



No.	CF-2009-15	1/2
Issue Date 17 April 2009		

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), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number: CF-2009-15

Subject: Fuel System Safety - Introduction of Maintenance Tasks

Effective: 7 May 2009

Applicability: Viking Air Limited DHC-7-1, DHC-7-100, DHC-7-101, DHC-7-102, DHC-7-103, DHC-7-110 and DHC-7-111 aircraft, all serial numbers.

Compliance: As indicated below, unless already accomplished.

Background: Viking Air Limited has completed a system safety review of the aircraft fuel system against fuel tank safety standards introduced in Chapter 525 of the Airworthiness Manual through Notice of Proposed Amendment (NPA) 2002-043. The identified non-compliances were then assessed using Transport Canada Policy Letter No. 525-001, to determine if mandatory corrective action is required.

The assessment showed that supplemental maintenance tasks would be required to prevent potential ignition sources within the fuel system, which could result in a fuel tank explosion. Viking Air Limited has revised Chapter 5 of the DHC-7 Maintenance Manual, PSM 1-7-2, to introduce the required maintenance tasks.

Corrective **A. Incorporation of Fuel System Limitations (FSL) Tasks**

Actions: Within 60 days after the effective date of this directive, revise the Transport Canada approved maintenance schedule by incorporating all the FSL tasks introduced in Chapter 5 of the DHC-7 Maintenance Manual, PSM 1-7-2, through the following Temporary Revisions (TR).

TR Number	Task Number	Description
5-106	FSL 01 to FSL 08	FSL Introduction, Rules and Task List
5-107	FSL-01	Detailed Inspection of the Electrical Isolation between the Fuel Probe Conduit and the Aircraft Structure
5-108	FSL-02	Detailed Inspection of the Electrical Bonding between the Pressure Relief Valve Chassis and the Wing Fuel Tank Structure
5-112	FSL-03	Special Detailed Inspection of the Dielectric Voltage Properties of the Aluminum Loaded Primer and Enamel on the Wing Top and Bottom Skin

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 www.tc.gc.ca/civilaviation/communications/centre/address.asp

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5-113	FSL-04 and FSL-05	Detailed Visual Inspection of the Bonding Jumpers within the Fuel Tank for Condition, Security, Signs of Chafing and Corrosion and Electrical Bonding Check of all Jumpers
5-109	FSL-06	Replacement of the Fuel Probe Wiring within the Fuel Tank
5-110	FSL-07	Functional Check of the Wing Dry Bay Drain Valve
5-111	FSL-08	Detailed Visual Inspection of the Fuel Containment Coating within the #4 Flap Track Canoe Fairing Landing Light Compartment and Visual Inspection of the Surge Bay Drain Line

Note: Later revisions to the above-listed tasks introduced through Transport Canada-approved TRs or general revisions of the Maintenance Manual are also acceptable.

B. Phase-in time for Tasks FSL-01, FSL-02, FSL-03, FSL-04 and FSL-05

For aircraft that have, on the effective date of this directive, accumulated 12000 hours air time or more, carry out the initial inspection of the above-listed tasks within 6000 hours airtime or 36 months, whichever occurs first.

C. Phase-in time for Tasks FSL-06

For aircraft that have, on the effective date of this directive, accumulated 34000 hours air time or more, carry out the above-listed task initially within 6000 hours airtime or 36 months, whichever occurs first.

D. Phase-in time for Tasks FSL-07

For all applicable aircraft, carry out the above-listed task initially within one month.

E. Phase-in time for Tasks FSL-08

For aircraft that have, on the effective date of this directive, accumulated 2000 hours air time or more, carry out the initial inspection of the above-listed task within 2000 hours airtime or 12 months, whichever occurs first.

Authorization: For Minister of Transport, Infrastructure and Communities

Derek Ferguson
Acting Chief, Continuing Airworthiness

Contact: Mr. Philip Tang, Continuing Airworthiness, Ottawa, telephone 613-952-4365, facsimile 613-996-9178 or e-mail philip.tang@tc.gc.ca or any Transport Canada Centre.