Ministry of Transport, Public Works and Water Management Directorate-General of Cicil Aviation Aeronautical Inspection Directorate



Airworthiness Directive of the Netherlands

Bijzondere Luchtwaardigheids Aanwijzing - BLA

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Caution

In accordance with the Civil Air Navigation Regulations (RTL), Articles 76 and 88, the following Airworthiness Directive (BLA) is issued by the Director-General of Civil Aviation of the Netherlands (Directeur-Generaal van de Rijksluchtvaartdienst-RLD). Airworthiness Directives affect aviation safety. These are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive

BLA nr: 1998-019/2

Date : June 18, 1999

FOKKER SERVICES B.V. (formerly Fokker Aircraft B.V.)

RLD Type Certificate Nr.:

Model F.27 series

A22F

(A)

Correction issued September 10, 1999

ICE & RAIN PROTECTION - STABILIZER DE-ICING MONITORING SYSTEM - INTRODUCTION

Description:

A number of operators of Fokker Model F.27 Mk.050 (Fokker 50) series aircraft have reportedly experienced malfunctions of the tail de-icing system. After prolonged operation at very low outside air temperatures, one or more sections of the de-icing boots do not inflate when the system is selected ON. Investigation showed that failure to inflate the boot may be caused by freezing of one or more distributor valves. Early model F.27 "Friendship" aircraft are equipped with a tailplane de-icing system which enables the flight crew to monitor the correct functioning of each individual "boot" segment. On later model F.27 aircraft, however, a similar tail de-icing system is installed as on the Fokker 50, where operation cannot be monitored. Consequently, information on the system's operational status is unavailable to the flight crew, and any failure during flight would not be detected. Since an unsafe condition had been identified that was also likely to exist or develop on aircraft of this type design, Airworthiness Directive (BLA) 1998-019 was issued to require the introduction of a system which will monitor the operational status of the horizontal and vertical stabilizer de-icing, and provide a warning in the cockpit when failure to correctly inflate any boot occurs. Recently, RLD were notified that operators have experienced nuisance warnings of de-icing boot low pressure, caused by failure of one or more stabilizer de-icing boots pressure switches. As a reaction to this, some operators have de-activated the stabilizer de-icing monitoring system. The exact failure mode of the pressure switches has now been determined, but modified pressure switches will not be available in sufficient quantity on short notice to meet the original compliance requirement of this directive. RLD has carefully considered all the available information and has agreed to revise the BLA to introduce the correct post-modification MMEL-item, including a provision for operation with a de-activated system, to be used in case of continued pressure switch failures.

Applicability: Fokker Aircraft B.V. Model F.27 Mk.200, Mk.200MAR (Maritime Patrol Aircraft), Mk.400M, Mk.500, Mk.500F, Mk.500RF and Mk.600, serial numbers 10603 through 10692.

Effective date:

July 1, 1999

Compliance:

Required as indicated, unless accomplished previously.

- (a) Within the next 18 calender months after March 15, 1998 (the effective date of the original issue of this directive), install and/or activate the monitoring system in accordance with the <u>Accomplishment Instructions</u> of Fokker Service Bulletin F27/30-44 dated February 20, 1998 or a later RLD-approved revision.
- (b) Before further flight after the effective date of this directive, amend the Master Minimum Equipment List (MMEL) in accordance with **Appendix I** of this directive. This may be accomplished by inserting a copy of this directive into the MMEL;

NOTE 1: After compliance with paragraph (a) of this directive, the MMEL amendment as provided by **Appendix I** of this directive remains effective.

(c) To allow operators to utilise the MMEL exception as provided by **Appendix I** of this directive for a longer "repair" time period than is customary, a further amendment of the MMEL is introduced with **Appendix II** of this directive. This amendment is to be used ONLY when present standard pressure switches continue to fail and need replacement AND replacement pressure switches, either present standard or modified, are unavailable on short notice. The MMEL may be amended by inserting a copy of this directive into the MMEL.

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(d) As soon as modified pressure switches become available, within the next ten (10) calendar days thereafter, replace the affected pressure switches in accordance with available maintenance practices.

NOTE 2: At any time upon compliance with paragraph (d) of this directive, the MMEL amendment as provided by Appendix II of this directive must be removed from the MMEL.

Remarks:

- Operators of the affected aircraft may obtain copies of the referenced service information upon request directly from Fokker Services B.V., Technical Services Dept., P.O.Box 231, 2150 AE Nieuw-Vennep, The Netherlands; telephone (31) 252-627-350; facsimile (31) 252-627-211.
- Compliance with this AD must be recorded in the proper Aircraft Log Book(s).
- This revision supersedes and cancels Airworthiness Directive (BLA) 1998-019 dated February 27, 1998.

Address inquiries concerning this AD to:

Bureau Coordination & Technical Information (CTI); Telephone 31-(0)23-566 3155; Facsimile 31-(0)23-566 3006; Telex 74592 rldli nl E-mail "info.register@rld.minvenw.nl"

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APPENDIX I

Insert the following in Chapter 30 ICE AND RAIN PROTECTION of the

FOKKER 27 MASTER MINIMUM EQUIPMENT LIST

	CHAPTER 30	NUMBER INSTALLED		
SEQ NUMBER	ICE AND RAIN PROTECTION ITEM		NU	MBER REQUIRED FOR DISPATCH REMARKS AND/OR EXCEPTION
-10-7	"TAIL DE-ICE LOW PRESS" Light	1	0	May be inoperative or may be continuously ON after activation of the system provided: - satisfactory operation of the automatic and manual de-icing mode of all tail de-icing boot sections is visually verified if the flight is conducted into known or forecast icing conditions.

APPENDIX II

Insert the following in Chapter 30 ICE AND RAIN PROTECTION of the

FOKKER 27 MASTER MINIMUM EQUIPMENT LIST

NOTE: For the period that modified pressure switches have been ordered, but not yet delivered, the repair time associated with item 30-10-7 must be limited to one hundred and twenty (120) consecutive calander days (2880 hours). Under the same condition (no modified pressure switches having been delivered) item 30-10-7 may also be applied with intermittent inadvertent operation of the TAIL DE-ICE LOW PRESS light.