



AD Number: **CF-2015-05**
Issue Date: **18 March 2015**

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) 521 Division X**. 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-2015-05 **Effective Date:** 31 March 2015

ATA: 57 **Type Certificate:** A-27

Subject: Wings – Cracking of the Wing Upper Skin Corrugations and the Main Spar Lower Cap

Applicability: Viking Air Limited (formerly Bombardier Inc.) model DHC-3 aeroplane, all serial numbers.

Compliance: As indicated below, unless already accomplished.

Background: An operator found cracks on the upper inner wing skin corrugations emanating from the rib attachment points. As a result, Viking Air Limited released Service Bulletin (SB) V3/0002, Revision NC to inspect for possible corrugation cracking between wing stations 34 and 110. Subsequently, operators discovered additional corrugation cracking at multiple wing stations and on the main spar lower cap.

These cracks, if not detected and rectified, may compromise the structural integrity of the wing. In order to address this potentially unsafe condition, Viking Air Limited has issued SB V3/0002, Revision C, specifying repetitive internal borescope and visual inspections. This AD is issued to mandate compliance with that SB.

Corrective Actions:

1. Within 30 days from the effective date of this AD, determine the accumulated air time for each wing. If the air time is not known, contact Technical Support at Viking Air Limited.
2. Within 30 days from the effective date of this AD, determine all installed Supplemental Type Certificates (STC) or modifications affecting the wings. Based on the accumulated air time determined from paragraph 1 and prior to the initial inspection schedules per Table 1, incorporate access panels as follows:
 - i. If the aeroplane is free of STCs or any other modifications affecting the wings, incorporate additional inspection access panels in accordance with the Accomplishment Instructions Part A of Viking Air Limited SB V3/0002, Revision C or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
 - ii. If the aeroplane is fitted with STC SA03-50, incorporate additional inspection access panels in accordance with the Accomplishment Instructions of Viking Air Limited SB 3-STC(03-50)-001, Revision NC or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
 - iii. If there are other STCs or modifications affecting the wings, the operator must contact the STC holder or an appropriate Transport Canada delegate to obtain a Transport Canada-approved alternative means of compliance to incorporate additional inspection access panels.

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.

For all changes to your mailing address, contact your TC Regional Aircraft Registration Office at 1-800-305-2059, option 1 for English, 2 for Aircraft Registration and then select the appropriate region.

24-00221(04-2005)

Full document details: TC AD CF-2015-05 2015

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3. Based on the accumulated air time on the wings determined in paragraph 1 of this AD, perform initial and repetitive borescope and visual inspection of both the left hand and right hand wing box, in accordance with the Accomplishment Instructions Part B of Viking Air Limited SB V3/0002 Revision C or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada using the schedules per Table 1:

Table 1: Inspection Schedule

Effectivity	Initial Inspection	Repetitive Inspection
If SB V3/0002 Revision A or B was complied with prior to the effective date of this AD	not applicable (inspection carried out when complying with Revision A or B of SB V3/0002)	not to exceed every 1600 wing air time hours or 2100 flight cycles, whichever occurs first
less than 31 200 wing air time hours	within 800 wing air time hours or 6 months from the effective date of this AD, whichever occurs first	
31 200 wing air time hours or more but less than 31 600	prior to accumulating 32 000 wing air time hours or within 6 months from the effective date of this AD, whichever occurs first	
31 600 wing air time hours or more	within 400 wing air time hours or 3 months from the effective date of this AD, whichever occurs first	

4. If any cracks are found, contact Technical Support at Viking Air Limited for an approved repair and incorporate the repair prior to further flight. The approved repair must specifically reference this AD.

Authorization: For the Minister of Transport,

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

Contact: Yosha Mendis, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.