AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/DHC-2/27 Amdt 2 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

DHC-2 (Beaver) Series Aeroplanes

AD/DHC-2/27 Horiztonal Stabiliser Front Spar 7/2007 Amdt 3

Applicability: All Viking Air Ltd. (formerly Bombardier Inc.) DHC-2 Mk. I, Mk. II and Mk. III aircraft.

Requirement: 1. Perform the following, in accordance with Viking Air Service Bulletin (SB) 2/47 Revision E, dated 23 January 2007, or later Transport Canada approved revision:

   a. For all aircraft, remove the tailplane front spar pick-up brackets and carry out a fluorescent penetrant inspection of the tailplane front spar web for cracks in the area of the pick-up brackets in accordance with Appendix A of Viking Air SB 2/47 Revision E, or later Transport Canada approved revision.

      (i) If cracks are found on aircraft pre-mod 2/758 (aircraft having no gusset plate installed on the rear face of the tailplane front spar), replace the tailplane front spar before further flight.

      (ii) If cracks are found on the spar web of aircraft with Modification 2/758, replace the spar within 400 flight hours time in service after the crack finding.

      (iii) Replace previously repaired front spars with stop-drilled cracks as found during the above inspections within 12 months after the effective date of this Directive. Replace spars with cracks that have progressed beyond previously stop-drilled holes before next flight.

   b. In addition to the Requirement 1.a. fluorescent penetrant inspection, for aircraft without Modification 2/466, visually inspect the front spar web in the area of the lightening holes for cracks between the pick-up brackets. If cracks are found, replace the spar before next flight.

2. Incorporate Modifications 2/436, 2/466 and 2/758, unless already accomplished.

Report cracks detected during any Requirement 1.a. inspection to Viking Air Limited Technical Support, at technical.support@vikingair.com.

Note: Transport Canada AD CF-1991-42R1 refers.
DHC-2 (Beaver) Series Aeroplanes

AD/DHC-2/27 Amdt 3 (continued)

Compliance: 1. Within 200 hours time in service after 5 July 2007, if not previously accomplished in accordance with SB 2/47 Revision D.

1.a. Repeat the inspection within 2 years of the last inspection, and thereafter at intervals not to exceed 2 years.

2. Within 12 months after the effective date of this Directive.

This Amendment becomes effective on 5 July 2007.

Background: Cracks have been discovered in the tailplane front centre spar web and gusset plate of an Australian aircraft.

Amendment 1, effective 6 March 1992, corrected an oversight in the Compliance and introduced a reference to Transport Canada AD CF-91-42.

Amendment 2 updated the revision status of the requirement document, with no change to the compliance.

Amendment 3 is issued in response to a revision of the related Transport Canada AD, which was prompted by reports of cracks in the front spar centre web of the tailplane at the pick-up bracket and at lightning holes. The TC AD revision was issued to reflect the new requirements to inspect the tailplane front spar web behind the pick-up brackets using fluorescent penetrant inspection, instead of the visual inspection method used previously.

The original issue of this AD became effective on 30 April 1992.

David Punshon
Delegate of the Civil Aviation Safety Authority

16 May 2007