DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 96–NM–269–AD; Amendment 39–10310; AD 98–03–18]

RIN 2120–AA64

Airworthiness Directives; Fokker Model F28 Mark 0100 and 0070 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to all Fokker Model F28 Mark 0100 and 0070 series airplanes, that currently requires revising the Airplane Flight Manual (AFM) to include information that will enable the flightcrew to identify failures of the emergency direct current (DC)/alternating current (AC) bus power supply and to take appropriate corrective actions. The action also proposed to require revising the Abnormal and Normal Procedures Section of the AFM to inform the flightcrew that an “EMER DC BUS” warning on the multi-function display unit (MFDC) will occur when the DC bus transfer system, which currently requires revising the AFM revisions. In addition, the action proposed to require revising the existing AFM revisions. This amendment also requires a new AFM revision to inform the flightcrew that, under certain conditions, an “EMER DC BUS” warning on the multi-function display unit (MFDC) will occur, and to take appropriate corrective actions. This amendment is prompted by the issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by this AD are intended to prevent failures of the emergency DC/AC bus power supply, which could reduce the ability of the flightcrew to control the airplane.


The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register on behalf of the Department of Commerce (Federal Register as of March 23, 1998).

ADDRESSES: The service information referenced in this AD may be obtained from Fokker Services B.V., Technical Support Department, P. O. Box 75047, 1117 ZN Schiphol Airport, the Netherlands. This information may be examined by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 23, 1998.

The FAA agrees that cost impact of the required modification is more than the estimated $3,380 per airplane contained in the proposed rule. Since issuance of the Notice of Proposed Rulemaking (NPRM), Fokker has issued Service Bulletin SBF100–24–032, Revision 1, dated April 25, 1997, and Revision 2, dated July 28, 1997, to correct minor errors, and to revise the work hour estimates and part cost estimates for accomplishment of the modification. The estimate for accomplishment of Part 1 of the Accomplishment Instructions of the service bulletin has been changed.

Note 1: The subject of this AD is addressed in a foreign civil airworthiness directive 008–12–96.

(f) This amendment becomes effective on February 23, 1998.


Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
from 17 work hours to 22 work hours, and the estimate for accomplishment of Part 2 of the Accomplishment Instructions of the service bulletin has been changed from 5 work hours to 13 work hours. In addition, the estimate for parts costs has been changed from a range of $160 to $2,360, to a range of $160 to $2,580. The FAA has revised the cost impact information, below, accordingly.

The FAA has determined that accomplishment of the modification in accordance with the original issue, Revision 1, or Revision 2 of Fokker Service Bulletin SBF100–24–032 adequately addresses the identified unsafe condition. Therefore, this AD has been revised to include Fokker Service Bulletin SBF100–24–032, Revision 1, dated April 25, 1997, and Revision 2, dated July 28, 1997, as additional sources of service information.

Request To Extend Compliance Time for Modification

The Air Transport Association (ATA) of America, on behalf of one of its members, requests that the compliance time for accomplishing the modification be extended from the proposed 12 months to 18 months. The commenter states that if it is forced to meet the proposed 12-month compliance schedule, approximately 20 of the 40 affected airplanes in its fleet would require modification in a line environment or during unscheduled heavy maintenance visits. The commenter noted that this would result in significant additional costs. In addition, the commenter states that the modification would be difficult to accomplish during routine overnight line station maintenance due to the complexity of the task and accessibility. The commenter also noted that the elapsed time to accomplish the modification will be twice the service bulletin estimate of 8 hours, since only one person at a time could work on this modification. The commenter further noted that only three diode failures have been experienced on its affected fleet of airplanes since operation commenced in 1989. The commenter considers that this relatively low failure rate also supports its request for an extension of the compliance time.

The FAA does not concur with the commenter’s request to extend the compliance time. In developing an appropriate compliance time for this action, the FAA considered not only the degree of urgency associated with addressing the subject unsafe condition, but the manufacturer’s and foreign airworthiness authority’s recommendations as to an appropriate compliance time, the availability of required parts, and the practical aspect of installing the required modification within an interval of time that parallels the normal scheduled maintenance for the majority of affected operators. The FAA has determined that the compliance time, as proposed, represents the maximum interval of time allowable for the affected airplanes to continue to operate prior to accomplishing the required modification without compromising safety. The commenter has not provided data to substantiate why an extension of the compliance time would not compromise safety. The failure rate data of a single operator does not substantiate why an extension of the compliance time would not compromise safety.

In consideration of all of these factors, and in consideration of the amount of time that has already elapsed since issuance of the original NPRM, the FAA has determined that further delay of this modification is not appropriate. However, under the provisions of paragraph (g) of the final rule, the FAA may approve requests for adjustments to the compliance time if data are submitted to substantiate that such an adjustment would provide an acceptable level of safety.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither significantly increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 132 Fokker Model F28 Mark 0100 and 0070 series airplanes of U.S. registry that will be affected by this AD. The actions that are currently required by AD 95–21–10 take approximately 1 work hour per airplane to accomplish, at an average labor rate of $60 per work hour. Based on these figures, the cost impact of the previously required actions on U.S. operators is estimated to be $7,920, or $60 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have significant federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:
PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39–9396 (60 FR 53110, October 12, 1995), and by adding a new airworthiness directive (AD), amendment 39–10310, to read as follows:

98–03–18 Fokker: Docket 96–NM–269–AD.

Supersedes AD 95–21–10, Amendment 39–9396.

Applicability: All Model F28 Mark 0100 and 0070 series airplanes, certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (g) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent failures of the emergency direct current (DC) or alternating current (AC) bus power supply, which could reduce the ability of the flightcrew to control the airplane, accomplish the following:

Restatement of Actions Required by AD 95–21–10, Amendment 39–9396

Note 2: For Model F28 Mark 0070 series airplanes, on which the procedures specified in Fokker Service Bulletins SBF 100–24–033 and SBF 100–24–034 have been accomplished, the AFM revisions required by paragraphs (a), (b), and (c) of this AD may be removed from the AFM.

Note 3: For Model F28 Mark 0100 series airplanes, on which the procedures specified in Fokker Service Bulletin SBF 100–24–033 and SBF 100–24–034 have not been accomplished, or on which the procedures specified in Fokker Service Bulletin SBF 100–24–033 have been accomplished; the AFM revisions required by paragraph (a), (b), and (c) of this AD may be removed from the AFM.

(a) For all airplanes: Within 7 days after October 27, 1995 (the effective date of AD 95–21–10, amendment 39–9396), revise the Abnormal Procedures Section of the FAA-approved AFM to include the following statement. This may be accomplished by inserting a copy of this AD in the AFM.

“Section 4—Abnormal Procedures

Add to Sub-section 4.04—Electrical Power

STANDBY ANNUNCIATOR PANEL RED AC SUPPLY LIGHT ‘ON’

On overhead electrical panel:

GEN LOAD............................CHECK

If all generator loads are approximately zero:

• LOSS OF AC SUPPLY

PROCEDURE..........................APPLY

If not all generator loads are approximately zero:

• DC EMER BUS SUPPLY TRU3

CIRCUIT BREAKER..................CHECK

If circuit breaker has tripped:

• DC EMER BUS SUPPLY TRU3

CIRCUIT BREAKER..................RESET

If reset is unsuccessful:

L and R AUDIO........................ALTN

Anticipate the effects of an eventual EMER DC BUS failure, see EMER DC BUS FAULT procedure.

If circuit breaker has not tripped:

L and R AUDIO........................ALTN

Anticipate the effects of an eventual EMER DC BUS failure, see EMER DC BUS FAULT procedure.”

(b) For all airplanes: Within 7 days after October 27, 1995, revise the Normal Procedures Section of the FAA-approved AFM to include the following statement. This may be accomplished by inserting a copy of this AD in the AFM.

“Section 5—Normal Procedures

Insert in front of Sub-section 5.01.01—Take-off:

• After engine start, select the Standby Annunciator Panel (SAP) backup mode ON via the BACKUP p/b at the SAP.

• Keep the SAP in the backup mode for the whole duration of flight until engine shutdown.

• Monitor the SAP.

Note: Failure conditions as presented on the SAP bypass the Flight Warning Computer (FWC) are not subject to alert inhibition. Be aware that the red LG light on the SAP will illuminate in case one or both thrustlever(s) are below the minimum take-off position and the landing gear is not down.”

(c) For all Model F28 Mark 0070 series airplanes, and Model F28 Mark 0100 series airplanes, in pre-SBF 100–24–009 configuration or in post SBF 100–24–030 configuration: Within 7 days after October 27, 1995, revise the Abnormal Procedures Section of the FAA-approved AFM to include the following statement. This may be accomplished by inserting a copy of this AD in the AFM.

“Section 4—Abnormal Procedures

Add to Sub-section 4.04—Electrical Power

ERRATIC ELECTRICAL SYSTEM BEHAVIOR

In case of continuous rattling sound, caused by the fast switching of relays and accompanied by shanking or erratic behavior of the three displays on the electric panel:

• BATTERIES...SELECT MOMENTARILY OFF,

• THEN ON AFFECTED SYSTEMS......RESTORE IF REQD

If the red AC SUPPLY light on the SAP comes ON:

SAP RED AC SUPPLY LIGHT ‘ON’

PROCEDURE..................................APPLY”

New Actions Required by This AD

(d) For Model F28 Mark 0070 and 0100 series airplanes, as listed in Fokker Service Bulletin SBF 100–24–032, dated September 12, 1996, or Revision 1, dated April 25, 1997, or Revision 2, dated July 28, 1997: Within 12 months after the effective date of this AD, modify the DC bus transfer system in accordance with Fokker Service Bulletin SBF 100–24–032, dated September 12, 1996; or Revision 1, dated April 25, 1997; or Revision 2, dated July 28, 1997. Prior to further flight following accomplishment of this modification, accomplish paragraph (e) of this AD.


(e) Revise the Abnormal Procedures Section of the FAA-approved AFM to include the following statement. This may be accomplished by inserting a copy of this AD in the AFM.

“Section 4—Abnormal Procedures

Sub-section 4.04.05—Electrical Power—Bus Equipment List.

Insert a marker □ in each Bus Equipment List table, at the top of the column marked: EMERGENCY—DC.

Add the following note at the beginning of the affected sub-section:

Note: When an “EMER DC BUS” fault is presented on the multi-function display unit (MFDU), check whether the electric panel digital readouts are operative.

• If operative, the EMER DC bus is supplied from the battery chargers via the batteries for 90 minutes and all services connected to this bus will remain available. After this time period, batteries will start to discharge and the effects of an EMER DC BUS fault should then be expected.

• If inoperative, continue with the EMER DC BUS FAULT procedure.

At the bottom of each succeeding page (Bus Equipment List table) of sub-section 4.04.05, make a clear reference to the note marked □ located at the beginning of sub-section 4.04.05.”

(f) Accomplishment of the modification in accordance with paragraph (d) of this AD constitutes terminating action for the requirements of paragraphs (a), (b), and (c) of this AD. After the modification has been accomplished, the previously required AFM revision may be removed from the AFM.

(g) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM–116, FAA.
Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM--116.

**Notes:**

5. Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM--116.

(h) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(i) The actions shall be done in accordance with the following Fokker service bulletins, which contain the specified effective pages:

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This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Fokker Services B.V., Technical Support Department, P.O. Box 75047, 1117 ZN Schiphol Airport, the Netherlands. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**Note:** The subject of this AD is addressed in Dutch airworthiness directive BLA 1995-02, dated September 30, 1996.

(j) This amendment becomes effective on March 23, 1998.


Stewart R. Miller,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

FOR FURTHER INFORMATION CONTACT: Mr. Shep Blackman, Aerospace Engineer, Rotorcraft Standards Staff, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97--SW--23--AD; Amendment 39--10313; AD 97--15--15]

RIN 2120--AA64

Airworthiness Directives; Eurocopter France Model SA--365N, SA--365N1, and SA--366G1 Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This document publishes in the Federal Register an amendment adopting Airworthiness Directive (AD) 97--15--15, which was sent previously to all known U.S. owners and operators of Eurocopter France Model SA--365N, SA--365N1, and SA--366G1 helicopters by individual letters. This AD requires an inspection of the main gearbox magnetic plug (magnetic plug) and the main gearbox oil filter (oil filter) for ferrous chips; vibration measurements, if necessary; and replacement of the main gearbox if a specified quantity of ferrous chips are discovered, or if abnormal vibrations are identified at a certain frequency. This amendment is prompted by two recent reports of cracks found in planetary gear shafts (gear shafts) in main gearboxes that have not been modified in accordance with MOD 077244. The actions specified by this AD are intended to detect cracks in the gear shaft which could lead to failure of the gear shaft, failure of the transmission, and subsequent loss of control of the helicopter.

DATES: Effective February 23, 1998, to all persons except those persons to whom it was made immediately effective by priority letter AD 97--15--15, issued on July 18, 1997, which contained the requirements of this amendment.

Comments for inclusion in the Rules Docket must be received on or before April 7, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 97--SW--23--AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Mr. Shep Blackman, Aerospace Engineer, Rotorcraft Standards Staff, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222--5296, fax (817) 222--5961.

SUPPLEMENTAL INFORMATION: On July 10, 1997, the FAA issued priority letter AD 97--15--15, applicable to Eurocopter France Model SA--365N, SA--365N1, and SA--366G1 helicopters, which requires an inspection of the magnetic plug and the oil filter for ferrous chips; vibration measurements, if necessary; and replacement of the main gearbox if a specified quantity of ferrous chips are discovered, or if abnormal vibrations are identified at a certain frequency.

That action was prompted by two recent reports of cracks found in gear shafts in main gearboxes, part number (P/N) 365A32--6000--00, 365A32--6000--02, 365A32--6001--00, or 366A32--0001--00, that have not been modified in accordance with MOD 077244. Upon inspection, the manufacturer discovered that 13 main gearbox epicyclic modules were assembled at the factory with mismatched planetary gear tooth to ring gear radii. This produces higher than normal gear tooth loading stresses which substantially reduce the fatigue life of the gear shaft. This condition, if not corrected, could result in cracks in the gear shaft; failure of the transmission, and subsequent loss of control of the helicopter.

Eurocopter France has issued Telex Service No. 0035/00188/97, dated July 7, 1997, and Telex Service No. 00037/00190/97, dated July 9, 1997, which specify checks of the oil filter after the last flight of each day for cracks; and also specify performing vibration measurements if metal chips are found on the magnetic plug or in the oil filter, or if abnormal vibrations are reported by the crew. The DGAC classified these service telexes as mandatory, and issued AD 97--145--042(AB), dated July 10, 1997, and AD 97--164--020(AB), dated July 16, 1997.

These helicopter models are manufactured in France and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Pursuant to this bilateral airworthiness agreement, the Direction of