



# AIRWORTHINESS DIRECTIVE

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*This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) to ADs.*

**Number:**

CF-2017-17

**Effective Date:**

1 June 2017

**ATA:**

57

**Type Certificate:**

A-22

**Subject:**

Wing – Cracking of Flap and Aileron hinge arm support brackets and Rear Spar Web

**Applicability:**

Viking Air Ltd. (formerly Bombardier Inc.) model DHC-2 Mk. I, DHC-2 Mk. II and DHC-2 Mk. III aeroplanes, all serial numbers.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

It was reported that a crack was found in the wing rear spar web, part number C2W1007, at wing station 123.5 where the flap outboard hinge is attached. An aileron hinge bracket has also been found cracked. Viking Air Ltd. analysis shows that similar cracks may develop on the wing rear spar web and flap/aileron hinge arm support brackets at the other flap/aileron hinge attachment locations.

Undetected cracking of the wing rear spar or flap/aileron hinge bracket may lead to the failure of the component with consequent loss of aeroplane control.

**Corrective Actions:**

On or before the next scheduled 400 hour periodic inspection, or within 6 months, whichever comes first, from the effective date of this AD, visually inspect the left hand and right hand wing rear spar and flap/aileron hinge arm support brackets in accordance with Section II Accomplishment Instructions of Viking Air Ltd. Service Bulletin (SB) V2/0009 revision A or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

If agricultural configuration is installed (SOO Mod 2/984), inspect the exterior store support arm bracket at WS 101.24 in accordance with Section II Accomplishment Instructions of Viking Air Ltd. SB V2/0009 Revision A or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

If any part is found cracked, damaged or discrepant it shall be repaired or replaced before next flight.

Within 5 days from the completion of this inspection, complete and submit the Operator Reply Forms (Left Hand Wing and Right Hand Wing) included in the Viking Air Ltd. SB V2/0009 in accordance with the instructions on the form.

As of the effective date of this AD, no person shall install a wing on a DHC-2 aeroplane unless the intent of this AD has been accomplished.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Rémy Knoerr

Chief, Continuing Airworthiness

Issued on 18 May 2017

**Contact:**

Ross McGowan, Continuing Airworthiness, Ottawa, telephone 1-888-663-3639, facsimile 613-996-9178  
or e-mail [AD-CN@tc.gc.ca](mailto:AD-CN@tc.gc.ca) or any Transport Canada Centre.