



Airworthiness Directive of the Netherlands

Bijzondere Luchtwaardigheids Aanwijzing - BLA

Correspondence address
P.O. Box 575, 2130 AN Hoofddorp, The Netherlands

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 : 1998-100/2

(A)

Date : November 30, 1998

FOKKER SERVICES B.V.

(formerly Fokker Aircraft B.V.)

Model F.28 Mk.0100

RLD Type Certificate Nr.:

T-100-87

LANDING GEAR - WHEEL-SPEED SENSOR WIRING SHIELDING/GROUNDING - MODIFICATION

Description:

- RLD have recently received a report concerning an incident with a Fokker Model F.28 Mk.0100, where, during approach, the liftdumpers inadvertently deployed. Preliminary investigation has revealed that the outboard wheelspeed signal was induced to "high" by EMI, but the liftdumper arming test did not detect the signal because it was not transmitted until the skid control box was powered-up on landing gear DOWN selection. After careful evaluation of the available data, RLD considered that two separate design safety features, adequate EMI protection of the wheelspeed signal wiring and verification of erroneous "high" wheelspeed signals through the liftdumper arming test, were actually not effective. This condition, if not corrected, could lead to further similar incidents. Airworthiness Directive (BLA) 1998-042 was issued to require the section NORMAL PROCEDURES of the affected Airplane Flight Manual (AFM) to be amended to include a warning NOT to arm the liftdumper system prior to landing gear DOWN selection. Analysis of the liftdumper system protection against EMI and investigation into the Flight Control Computer (FCC) failure mode which caused the EMI have shown that aircraft in post-Service Bulletin (SB) F100-32-067 configuration are significantly less susceptible to EMI on the wheelspeed signals. Recently, some cases have been reported in which paired wheel brakes (inboard and/or outboard) did not operate during low speed taxiing. This appeared to be due to EMI on the DC Power grounds of the Anti-Skid Control Box. This EMI also resulted in the generation of inadvertent wheel speed signals. Investigation revealed that improvement of the Anti-Skid Control Box power return grounds gave a significant reduction of the susceptibility to EMI. Since a potentially unsafe condition has been identified that may still exist or develop on other aircraft of the same type design, this revised BLA retains the required modification of the grounding to the shielding of the Wheelspeed Sensor wiring and in addition, requires the installation of new electrical grounds for the Wheelspeed Sensor Channel of the Anti-Skid Control Box. RLD considers both modifications to be partial solutions to the problem and further rulemaking is likely to follow.

- Applicability: **Fokker Aircraft B.V.** Model F.28 Mk.0100 aircraft, serial numbers as listed in Fokker SB F100-32-067 Revision 1 and F100-32-037 Revision 1.

- Effective date: January 1, 1999

- Compliance: Required as indicated, unless accomplished previously.

- (a) Before March 1, 1999, modify the grounding to the Shielding of the Wheelspeed Sensor wiring in accordance with Part 1, 2, 3 or 4, as applicable, of the Accomplishment Instructions of Fokker SB F100-32-067 dated March 12, 1993, or Revision 1 dated July 6, 1998 or a later RLD-approved revision;
- (b) Before February 15, 2000, install new electrical grounding on the Wheelspeed Sensor Channel of the Anti-Skid Control Box in accordance with Part 1, 2, or 3, as applicable, of the Accomplishment Instructions of Fokker SB F100-32-037 Revision 1 dated November 16, 1998 or a later RLD-approved revision. **Note** : For operators that have already accomplished the original issue of this SB, dated November 12, 1990 on their aircraft, no further action is required.

BLA nr : 1998-100/2

Remarks:

- Operators of the affected aircraft may obtain copies of the referenced service information upon request directly from **Fokker Services B.V., Technical Services, P.O.Box 75047, 1117 ZN Schiphol Airport, The Netherlands; telephone (31) 20-605-2047; facsimile (31) 20-605-2000.**
- Compliance with this AD must be recorded in the proper Aircraft Log Book(s).
- This revision supersedes and cancels Airworthiness Directive (BLA) 1998-100 dated August 31, 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