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



# 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 : 1998-042/2 (A)

Date :

February 29, 2000

FOKKER SERVICES B.V.

(formerly Fokker Aircraft B.V.) Model F.28 Mk.0070, Mk.0100

RLD Type Certificate Nr.:

T-100-87

### AIRPLANE FLIGHT MANUAL - LIMITATIONS & NORMAL PROCEDURES - AMENDMENTS

#### Description:

- Recently another incident has been reported concerning an inflight liftdumper deployment that occurred with a Fokker Model F.28 Mk.0100. The pilot report indicated that the flight crew had ARMED the
- liftdumper system just after landing gear DOWN selection, whereupon the liftdumpers extended almost
- instantaneously. On-site verification tests confirmed this sequence of events. Arming the liftdumper system after the landing gear was verified to be DOWN and LOCKED would have prevented this problem.
- The investigation which precipitated the first issue of this directive revealed that inadvertent deployment is the result of a combination of
  - electro-magnetic interference (EMI) in the wheelspeed channels caused by a faulty Flight Control Computer (FCC);
  - voltage spikes in the wheelspeed channels during skid control box power-up on landing gear DOWN selection; and
    - liftdumper arming prior to landing gear DOWN selection.
- As a consequence the wheelspeed signal set to "high" by the EMI is not detected by the liftdumper arming test, as the skid control box, which is not powered at that time, does not transmit the EMI induced signal as a valid wheelspeed "high" signal.
- The first issue of this Airworthiness Directive (BLA) was issued to require a change to the Airplane Flight Manual (AFM), to include a warning NOT to arm the liftdumper system prior to landing gear DOWN
- selection. BLA 1998-100 (now at issue 2) was subsequently issued to require modification of the grounding to the shielding of the Wheelspeed Sensor wiring in accordance with Fokker Service Bulletin (SB)
- F100-32-067 and the installation of new electrical grounds for the Wheelspeed Sensor Channel of the
- Anti-Skid Control Box in accordance with Fokker SB F100-32-037 Revision 1. Most recently, RLD issued
- BLA 1999-127 to require replacement of the Anti-Skid system control box in accordance with Fokker SB F100-32-117. The incident aircraft, however, was in post SB F100-32-037, post SB F100-32-067 and
- pre SB F100-32-117 configuration.
- As the investigation continues, it cannot be excluded that additional modifications to the skid control box are required to prevent further incidents. After careful analysis of the available information, RLD considers
- that a potentially unsafe condition may still exist or develop on other aircraft of the same type design.
- Pending further investigation, this Airworthiness Directive (BLA) is revised to require an amendment of the
- AFM, to include a limitation and a warning NOT to arm the liftdumper system before the landing gear is
- DOWN and LOCKED.

Applicability: Fokker Aircraft B.V. Model F.28 Mk.0070 and Mk.0100 aircraft, all serial numbers.

Effective date: April 1, 2000

Compliance: Required as indicated, unless accomplished previously.

Before further flight after the effective date of this directive, amend the AFM in accordance with **Appendix I** of this directive. This may be accomplished by inserting a copy of this directive in the

- appropriate sections of the AFM.
- Note: Fokker 70/100 All Operator Message Nr. AOF100.071 and Manual Change Notification -
- Operational Documentation (MCNO) F100-011 Revision 1, both dated February 10, 2000, pertain to this subject.

BLA nr: 1998-042/2

#### APPENDIX I

Add the following to Section 1 - LIMITATIONS, sub-Section MISCELLANEOUS LIMITATIONS :

## **FLIGHT CONTROLS**

NORMAL OPERATION OF LIFTDUMPERS:

- Do **not** arm the liftdumper system before landing gear is down and locked.

Add the following to Section 5 - NORMAL PROCEDURES, sub-Section APPROACH AND LANDING, after the subject APPROACH :

#### **BEFORE LANDING**

WARNING: DO **NOT** ARM THE LIFTDUMPER SYSTEM BEFORE LANDING GEAR IS DOWN AND LOCKED.

#### 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 Airplane Flight Manual and Log Book(s).
- This revision supersedes and cancels Airworthiness Directive (BLA) 1998-042 dated April 10, 1998.

Address inquiries concerning this AD to:

Bureau Coordination & Technical Information (CTI); Telephone 31-(0)23-566 3155; Facsimile 31-(0)23-562 3848; Telex 74592 rldli nl E-mail "info.register@rld.minvenw.nl"