

provide borrowers with a degree of financial certainty.

The rule will allow RUS to process applications for loans with a loan period of more than 2 years in two parts during a fiscal year when applications substantially exceed available funds. RUS will notify all electric borrowers in writing before invoking these procedures.

RUS recognizes that the success of the electric program in maintaining high quality electric service at reasonable rates in rural areas depends on the ability of electric borrowers to maintain and improve their electric systems. The temporary procedures in this rule will assist borrowers in the essential task of planning and managing their cash flows.

Concurrent with the publication of this rule, RUS is issuing Bulletin 1710C-1, Temporary Processing Procedures for Insured Electric Loans, a compliance guide to assist borrowers, supplemental lenders, and other interested parties. RUS is mailing the rule and the bulletin to all electric borrowers and to supplemental lenders. RUS believes that the procedures in the bulletin will allow all borrowers to share the limited loan appropriations on a fair and equitable basis.

Because of: (1) The exceptionally large backlog of applications for municipal rate and hardship rate loans, and (2) The urgent need for processing procedures that will allow RUS to advance loan funds during the spring construction season, RUS is putting these procedures into effect immediately for FY 1997. RUS requests comments and suggestions, especially on alternate methods of allocating the limited amount of loan funds.

List of Subjects in 7 CFR Part 1710

Electric power, Electric utilities, Loan programs—energy, Reporting and recordkeeping requirements, Rural areas.

For the reasons set out in the preamble, and under the authority of 7 U.S.C. 901 *et seq.*, RUS amends 7 CFR Part 1710 as follows:

PART 1710—GENERAL AND PRE-LOAN POLICIES AND PROCEDURES COMMON TO INSURED AND GUARANTEED ELECTRIC LOANS

1. The authority citation for part 1710 continues to read as follows:

Authority: 7 U.S.C. 901-950(b); Pub. L. 99-591, 100 Stat. 3341; Pub. L. 103-354, 108 Stat. 3178 (7 U.S.C. 6941 *et seq.*).

2. Section 1710.106 is amended by revising paragraph (e) to read as follows:

§ 1710.106 Uses of loan funds.

* * * * *

(e)(1) If, in the sole discretion of the Administrator, the amount authorized for lending for municipal rate loans, hardship rate loans, and loan guarantees in a fiscal year is substantially less than the total amount eligible for RUS financing, RUS may limit the size of all loans of that type approved during the fiscal year. Depending on the amount of the shortfall between the amount authorized for lending and the loan application inventory on hand for each type of loan, RUS may either reduce the amount on an equal proportion basis for all applicants for that type of loan based on the amount of funds for which the applicant is eligible, or may shorten the loan period for which funding will be approved to less than the maximum of 4 years. All applications for the same type of loan approved during a fiscal year will be treated in the same manner, except that RUS will not limit funding to any borrower requesting an RUS loan or loan guarantee of \$1 million or less.

(2) If RUS limits the amount of loan funds approved for borrowers, the Administrator shall notify all electric borrowers early in the fiscal year of the manner in which funding will be limited. The portion of the loan application that is not funded during that fiscal year may, at the borrower's option, be treated as a second loan application received by RUS at a later date. This date will be determined by RUS in the same manner for all affected loans and will be based on the availability of loan funds. The second loan application shall be considered complete except that the borrower must submit a certification from a duly authorized corporate official stating that funds are still needed for loan purposes specified in the original application and must notify RUS of any changes in its circumstances that materially affects the information contained in the original loan application or the primary support documents. See 7 CFR 1710.401(f).

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Dated: February 13, 1997.
 Jill Long Thompson,
Under Secretary, Rural Development.
 [FR Doc. 97-4334 Filed 2-20-97; 8:45 am]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. 139CE, Special Condition 23-ACE-90]

Special Conditions; Beechcraft Model E90 Airplane

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued to East Coast Aerospace Engineering, 2601 N. Flagler Dr., W. Palm Beach, FL 33407 for a Supplemental Type Certificate (STC) on Beechcraft Model E90 airplane. This airplane will have novel and unusual design features when compared to the state of technology envisaged in the applicable airworthiness standards. These novel and unusual design features include the installation of electronic displays for which the applicable regulations do not contain adequate or appropriate airworthiness standards for the protection of these systems from the effects of high intensity radiated fields (HIRF). These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to the airworthiness standards applicable to these airplanes.

DATES: The effective date of these special conditions is on publication in the Federal Register. Comments must be received on or before March 24, 1997.

ADDRESSES: Comments may be mailed in duplicate to: Federal Aviation Administration, Office of the Assistant Chief Counsel, ACE-7, Attention: Rules Docket Clerk, Docket No. 139CE, Room 1558, 601 East 12th Street, Kansas City, Missouri 64106. All comments must be marked: Docket No. 139CE. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4:00 p.m.

FOR FURTHER INFORMATION CONTACT: Ervin Dvorak, Aerospace Engineer, Standards Office (ACE-110), Small Airplane Directorate, Aircraft Certification Service, Federal Aviation Administration, 601 East 12th Street, Kansas City, Missouri 64106; telephone (816) 426-6941.

SUPPLEMENTARY INFORMATION:

Comments Invited

Although this action is in the form of a final rule that involves requirements

affecting flight safety, and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on these special conditions.

Interested persons are invited to submit such written data, views, or arguments as they may desire. Communications should identify the regulatory docket and special conditions number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments will be considered by the Administrator. These special conditions may be changed in light of the comments received. All comments submitted will be available in the rules docket for examination by interested parties, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Persons wishing the FAA to acknowledge receipt of their comments, submitted in response to this request, must include a self-addressed and stamped postcard on which the following statement is made: "Comments to Docket No. 139CE." The postcard will be date stamped and returned to the commenter.

Background

On January 2, 1997, East Coast Aerospace Engineering, 2601 N. Flagler Dr., W. Palm Beach, FL 33407 made an application to the FAA for a Supplemental Type Certificate (STC) for the Beechcraft Model E90 airplane. The proposed modification incorporates a novel or unusual design feature, such as digital avionics consisting of an electronic flight instrument system (EFIS), that is vulnerable to HIRF external to the airplane.

Type Certification Basis

The type certification basis for the Beechcraft Model E90 Airplane is given in Type Certification Data Sheet No. 3A20 plus the following: § 23.954 and § 23.959 of Amendment 23-7 to FAR 23 dated February 1, 1965; § 23.1111 of Amendment 23-7 to FAR 23; § 23.1385(c), § 23.1387(a), § 23.1387(e) of Amendment 23-12 to FAR 23 and § 23.1301 of Amendment 23-20; §§ 23.1309, and 23.1321 of Amendment 23-41; § 23.1311 of Amendment 23-49, and § 23.1322 of Amendment 23-43; to FAR 23 and Special Conditions outlined by FAA letters to Beech dated January 21, February 15, and February 27, 1963, and May 5, 1965, and November 8, 1961, and FAA Exemption No. 1554 issued March 31, 1972, from CAR 3.115(a) for Model E90; exemptions, if

any; and the special conditions adopted by this rulemaking action.

Discussion

The FAA may issue and amend special conditions, as necessary, as part of the type certification basis if the Administrator finds that the airworthiness standards, designated according to § 21.101(b), do not contain adequate or appropriate safety standards because of novel or unusual design features of an airplane. Special conditions are prescribed under the provisions of § 21.16 to establish a level of safety equivalent to that established in the regulations. Special conditions are normally issued according to § 11.49, after public notice, as required by §§ 11.28 and 11.29(b), effective October 14, 1980, and become a part of the type certification basis in accordance with § 21.101(b)(2)

East Coast Aerospace Engineering plans to incorporate certain novel and unusual design features into an airplane for which the airworthiness standards do not contain adequate or appropriate safety standards for protection from the effects of HIRF. These features include electronic systems, which are susceptible to the HIRF environment, that were not envisaged by the existing regulations for this type of airplane.

Protection of Systems from High Intensity Radiated Fields (HIRF): Recent advances in technology have given rise to the application in aircraft designs of advanced electrical and electronic systems that perform functions required for continued safe flight and landing. Due to the use of sensitive solid state advanced components in analog and digital electronics circuits, these advanced systems are readily responsive to the transient effects of induced electrical current and voltage caused by the HIRF. The HIRF can degrade electronic systems performance by damaging components or upsetting system functions.

Furthermore, the HIRF environment has undergone a transformation that was not foreseen when the current requirements were developed. Higher energy levels are radiated from transmitters that are used for radar, radio, and television. Also, the number of transmitters has increased significantly. There is also uncertainty concerning the effectiveness of airframe shielding for HIRF. Furthermore, coupling to cockpit-installed equipment through the cockpit window apertures is undefined.

The combined effect of the technological advances in airplane design and the changing environment has resulted in an increased level of

vulnerability of electrical and electronic systems required for the continued safe flight and landing of the airplane.

Effective measures against the effects of exposure to HIRF must be provided by the design and installation of these systems. The accepted maximum energy levels in which civilian airplane system installations must be capable of operating safely are based on surveys and analysis of existing radio frequency emitters. These special conditions require that the airplane be evaluated under these energy levels for the protection of the electronic system and its associated wiring harness. These external threat levels, which are lower than previous required values, are believed to represent the worst case to which an airplane would be exposed in the operating environment.

These special conditions require qualification of systems that perform critical functions, as installed in aircraft, to the defined HIRF environment in paragraph 1 or, as an option to a fixed value using laboratory tests, in paragraph 2, as follows:

(1) The applicant may demonstrate that the operation and operational capability of the installed electrical and electronic systems that perform critical functions are not adversely affected when the aircraft is exposed to the HIRF environment defined below:

FIELD STRENGTH VOLTS/METER

Frequency	Peak	Average
10-100 KHz	50	50
100-500	60	60
500-2000	70	70
2-30 MHz	200	200
30-70	30	30
70-100	30	30
100-200	150	33
200-400	70	70
400-700	4020	935
700-1000	1700	170
1-2 GHz	5000	990
2-4	6680	840
4-6	6850	310
6-8	3600	670
8-12	3500	1270
12-18	3500	360
18-40	2100	750

or,

(2) The applicant may demonstrate by a system test and analysis that the electrical and electronic systems that perform critical functions can withstand a minimum threat of 100 volts per meter, peak electrical field strength, from 10 KHz to 18 GHz. When using this test to show compliance with the HIRF requirements, no credit is given for signal attenuation due to installation.

A preliminary hazard analysis must be performed by the applicant, for approval by the FAA, to identify electrical and/or electronic systems that perform critical functions. The term "critical" means those functions whose failure would contribute to, or cause, a failure condition that would prevent the continued safe flight and landing of the airplane. The systems identified by the hazard analysis that perform critical functions are candidates for the application of HIRF requirements. A system may perform both critical and non-critical functions. Primary electronic flight display systems, and their associated components, perform critical functions such as attitude, altitude, and airspeed indication. The HIRF requirements apply only to critical functions.

Compliance with HIRF requirements may be demonstrated by tests, analysis, models, similarity with existing systems, or any combination of these. Service experience alone is not acceptable since normal flight operations may not include an exposure to the HIRF environment. Reliance on a system with similar design features for redundancy as a means of protection against the effects of external HIRF is generally insufficient since all elements of a redundant system are likely to be exposed to the fields concurrently.

Conclusion

In view of the design features discussed for the Beechcraft Model E90 Airplane, the following special conditions are issued. This action is not a rule of general applicability and affects only those applicants who apply to the FAA for approval of these features on these airplanes.

The substance of these special conditions has been subject to the notice and public comment procedure in several prior rulemaking actions. For example, the Dornier 228-200 (53 FR 14782, April 26, 1988), the Cessna Model 525 (56 FR 49396, September 30, 1991), and the Beech Model 200, A200, and B200 airplanes (57 FR 1220, January 13, 1992). It is unlikely that additional public comment would result in any significant change from those special conditions already issued and commented on. For these reasons, and because a delay would significantly affect the applicant's installation of the system and certification of the airplane, which is imminent, the FAA has determined that prior public notice and comment are unnecessary and impracticable, and good cause exists for adopting these special conditions without notice. Therefore, these special conditions are being made effective

upon publication in the Federal Register. However, as previously indicated, interested persons are invited to comment on these special conditions if they so desire.

List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

Citation

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g); 40113, 44701, 44702, and 44704; 14 CFR 21.16 and 21.101; and 14 CFR 11.28 and 11.49

Adoption of Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for the modified Beechcraft Model E90 airplane:

1. *Protection of Electrical and Electronic Systems from High Intensity Radiated Fields (HIRF)*. Each system that performs critical functions must be designed and installed to ensure that the operations, and operational capabilities of these systems to perform critical functions, are not adversely affected when the airplane is exposed to high intensity radiated electromagnetic fields external to the airplane.

2. For the purpose of these special conditions, the following definition applies: *Critical Functions*: Functions whose failure would contribute to, or cause, a failure condition that would prevent the continued safe flight and landing of the airplane.

Issued in Kansas City, Missouri on February 7, 1997.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 97-4354 Filed 2-20-97; 8:45 am]

BILLING CODE 4910-13-P

14 CFR Part 39

[Docket No. 96-NM-32-AD; Amendment 39-9932; AD 97-04-08]

RIN 2120-AA64

Airworthiness Directives; Fokker Model F27 Mark 050, 100, 200, 300, 400, 600, and 700 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Fokker Model F27 Mark 050, 100, 200, 300, 400, 600, and

700 series airplanes, that requires an ultrasonic inspection to determine if certain tubes are installed in the drag stay units of the main landing gear (MLG), and various follow-on actions. This amendment is prompted by a report that, due to fatigue cracking from an improperly machined radius of the inner tube, a drag stay broke, and, consequently, lead to the collapse of the MLG during landing. The actions specified by this AD are intended to prevent such fatigue cracking, which could result in reduced structural integrity or collapse of the MLG.

DATES: Effective March 28, 1997.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 28, 1997.

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 at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Ruth Harder, Aerospace Engineer, Standardization Branch, ANM-113, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (206) 227-1721; fax (206) 227-1149.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Fokker Model F27 Mark 050, 100, 200, 300, 400, 600, and 700 series airplanes was published in the Federal Register on October 31, 1996 (61 FR 56170). That action proposed to require an ultrasonic inspection to determine if certain tubes are installed on the DSUs of the MLG, and various follow-on actions.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

Conclusion

The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.