



No.	CF-2006-02R1	1/2
Issue Date	22 April 2008	

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.

Number: CF-2006-02R1

Subject: Elevator Servo-Tab Assembly Failures

Effective: 1 June 2008

Revision: Supersedes Airworthiness Directive CF-2006-02 issued on 24 January 2006.

Applicability: All Viking Air Ltd. (formerly Bombardier Inc.) Model DHC-3 aircraft with any of the following supplemental type certificates (STC) installed: SA01-111; SA89-32; or SA02-15 for turbine engines or STC SA83-18 for the PZL ASZ-621R-MI8 engine.

Compliance: Within 300 hours airtime or six (6) months from the effective date of this directive, whichever occurs first.

Background: There have been several reported incidents on DHC-3 aircraft whereby the control rod of the elevator servo-tab system detached from the servo-tab. This failure can cause severe flutter of the elevator servo-tab and could lead to loss of control of the aircraft.

After the issue of CF-2006-02 which only affected turbine engine installations, Transport Canada reviewed the service history of all Model DHC-3 aircraft and determined that those with the higher powered PZL ASZ-621R-M18 reciprocating radial engine installed (STC SA83-18) could reach cruise speeds similar to the turbine engine-powered DHC-3 aircraft. The higher cruise speeds reduce the flutter margins, which can lead to elevator servo-tab failures, resulting in flutter and loss of control of the aircraft.

This revision is issued to amend the applicability section of this directive to add those DHC-3 aircraft with STC SA83-18 installed to the list of affected STCs identified previously.

We have also corrected the subject title to reflect that the corrective action affects the elevator servo-tab, not the trim-tab, and we have identified the Canadian STC number for the American Automotives Inc. STC in paragraph (b) below.

Corrective Action: Unless previously accomplished, install one of the following elevator flutter prevention kits:

- (a) Viking Air Ltd. Retro Kit No. V3MK1148, Issue 3, or later revisions approved by Transport Canada, in accordance with Viking Air Ltd., STC SA99-219 (Issue 3) or later revisions approved by Transport Canada;
- (b) American Automotives Inc Supplemental Type Certificate No. SA03-99 (FAA STC No. SA01059SE) with new elevator servo-tab and redundant control linkage; or

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

- (c) Other modifications, approved by Transport Canada, designed to prevent the elevator servo-tab flutter.

Authorization: For Minister of Transport, Infrastructure and Communities

Derek Ferguson
Acting Chief, Continuing Airworthiness

Contact: Mr. Bill Miller, Continuing Airworthiness, Ottawa, telephone 613-952-4388, facsimile 613-996-9178 or e-mail millerw@tc.gc.ca or any Transport Canada Centre.