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RDIMS/SGDDI : 16619671  
PTS Number    Numéro SSP  
N/A

Sent via email

26 June 2020

Mr. Arvin Holland  
Texas Air Services, Inc.  
2602 45th Street  
Dickinson, Texas 77539  
USA

**Subject:**            Alternative Means of Compliance (AMOC) with Transport Canada (TCCA) Airworthiness Directive (AD) CF-2019-02 applicable to Viking Air Ltd. (formerly de Havilland) model DHC-6 Aeroplane – Main Landing Gear Leg Part Number (PN) C6UM1110 – AMOC No. AARDG 2020/A52

**References:**    1. Email – A. Holland (Texas Air Services, Inc. (TAS)) to R. McGowan (AARDG) – Information on Revision of TAS Repair Specification TAS-MLG-C6UM (RDIMS 16619646)  
2. Email – A. Holland (TAS) to P. Tang (AARDG) – Request for AMOC Revision (RDIMS 16619651)  
3. TCCA AD CF-2019-02, ‘Time Limits/Maintenance Checks – Airworthiness Limitations – Implementation’, effective 23 January 2019  
4. AMOC AARDG 2019/A46 (RDIMS 15831152)  
5. AMOC AARDG 2020/A27 (RDIMS 16418714)  
6. Viking Air Ltd. (Viking) Technical Bulletin (TB) V6/00063, ‘Inspection, of DHC-6 Main Landing Gear Leg Machining (C6UM1110) HY-TUF Material and Pivot Fittings’, Revision A, dated 25 June 2019  
7. Viking TB V6/00064, ‘Repair of DHC-6 Main Landing Gear Leg Machining (C6UM1110) HY-TUF Material and Pivot Fittings’, Revision A, dated 23 January 2019  
8. TAS Repair Specification TAS-MLG-C6UM, Revision D, dated 26 March 2020; (RDIMS 16619646)  
9. TAS Form T-100 C, ‘DHC-6 MLG Axle Bore Housing Inspection and Repair Sheets’, Revision A dated 8 June 2020; (RDIMS 16619651)  
10. TAS Form T-100 C-1, ‘DHC-6 MLG Bolt and Flange Hole Inspection and Repair Sheets’, Revision A dated 8 June 2020 (RDIMS 16619651)  
11. TAS Form T-100 C-2, ‘DHC-6 MLG Pivot Fittings Inspection and Repair Sheets’, Revision A dated 8 June 2020 (RDIMS 16619651)

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Dear Mr. Holland,

Texas Air Services, Inc. (TAS) pointed out that during accomplishment of the overhaul of the MLG gear leg as mandated by TCCA AD CF-2019-02 (Ref. 3) and in accordance with instructions found in Viking Air Ltd. (Viking) TB V6/00063 (Ref. 6) Section 9.F. for Dimensional Inspections, the instructions call for any part falling outside the minimum/maximum allowable dimensions to be replaced or repaired. However, there is no instruction in Viking TB V6/00064 (Ref. 7) for the repair of the brake flange attachment holes (Ref. 6 Section 9.F.2.g), the axle housing (Ref. 6 Section 9.F.2.h) or the axle bolt holes (Ref. 6 Section 9.F.2.i). In addition, a repair is not allowed when the Visual Inspection of the pivot fitting lugs (Ref. 6, Section 9.C.e) finds the lug thickness to be less than 0.270 inches. There were also no axle housings parts available for replacement.

TAS obtained a Federal Aviation Administration (FAA) approval for a weld build-up process documented in Repair Specification TAS-MLG-C6UM to restore the MLG axle bore housing, axle bolt holes, brake flange holes and pivot fitting lugs back to the original manufacturing dimensions. Subsequently, TAS applied for and TCCA granted the Ref. 4 and 5 AMOCs with AD CF-2019-02 authorizing the weld build-up repairs.

Through the Ref. 1 email, TAS informed TCCA that Repair Specification TAS-MLG-C6UM, Revision C referenced in the two TCCA AMOCs has been revised to Revision D (Ref. 8) to add more details to the procedures. Since the revision to the Repair Specification necessitates a revision or reissuance of the two TCCA AMOCs, TAS submitted an application through the Ref. 2 email.

Pursuant to CAR Part VI, Subpart 5, Division III, Section 605.84(4), TCCA has reviewed the Ref. 2 request and hereby approves the AMOC No. AARDG 2020/A52 with TCCA AD CF-2019-02, authorizing the repair of the MLG axle housing bore, axle bolt holes, brake flange attachment holes and pivot fitting lugs by weld build-up and machining to original manufacturing dimensions using the Ref. 8 FAA approved Repair Specification, subject to the following conditions:

- The inspection measurement record and repair of the MLG axle housing bore is accomplished in accordance with the Ref. 9 TAS Inspection and Repair Sheets;
- The MLG axle housing must be replaced if any measurement of the housing bore exceeds the repair limit mentioned in the Ref. 9 TAS Inspection and Repair Sheets;
- The inspection measurement record and repair of the MLG axle bolt holes and brake flange holes is accomplished in accordance with the Ref. 10 TAS Inspection and Repair Sheets;
- The MLG axle housing must be replaced if any measurement of the MLG axle bolt holes or flange holes exceeds the repair limit mentioned in the Ref. 10 TAS Inspection and Repair Sheets;
- The inspection measurement record and repair of the MLG pivot fitting lugs is accomplished in accordance with the Ref. 11 TAS Inspection and Repair Sheets;

- The MLG pivot fitting must be replaced if any measurement of the lug thickness exceeds the repair limit mentioned in the Ref. 11 TAS Inspection and Repair Sheets;
- All other requirements of the MLG leg overhaul tasks that are not specifically referenced above remain applicable and must be complied with.

This AMOC is applicable only to Viking Air Ltd. DHC-6 aeroplanes installed with MLG Leg part number C6UM1110 having MLG axle housing bore, axle bolt holes, brake flange holes or pivot fitting lugs repaired by TAS using the Ref. 8 FAA approved Repair Specification and Ref. 9 to 11 Inspection and Repair Sheets. For non-Canadian registered aeroplanes, approval to use this AMOC must be obtained from the governing regulatory authority of the state of registry if that authority does not automatically accept TCCA AMOCs. This AMOC does not cancel the Ref. 4 or 5 AMOCs – they remain in effect for previous repairs that met the conditions specified in those two AMOCs.

Should you have any questions on this AMOC, please contact Mr. Philip Tang by phone at 613-465-1095 or via email at [philip.tang@tc.gc.ca](mailto:philip.tang@tc.gc.ca).

Yours truly,



Rémy Knoerr  
Chief, Continuing Airworthiness  
National Aircraft Certification

Cc: Ms. Sarah MacLeod, Executive Director, Aeronautical Repair Station Association