AIRWORTHINESS DIRECTIVE

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-2018-04

Effective Date:

2 February 2018

ATA:

27

Type Certificate:

A-27

Subject:

Airframe – Corrosion and cracking

Applicability:

Viking Air Ltd. (formerly Bombardier Inc.) model DHC-3 aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

Service experience indicates that aging aircraft are more likely to be adversely affected by corrosion, wear and fatigue cracking. Viking Air Limited (Viking), as Type Certificate holder for the DHC-3, has developed a supplementary inspection and corrosion control program which identifies specific areas that must be inspected to ensure that corrosion, wear and fatigue-related degradation do not result in an unsafe condition. The program is documented in Viking Product Support Manual (PSM) 1-3-5 DHC-3 Otter Supplementary Inspection and Corrosion Control Manual (SICCM).

Corrosion levels are defined in PSM 1-3-5 as a means for assessing the effectiveness of the corrosion control program and recording the results of the inspections mandated by this AD.

Each item specified for inspection in PSM 1-3-5 has been substantiated to Transport Canada as having experienced significant degradation in service and, as having the potential to develop into an unsafe condition if the inspections defined in the PSM are not implemented.

Corrective Actions:

A. Within 18 months from the effective date of this AD, accomplish all Specific Supplemental And Corrosion Inspections specified in Part 2 of SICCM PSM 1-3-5, Revision IR, dated 21 December 2017 (hereafter referred to as "the Manual") or later revisions accepted by Transport Canada.

B. If corrosion or other damage is detected during an inspection, perform further inspection, categorize the corrosion level, repair/rework/replace and re-protect affected parts in accordance with part 3 of the Manual.

   Note: If corrosion is detected, the level of corrosion should be included in the aircraft maintenance record where completion of the inspection is being recorded.

C. If corrosion or other damage will be repaired rather than having the part replaced, repair before next flight in accordance with Viking PSM 1-3-2 or PSM 1-3-3 or Federal Aviation Administration Advisory Circular (AC) 43.13-1B or AC 43-4A, as applicable. In cases where the damage is outside the limits contained in these publications, repair before next flight in accordance with a repair design approved by Viking Design Approval Organization or acceptable to the local Civil Aviation Authority. The Viking approved repair must specifically reference this AD.

D. Subsequently, at the intervals specified in Part 3 of the Manual, repeat the inspections specified in Part 2 of the Manual.

E. Inform Viking of Level 2 and Level 3 corrosion as specified in paragraph 5 of Part 3 of the Manual.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Craig McAllister
Acting Chief, Continuing Airworthiness
Issued on 19 January 2018

Contact:

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