

of meetings to hold each year to carry out its oversight responsibilities. The Finance Board further expects that notwithstanding the proposed reduction of the minimum number of meetings to be held each year, the OF board will continue to maintain its level of oversight of the OF and its operations, and observe all appropriate safety and soundness guidelines.

III. Regulatory Flexibility Act

The final rule would apply only to the OF, which does not come within the meaning of small entities as defined in the Regulatory Flexibility Act (RFA). See 5 U.S.C. 601(6). Therefore, in accordance with section 605(b) of the RFA, 5 U.S.C. 605(b), the Finance Board hereby certifies that this rule, when it becomes final, will not have significant economic impact on a substantial number of small entities under the RFA.

Paperwork Reduction Act

This final rule does not contain any collections of information pursuant to the Paperwork Reduction Act of 1995. See 33 U.S.C. 3501 *et seq.* Therefore, the Finance Board has not submitted any information to the Office of Management and Budget for review.

List of Subjects in 12 CFR Part 985

Federal Home Loan Banks.

Accordingly, the Finance Board hereby amends part 985, title 12, chapter IX, Code of Federal Regulations, as follows:

PART 985—THE OFFICE OF FINANCE

1. The authority citation for part 985 continues to read as follows:

Authority: 12 U.S.C. 1422b(a)(1).

2. Revise § 985.8(b) to read as follows:

§ 985.8 General duties of the OF board of directors.

* * * * *

(b) *Meetings and quorum.* The OF board of directors shall conduct its business by majority vote of its members at meetings convened in accordance with its bylaws, and shall hold no fewer than six in-person meetings annually. Due notice shall be given to the Finance Board by the Chair prior to each meeting. A quorum, for purposes of meetings of the OF board of directors, shall be not less than two members.

* * * * *

Dated: April 10, 2002.

By the Board of Directors of the Federal Housing Finance Board.

John T. Korsmo,
Chairman.

[FR Doc. 02-9328 Filed 4-16-02; 8:45 am]

BILLING CODE 6725-01-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. CE181, Special Condition 23-115-SC]

Special Conditions; Raytheon Aircraft Models 200 and 300; Protection of Systems for High Intensity Radiated Fields (HIRF)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued to Elliott Aviation, Inc., Quad City Airport, P.O. Box 100, Moline, Illinois 61266, for a Supplemental Type Certificate for the Raytheon Aircraft Model 200, B200, 200C, B200C, 200CT, B200CT, B200T, 300, 300LW, B300 and B300C. 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 flight instrument system (EFIS) displays manufactured by Universal Avionics Corporation 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 April 2, 2002. Comments must be received on or before May 17, 2002.

ADDRESSES: Comments may be mailed in duplicate to: Federal Aviation Administration, Regional Counsel, ACE-7, Attention: Rules Docket Clerk, Docket No. CE181, Room 506, 901 Locust, Kansas City, Missouri 64106. All comments must be marked: Docket No. CE181. 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, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone (816) 329-4123.

SUPPLEMENTARY INFORMATION: The FAA has determined that notice and opportunity for prior public comment hereon are impracticable because these procedures would significantly delay issuance of the approval design and thus delivery of the affected aircraft. In addition, the substance of these special conditions has been subject to the public comment process in several prior instances with no substantive comments received. The FAA, therefore, finds that good cause exists for making these special conditions effective upon issuance.

Comments Invited

Interested persons are invited to submit such written data, views, or arguments as they may desire. Communications should identify the regulatory docket or notice 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. The special conditions may be changed in light of the comments received. All comments received will be available in the Rules Docket for examination by interested persons, 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. Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must include a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. CE181." The postcard will be date stamped and returned to the commenter.

Background

On December 28, 2001, Elliott Aviation, Inc., Quad City Airport, P.O. Box 100, Moline, Illinois 61266, made an application to the FAA for a new Supplemental Type Certificate for the Raytheon Aircraft Model 200, B200, 200C, B200C, 200CT, B200CT, B200T, 300, 300LW, B300, and B300C. The aircraft is currently approved under TC No. A24CE, revision 78. The proposed modification incorporates a novel or unusual design feature, such as digital avionics consisting of an EFIS, that is

vulnerable to HIRF external to the airplane.

Type Certification Basis

Under the provisions of 14 CFR part 21, § 21.101, Elliott Aviation, Inc. must show that the Raytheon 200 and 300 series aircraft meet the following provisions, or the applicable regulations in effect on the date of application for the change to the Model 200 and 300.

Model 200 Series: 14 CFR part 23 effective February 1, 1965, as amended by 23–1 through 23–9, Amendment 23–11, 14 CFR part 23, § 23.175, and associated part 23 §§ 23.143(a), 23.145(d), 23.153, 23.161(c)(3), and 23.173(a) as amended by Amendment 23–14; § 23.951(c) and § 23.997(d) as amended by Amendment 23–15 (A200CT and B200 series only); § 23.1545(a) as amended by Amendment 23–23, and § 23.1325(e) as amended by Amendment 23–20 (B200 Series only); § 23.1305(n) as amended by Amendment 23–26; FAA Special Conditions 23–47–CE–5 issued October 30, 1972, Amendment 1 dated December 18, 1973, and Amendment 2 dated January 12, 1979; 14 CFR part 25, §§ 25.929 and 25.1419 as amended to December 31, 1972, and § 25.831(d) through Amendment 25–41 (for all Model 200 and B200 series aircraft approved for 35,000 feet); SFAR 27 through Amendment 27–4; and 14 CFR part 36 through Amendment 36–10. For B200 through Serial Number BB–1438 and B200C through Serial Number BL–138, part 36 through amendment 36–10. For B200 Serial Numbers BB–1439, BB–1444 and after, B200C Serial Numbers BL–139 and after, A200CT Serial Numbers FE–25 and after, part 36 through Amendment 36–20. Compliance with ice protection has been demonstrated in accordance with § 25.1419 when ice protection equipment is installed in accordance with the airplane equipment list. Effective April 20, 1993, Electronic Flight Instrument Systems shall meet the requirements of §§ 23.1301, 23.1309, 23.1311, 23.1321, 23.1322, and 23.1335 as amended through Amendment 23–41 and Special Condition 23–ACW–68. Effective January 20, 1994, § 23.1457 as amended by Amendment 23–35. In addition, part 135 Appendix A, effective December 1, 1978 (B200 High Density Configuration). Equivalent Safety Findings: § 23.621 (BB–2 through BB–1042 only); § 23.997(d) (all models except A200CT and B200 series); § 23.1443 through Amendment 23–9–200 (BB–38, BB–39, BB–42, BB–44, BB–54 and after), 200C, 200CT, 200T, plus any earlier Model 200 modified by Beechcraft kits 101–5007 and 101–5008

in compliance with Beech Service instruction No. 0776–341. Model UC–12F (BU–1 through BU–12). Not Applicable to B200 Series. Special conditions adopted by this rulemaking action.

Model 300 and 300LW: Special Federal Aviation Regulation (SFAR) 41C, effective September 13, 1982 (300 only); 14 CFR part 23 effective February 1, 1965, through Amendment 23–9; Amendment 23–11; Amendment 23–14, §§ 23.143(a), 23.145(d), 23.153, 23.161(c)(3), 23.173(a), 23.175, 23.427, 23.441, and 23.445; Amendment 23–15, § 23.951(c) and § 23.997(d); §§ 23.1301, 23.1309, 23.1311, 23.1321, and 23.1322 to Amendment 23–49; Amendment 23–23, § 23.1545(a); Amendment 23–26, §§ 23.967 and 23.1305(n); Special Conditions No. 23–47–CE–5, including Amendments Nos. 1, 2, 3 dated November 15, 1982, and 4 dated October 17, 1986; 14 CFR part 25, § 25.929, effective February 1, 1965, Amendment 25–23, § 25.1419; Amendment 25–41, § 25.831(d); 14 CFR part 36 through Amendment 36–10, and SFAR 27 through Amendment 27–4. Compliance with ice protection has been demonstrated in accordance with part 25, § 25.1419 when ice protection equipment is installed in accordance with the Equipment List. Special conditions adopted by this rulemaking action.

Model B300 and B300C: 14 CFR part 23 effective February 1, 1965, as amended by Amendments 23–1 through 23–34; 14 CFR part 36 effective December 1, 1969, as amended by Amendment 36–1 through 36–15; SFAR 27 effective February 1, 1974, as amended by Amendments 27–1 through 27–6 and Exemption No. 5077 from compliance with section 23.207(c). Special Conditions 23–ACE–48A effective August 13, 1990, apply to Electronic Flight Instrument System (EFIS) equipped airplanes. Part 23, §§ 23.201, 23.203, 23.205 through amendment 23–45 (S/N FN–1 and up only). Effective January 20, 1994, § 23.1457 as amended by Amendment 23.35. Sections 23.1301, 23.1309, 23.1311, 23.1321, and 23.1322 to Amendment 23–49. Exemption 5599 from compliance with § 23.53(c)(1), for use of ground minimum control speed (V_{mcg}) for determination of takeoff decision speed (V_1), (serials FL–111, FM–9, FN–2 and after, or prior airplanes modified by Beech Kit No. 130–3004). Compliance with ice protection has been demonstrated in accordance with the Equipment List. Equivalent Level of Safety Findings: § 23.781(b) for shape of the propeller control knob; § 23.1305(g) for use of fuel low pressure warning

annunciators in lieu of the fuel pressure indicators; § 23.1321(d) for the basic “T” instrument panel arrangement. Special conditions adopted by this rulemaking action.

Discussion

If the Administrator finds that the applicable airworthiness standards 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.

Special conditions, as appropriate, as defined in § 11.19, are issued in accordance with § 11.38 after public notice and become part of the type certification basis in accordance with § 21.101.

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model already included on the same type certificate to incorporate the same novel or unusual design feature, the special conditions would also apply to the other model under the provisions of § 21.101.

Novel or Unusual Design Features

Elliott Aviation, Inc. 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 EFIS, 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:

Frequency	Field strength (volts per meter)	
	Peak	Average
10 kHz–100 kHz	50	50
100 kHz–500 kHz	50	50
500 kHz–2 MHz	50	50
2 MHz–30 MHz	100	100
30 MHz–70 MHz	50	50
70 MHz–100 MHz	50	50
100 MHz–200 MHz	100	100
200 MHz–400 MHz	100	100
400 MHz–700 MHz	700	50
700 MHz–1 GHz	700	100
1 GHz–2 GHz	2000	200
2 GHz–4 GHz	3000	200
4 GHz–6 GHz	3000	200
6 GHz–8 GHz	1000	200
8 GHz–12 GHz	3000	300
12 GHz–18 GHz	2000	200
18 GHz–40 GHz	600	200

The field strengths are expressed in terms of peak root-mean-square (rms) values.

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 either electrical 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.

Applicability

As discussed above, these special conditions are applicable to Raytheon Aircraft models 200, B200, 200C, B200C, 200CT, B200CT, B200T, 300, 300LW, B300, B300C. Should Elliott Aviation, Inc. apply at a later date for a supplemental type certificate to modify any other model on the same type certificate to incorporate the same novel or unusual design feature, the special conditions would apply to that model as well under the provisions of § 21.101.

Conclusion

This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the airplane.

The substance of these special conditions has been subjected to the notice and comment period in several prior instances and has been derived without substantive change from those previously issued. It is unlikely that prior public comment would result in a significant change from the substance contained herein. For this reason, and because a delay would significantly affect the 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 upon issuance. The FAA is requesting comments to allow interested persons to submit views that may not have been submitted in response to the prior opportunities for comment described above.

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 and 44701; 14 CFR 21.16 and 21.101; and 14 CFR 11.38 and 11.19.

The 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 Raytheon Aircraft Model 200, B200, 200C, B200C, 200CT, B200CT, B200T, 300, 300LW, B300, and B300C airplane modified by Elliott Aviation, Inc. to add an EFIS.

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 April 2, 2002.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-9115 Filed 4-16-02; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-SW-67-AD; Amendment 39-12710; AD 2002-08-03]

RIN 2120-AA64

Airworthiness Directives; Enstrom Helicopter Corporation Model F-28, F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) for Enstrom Helicopter Corporation (EHC) Model F-28, F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters. That AD currently requires determining the radius of the shaft fillet, performing certain visual and dye-penetrant inspections before further flight, and replacing certain main rotor transmissions. This amendment requires the same actions as the previous AD, adds additional main rotor gear box part numbers, and corrects various errors contained in the current AD. This amendment is prompted by a commenter who noted that two additional main rotor gear box part numbers should have been included in the AD. The actions specified by this AD are intended to prevent shaft failure and subsequent loss of control of the helicopter.

DATES: Effective May 2, 2002.

Comments for inclusion in the Rules Docket must be received on or before June 17, 2002.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 2001-SW-67-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. You may also send comments electronically to the Rules Docket at the following address: 9-asw-adcomments@faa.gov.

FOR FURTHER INFORMATION CONTACT: Joseph McGarvey, Fatigue Specialist, FAA, Chicago Aircraft Certification

Office, Airframe and Administrative Branch, 2300 East Devon Ave., Des Plaines, Illinois 60018, telephone (847) 294-7136, fax (847) 294-7834.

SUPPLEMENTARY INFORMATION: On October 16, 2001, the FAA issued AD 2001-22-01, Amendment 39-12479 (66 FR 54418, October 29, 2001), to require determining the radius of the shaft fillet, performing certain visual and dye-penetrant inspections before further flight, and replacing certain main rotor transmissions. That AD was prompted by the failure of a shaft on an EHC Model F-28A helicopter due to a fatigue crack. Previously, on August 16, 1976, the FAA issued AD 76-17-08, Amendment 39-2700 (41 FR 36015, August 26, 1976). On September 16, 1976, the FAA revised that AD by issuing AD 76-17-08 R1, Amendment 39-3043 (42 FR 51563, September 29, 1977). That AD was prompted by the FAA's determination, after a review of the service experience, that shaft crack sites may be introduced by allowing the shafts to remain in service for extended periods without modification. That condition, if not corrected, could result in shaft failure and subsequent loss of control of the helicopter. AD 2001-22-01 superseded AD 76-17-08 and AD 76-17-08R1.

Since the issuance of AD 2001-22-01, Amendment 39-12479, the FAA received a comment that the AD should have cited additional part numbers (part number (P/N) 28-13101-3 and P/N 28-13101-3-R) in Table 1 of the AD. Further, Figure 1 of AD 2001-22-01 contained an error—"2.7mm" is now corrected to state "12.7mm". This AD also corrects another part number and other minor typographical errors. Also, since the issuance of the previous AD, the manufacturer has revised its service information and issued Enstrom Helicopter Corporation Service Directive Bulletin No. 0094, Revision 2, dated February 15, 2002.

Since an unsafe condition has been identified that is likely to exist or develop on other helicopters of the same type designs, this AD supersedes AD 2001-22-01 to require the following:

- Before further flight, determine the transmission P/N and the radius of the shaft fillet.
- For certain models, replace any transmission having a shaft with a small radius fillet with an airworthy transmission before further flight.
- For certain other models, replace the transmission having a small radius shaft fillet that is not P/N 28-13101-1, P/N 28-13101-1-R, P/N 28-13101-3, or P/N 28-13101-3-R, with an airworthy transmission before further flight.

- For certain models with transmission, P/N 28-13101-1, P/N 28-13101-1-R, P/N 28-13101-3, or P/N 28-13101-3-R, having a small radius shaft fillet installed:

- Before further flight and at recurring intervals, visually inspect the shaft for a crack using a 10x or higher magnifying glass. If there is any indication of a crack, dye penetrant inspect the shaft before further flight, and if there is a crack, replace the transmission.
- Within 5 hours time-in-service (TIS), and thereafter at specified intervals, dye penetrant inspect the shaft for a crack and polish out specified nicks and scratches.
- If a crack is found or if a nick or scratch exceeds a specified limit, replace the transmission with an airworthy transmission before further flight.

- Within 300 hours TIS or at the next transmission overhaul, whichever occurs first, replace transmission, P/N 28-13101-1, P/N 28-13101-1-R, P/N 28-13101-3, or P/N 28-13101-3-R, with an airworthy transmission having a large radius shaft fillet.

Installing a transmission with a shaft, P/N 28-13104-1-1 or P/N 28-13104-1-R, Revision K, L, M, N, P, R, or S or P/N 28-13140-1 or P/N 28-13140-1-R, is terminating action for the requirements of this AD. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability and structural integrity of the helicopter. Therefore, determining the transmission P/N and the shaft fillet radius, conducting the required inspections, and replacing any unairworthy transmission with an airworthy transmission are required before further flight, and this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

The FAA estimates that 17 helicopters will be affected by this AD, that it will take approximately 1.4 work hours to accomplish the inspections and that the average labor rate is \$60 per work hour. A replacement shaft will cost approximately \$3,000 per helicopter, and overhauling the transmission and replacing the shaft will cost approximately \$12,000. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$256,428, assuming replacement of the