EASA Safety Information Bulletin

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Subject: Model DHC-6 all series “Twin Otter” aeroplanes - Revision of Maintenance Instructions and Introduction of a Flight Control Cable Return Programme.

Ref. Publications: Transport Canada Civil Aviation (TCCA) Service Difficulty Alert (SDA) AL 2007-03R1 “DHC 6 – (Twin Otter) Control Cable Inspection” dated 10 June 2009.

Viking Air Limited DHC-6 Service Letter DHC6-SL-27-002, issue 1 dated 18 March 2009 and multiple Temporary Revisions of the DHC-6 Product Support Manuals (PSM).

Description: The Type Certificate holder - Viking Air Limited - has decided to take a set of measures, to address certain points that emerged as an outcome of a conducted survey of operators. The survey was initiated during the accident investigation of a DHC-6-300 aeroplane. Transport Canada Civil Aviation has issued the SDA AL 2007-03R1 to ensure operators and maintainers are aware of and obey the latest Instructions for Continued Airworthiness (ICA) for the DHC-6 Twin Otter as well as the Structural Components Service Life Limits Manual PSM 1-6-11 which was mandated by TCCA Airworthiness Directive CF-2000-14.

Following Temporary Revisions (TR) of Product Support Manuals were issued to supplement the existing maintenance instructions relating to the flight control cables as detailed below:

- TR 100 of EMMA Inspection Work Cards, PSM 1-6-7-IC, adds an elevator and rudder cable systems inspection to EMMA Card No. SP1 for operations in tropical environment.

- TR 101 of the Inspection Requirements Manual, PSM 1-6-7, relates to operators with non-standard utilization rate of their fleet i.e. above 2 Flight Cycles per Flight Hour. Such operators shall consult Viking Air Limited for setting up customized maintenance instructions, adapted to their type of operation.

- For the DHC-6 series 300 Maintenance Manual, PSM 1-63-2, TRs 27-16, 27-20 and 27-21 revise the general rigging instructions of control cables and TRs 27-17 and 27-18 introduce inspections for the elevator and rudder control cables.

- For the DHC-6 series 100/200 Maintenance Manual, PSM 1-6-2, TRs 123,124, 128 and 129 revise the general rigging instructions of control cables, and TRs 125 and 126 introduce inspections for the elevator and rudder control cables.

Besides, Viking Air Limited through Service Letter DHC6-SL-27-002, issue 1 dated 18 March 2009, has introduced its "Flight Control Cable Return Program". This programme aims at surveying every premature removal of control cables - carbon or stainless steel- done prior to the original equipment manufacturer recommended service life limit.
EASA supports this initiative and advises all DHC-6 operators to take part in this programme.

EASA recommends that all flight control cables that are replaced at their mandatory replacement time of 12 months or 5 year, be inspected, and that any finding of damaged, worn or corroded flight control cable, beyond the acceptance criteria detailed in the DHC-6 Maintenance Manual Chapter 20 – Standard Airframe Practices, be reported to Viking Air.

More generally EASA underlines the reporting requirements as defined in Commission Regulation (EC) No 2042/2003, paragraphs M.A.202 and 145.A.60. The reporting allows proactive monitoring for trends that could affect continued airworthiness of aeronautical products.

This SIB is published to ensure that all owners, operators and maintenance personnel of affected aircraft, registered in European Union member states or associated countries, are made aware of these publications and instructions therein.

Applicability: Viking Air Limited (formerly De Havilland Canada) Model DHC-6 series aeroplanes.

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