Airworthiness Directive Schedule
Aeroplanes
De Havilland DHC-3 Series (Otter)
25 June 2020

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-Sur2/cawis-swimn/awd-iv-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

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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The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at http://www.caa.govt.nz/airworthiness-directives/states-of-design/ 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.

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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 P3 and P7 engine pneumatic line heating blankets and to the P3 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 P3 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 P3 and P7 engine pneumatic line heating blankets and the P3 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 P3 and P7 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 P3 heated pneumatic line, install a 5.0 Amp circuit breaker switch in accordance with 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-M18 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


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.


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.

Effective Date: 26 June 2008
The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at http://www.caa.govt.nz/airworthiness-directives/states-of-design/

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