Inspectie Verkeer en Waterstaat

Civil Aviation Authority Netherlands
Airworthiness Directive

Nr. NL-1996-149 R1 Distribution : **L**

Date : July 31, 2006

Type Certificate Holder :

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

F27 Mark 050, Mark 0502 and Mark 0604

EASA Type Certificate Nr. A.036

Caution

This Airworthiness Directive is issued by the Minister of Transport, Public Works and Water Management in accordance with the Aviation Act 2001 (Wet Luchtvaart), Article 3.22. Airworthiness Directives affect aviation safety. These are regulations which require immediate attention. No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements thereof, unless otherwise agreed with the Authority of the State of Registry (EC2042/2003, M.A.201 & M.A.303).

THIS AIRWORTHINESS DIRECTIVE IS PUBLISHED BY THE CAA-NL :
• acting for and on behalf of the European Aviation Safety Agency (EASA), as Airworthiness Authority (ICAO Annex 8) of the State of Design for the affected product(s) with reference to 21A.3B (a) and (b); and
• has been approved under EASA reference Number 2006-0230 dated July 31, 2006.

Supersedure : This directive supersedes and cancels Airworthiness Directive (BLA) 1996-149 dated December 31, 1996.

Subject : ENGINE CONTROLS - GROUND-IDLE STOP ASSEMBLY - INTRODUCTION

Applicability : **Fokker Aircraft B.V.** Model F.27 Mk.050, Mk.0502 and Mk.0604 aircraft, serial numbers 20103 through 20317, 20321, 20324, 20327, 20329 and 20331.

Reason : Analysis of flight tests with the Fokker 60 (F27 Mark 0604) aircraft revealed that the stop performance with rapid selection of reverse was less than expected. Previous flight tests with the Fokker 50 series (F27 Mark 050 and Mark 0502), which resulted in Airplane Flight Manual (AFM) performance data, were executed using a prototype of the Propeller Control Unit (PCU). All Fokker 50 series production aircraft have been delivered with the PCU production version installed, featuring a so-called slew-rate limiter. This system limits the rate of change of blade pitch angle to prevent the propeller speed to exceed the limit where the generators are automatically switched off. The slew-rate limiter becomes effective only when the power levers are in full reverse position. The lower rate of change of propeller pitch affects the average aerodynamic drag and lift, and consequently also the vertical load during an accelerate-stop. RLD issued Airworthiness Directive (BLA) 1996-128, which required corrections to be made to the "accelerate-stop distance" data in the AFM. Subsequently, Fokker Services developed a ground-idle stop mechanism that prevents the power levers to be moved beyond the ground-idle position during an accelerate-stop. Installation of this mechanism will also require the performance data and procedures in the AFM to be amended. Since a potentially unsafe condition has been identified that may exist or develop on other aircraft of the same type design, this directive retains the requirements of BLA 1996-128, and further requires the installation of a selectable Ground-Idle Stop Assembly, amendment of the performance data and procedures in the applicable AFM, and removal of the earlier interim AFM changes. The present Revision 1 was issued to identify the Fokker Services Manual Change Notification – Operational Documentation (MCNO) F50-015 that contains the required AFM changes to be used after modification of the aircraft. In addition, the applicability was amended to delete reference to the Model F27 Mark 0602, which was never taken into production. Apart from some editorial changes, the technical content and requirement(s) of this directive have not been amended.

Effective date : February 1, 1997

Mandatory Actions and Compliance Times : Required as indicated, unless accomplished previously.

(a) Before further flight after December 1, 1996 (the effective date of BLA 1996-128) for all F27 Mark 050 series aircraft, amend Section 6 - PERFORMANCE of the applicable AFM as follows:

(1) Correct the "available accelerate-stop distance":

(A) For **dry runways**, multiply the relevant figure by **0.9**;

(B) For **wet runways**, subtract **160 metres** from the relevant figure;

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(C) For **contaminated and slippery runways**, subtract **360 metres** from the relevant figure;

(2) The **required** accelerate-stop distance as calculated from the AFM for a given airplane weight and V_1 or V_{stop} must be **increased** in accordance with the data presented in paragraph (a)(1) of this directive.

Note 1 : The AFM changes of paragraph (a) of this directive may be accomplished by inserting a copy of this directive into the AFM.

(b) Within one calendar year after the effective date of this directive, modify the engine controls by installing the new ground-idle stop assembly Part Number (P/N) F8485-353-401, and two placards, P/N F8485-356-001, in accordance with the Accomplishment Instructions of Fokker 50/60 Service Bulletin (SB) F50-76-016 dated December 20, 1996 or a later EASA-approved revision.

Note 2 : For aircraft equipped with Pratt & Whitney Canada (P&WC) Model PW127B engines, concurrent with, or before the accomplishment of the modification as required by paragraph (b) of this directive, modify the Anti-Skid Unit's Electrical Power Supply in accordance with Fokker 50/60 SB F50-32-031. Airworthiness Directive (BLA) 1996-150 has been issued with regard to this subject.

(c) Before modification as required by paragraph (b) of this directive, contact Fokker Services to obtain the affected AFM Pages. Alternatively, Fokker Services have issued MCNO F50-015 dated April 12, 2005 that contains the same post-modification changes to the AFM. Thereafter, amend the applicable AFM and establish that the configuration of the aircraft is accurately reflected. If correct, all temporary changes as required by paragraph (a) of this directive may be removed from the AFM.

Reference Publication(s) :

Fokker Services SBF50-76-016
Fokker Services SBF50-76-016 R1
Fokker Services MCNO F50-015

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; e-mail technicalservices.fokkerservices@stork.com or can be downloaded from www.myfokkerfleet.com.**
- Compliance with this directive must be recorded in the proper Aircraft Log Book(s).

Address inquiries concerning this AD to : Civil Aviation Authority, Airworthiness Inspectorate, P.O. Box 575, 2130 AN Hoofddorp, The Netherlands; telephone +31-23-566-3155; facsimile +31-23-566-3006; e-mail Info.Register@ivw.nl.