

# Airworthiness Directive Schedule

## Aeroplanes

### De Havilland DHC-3 Series (Otter)

25 June 2020

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- Notes:**
1. This AD schedule is applicable to Viking Air Limited DHC-3 Otter aircraft (formerly Bombardier Inc. and De Havilland Canada) manufactured under Transport Canada Type Certificate No. A-27.
  2. Transport Canada (TC) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these aircraft. State of Design ADs can be obtained directly from the Transport Canada website at <http://wwwapps3.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/awd-lv-cs1401.asp?rand>  
FAA ADs can be obtained from the FAA website at [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgAD.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet)
  3. The date above indicates the amendment date of this schedule..
  4. New or amended ADs are shown with an asterisk \*

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**DCA/DHC-3/1 Electrically Heated Engine Pneumatic Lines – Inspection.**

**Applicability:** All model DHC-3 Turbo Otter modified in accordance with FAA STC No. SA3777NM or Canadian Supplemental Type Approval No. SA89-32.

**Requirement:** To detect and correct the electrical heating blanket wiring configuration of the heated engine pneumatic lines circuit, which could result in loss of pneumatic heating and subsequent loss of engine power or reverse propeller overspeed governing protection, accomplish the following:

1. Inspect the electrical wiring to the P<sub>3</sub> and P<sub>y</sub> engine pneumatic line heating blankets and to the P<sub>3</sub> heater warning light to determine if they are wired in a parallel configuration. Drawing no. 20075 Rev. I dated 10 October 2000, as referenced in A.M. Luton SIL-00-10-10 dated 22 March 2001, illustrates the correct wiring configuration.

**Note:** It is recommended that the electrical inspection wiring include a continuity check of the heating blanket line(s) to ensure they are serviceable. Then, after selecting the P<sub>3</sub> heater switch to the "On" position, if the line(s) quickly feel warm to the touch, this is an indication that the line(s) are correctly configured.

a) If the lines are correctly wired in a parallel configuration, proceed to requirement 2.

b) If it is determined that the P<sub>3</sub> and P<sub>y</sub> engine pneumatic line heating blankets and the P<sub>3</sub> heater warning light are incorrectly wired, modify the wiring to the configuration shown on drawing no. 20075 Rev. I dated 10 October 2000. It is recommended that a similar test be performed as described in the NOTE, after modifying the wiring.

2. Inspect the circuit breaker switch for the heated engine pneumatic lines circuit. If the engine installation utilizes both P<sub>3</sub> and P<sub>y</sub> heated pneumatic lines, install a 7.5 Amp circuit breaker switch in accordance with the drawing, unless already accomplished. Potter & Brumfield P/N: W31-X2M1G-7.5, as referenced in the SIL, is an acceptable circuit breaker switch. If the engine installation utilizes only a P<sub>3</sub> heated pneumatic line, install a 5.0 Amp circuit breaker switch in accordance with the drawing, unless already accomplished. Potter & Brumfield P/N W31-X2M1G-5.0 is an acceptable circuit breaker switch.  
(Transport Canada AD CF-2002-38 refers)

**Compliance:** 1. Within 300 TIS or by 31 March 2006, whichever occurs first.  
2. Within 300 TIS or by 31 March 2006, whichever occurs first.

**Effective Date:** 31 March 2005

**DCA/DHC-3/2 Elevator Servo Tab - Inspection.**

**Applicability:** All model DHC-3 Otter aircraft incorporating the flutter prevention modification installed in accordance with STC Number SA99-219, issue 1 or 2.

**Requirement:** To prevent structural failure of the R/H Elevator Servo Tab Balance Assembly (Viking p/n VALTOC1136-2), which could result in vibration and flutter of the elevator servo tab, incorporate the redesigned elevator servo tab, introduced by Viking Air Ltd. retro kit No. V3MK1151, in accordance with Viking Air Ltd. SB V3/01.  
(Transport Canada AD CF-2002-48 refers)

**Compliance:** Within 300 hours TIS.

**Effective Date:** 31 March 2005

**DCA/DHC-3/3A Elevator Servo-Tab Assembly – Modification**

- Applicability:** Model DHC-3 'Otter' aircraft fitted with a turbine engine and embodied with Supplemental Type Certificates (STCs) SA01-111, SA89-32 or SA02-15 and Model DHC-3 'Otter' aircraft fitted with a PZL ASZ-621R-MI8 engine and embodied with STC SA83-18.
- Note:** The applicability of this AD revised to include those DHC-3 aircraft with STC SA83-18 embodied. The AD title amended to reflect that the AD affects the elevator servo-tab and not the trim-tab.
- Requirement:** To reduce the probability of elevator servo-tab failure due to flutter, install one of the following elevator flutter prevention kits:
- A Viking Air Ltd. Retro Kit No. V3MK1148, issue 3 or later approved revisions per Viking Air Ltd., STC SA99-219 issue 3 or later approved revisions, or
- American Automotives Inc. Supplemental Type Certificate No. SA03-99 (FAA STC No. SA01059SE) with a new elevator servo-tab and redundant control linkage, or
- A modification approved by the CAA designed to prevent elevator servo-tab flutter. (Transport Canada AD CF-2006-02R1 refers)
- Compliance:** Within the next 300 hours TIS or by 26 December 2008, whichever occurs sooner.
- Effective Date:** DCA/DHC-3/3 - 27 April 2006  
DCA/DHC-3/3A - 26 June 2008

**DCA/DHC-3/4 Magneto Firewall Connector – Inspection**

- Applicability:** Model DHC-3 aircraft fitted with a radial engine and firewall magneto connector plugs as described in Viking Air Limited Service Bulletin (SB) No. V3/0001.
- Requirement:** To prevent failure of the magnetos and ignition system due to the lock wire hole on the ignition connector plug located on the firewall breaking, which could result in the plug vibrating loose and the magneto being grounded, accomplish the following:
1. Inspect the firewall ignition plug and receptacle for correct wire locking and security per the instructions in Bombardier Alert Service Bulletin A3/53 revision A or later approved revisions.
- Replace any damaged parts before further flight.
2. Amend the periodic inspections section of the maintenance schedule in the Maintenance Manual PSM 1-3-2 by inserting temporary revision TR14, dated 24 August 2001.
  3. Replace the firewall ignition connector per the instructions in Viking Air Limited SB V3/0001 dated 27 June 2007 or later approved revisions.
- (Transport Canada AD CF-2001-37R1 refers)
- Compliance:**
1. Within the next 50 hours TIS or by 26 September 2008, whichever occurs sooner.
  2. By 26 September 2008.
  3. By 26 December 2008.
- Effective Date:** 26 June 2008

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If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.

**CF-53-16 Modifications****Effective Date:** 1 March 1953**CF-54-03 Modifications****Effective Date:** 30 December 1954**CF-54-04 Compression Strut****Effective Date:** 30 December 1954**CF-54-07 Cargo Doors****Effective Date:** 1 June 1954**CF-54-09 Modifications****Effective Date:** 1 July 1954**CF-55-03 Modifications****Effective Date:** 30 December 1955**CF-55-06 Engine Breather Pipe Assembly****Effective Date:** 30 December 1955**CF-56-03 Modifications****Effective Date:** 30 December 1956**CF-56-08 Tailplane Trim****Effective Date:** 30 December 1956**CF-56-11 Flap Hydraulic Circuit Check Valve****Effective Date:** 30 December 1956**CF-56-12 Exhaust System Support****Effective Date:** 30 December 1956**CF-56-13 Propeller Counterweight Bearing Shaft****Effective Date:** 30 December 1956**CF-57-06 Modifications****Effective Date:** 30 December 1957

**CF-57-08 Sintered Metal Filter Assembly**

**Effective Date:** 30 December 1957

**CF-58-04 Clinch Nuts**

**Effective Date:** 30 December 1958

**CF-58-15 Flap Control Rods**

**Effective Date:** 30 December 1958

**CF-59-03 Modification**

**Effective Date:** 30 December 1959

**CF-59-07 Bellcrank Assemblies**

**Effective Date:** 30 December 1959

**CF-60-03 Wing Strut Spar**

**Effective Date:** 30 December 1960

**CF-61-04 Main Ski Axle Pins and Bushings**

**Effective Date:** 30 December 1961

**CF-61-05 Oil Delivery Lines**

**Effective Date:** 30 December 1961

**CF-62-05 Firewall Assemblies**

**Effective Date:** 30 December 1962

**CF-68-13 Elevator Tab Flutter**

**Effective Date:** 30 December 1968

**CF-69-12 Skis and Wheel Skis**

**Effective Date:** 30 December 1969

**CF-82-26R1 Tie Bar Assemblies**

**Effective Date:** 30 December 1982

**CF-82-34 Control Column Assemblies**

**Effective Date:** 30 December 1982

**CF-85-03R1 Cabin Utility Seats**

**Effective Date:** 30 December 1985

**CF-85-04 Elevator Pushrod**

**Effective Date:** 30 December 1985

**CF-89-20R1 Tailplane Rib Cracking**

**Effective Date:** 30 December 1989

**CF-91-16 Fuel Control Detent**

**Effective Date:** 30 December 1991

**FAA AD 98-18-08 A.M. Luton STC Mod**

**Effective Date:** 30 December 1998

**CF-99-05 Electrical System**

**Effective Date:** 30 December 1999

**CF-1999-06R1 Fire Detection**

**Effective Date:** 30 December 1999

**FAA AD 2011-01-09 PBE P/N 119003-11**

**Effective Date:** 9 February 2011

**CF-2014-14R1 Horizontal Stabiliser Actuator – Inspection**

**Effective Date:** 2 September 2014

**CF-2014-29 Turboprop Installations - Placards and Markings**

**Effective Date:** 11 September 2014

**CF-2015-05 Upper Wing Skin and Main Spar Lower Cap – Inspection**

**Effective Date:** 31 March 2015

**CF-2016-05R1 Levelling and Weighing – AFM Amendment**

**Applicability:** DHC-3 aircraft, all S/N embodied with Baron Short Take Off and Landing (STOL) kit (STC SA 94-114 or STC SA 0028NY).

**Effective Date:** CF-2016-05 - 8 February 2016  
CF-2016-05R1 - 29 June 2017

**CF-2017-11 Wing Strut Attach Bolts – Inspection**

**Effective Date:** 23 March 2017

**CF-2017-29 Main Wing Spar Lug Fitting and Tie-bar – Inspection**

**Applicability:** Viking Air Ltd. (formerly Bombardier Inc.) DHC-3 aeroplanes, all S/N.

**Effective Date:** 7 September 2017

**CF-2018-04 Airframe Corrosion and Cracking – Inspection**

**Applicability:** Viking Air Ltd. (formerly Bombardier Inc.) DHC-3 aeroplanes, all S/N.

**Effective Date:** 2 February 2018

**\* CF-2020-20 Wing Strut – Inspection**

**Applicability:** Viking Air Ltd. (formerly Bombardier Inc.) DHC-3 aeroplanes, all S/N.

**Effective Date:** 25 June 2020