The substance of the special conditions for these airplanes has been subjected to the notice and comment procedure in several prior instances and has been derived without substantive change from those previously issued. 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 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the supplemental type certification basis for Bombardier Model CL–600–1A11 and CL–600–2A12 airplanes as modified by Gulfstream Aerospace Corporation.

1. *Protection from Unwanted Effects of High-Intensity Radiated Fields (HIRF).* Each electrical and electronic system that performs critical functions must be designed and installed to ensure that the operation and operational capability of these systems to perform critical functions are not adversely affected when the airplane is exposed to high-intensity radiated 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 that would prevent the continued safe flight and landing of the airplane.

Issued in Renton, Washington, on October 11, 2002.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02–27171 Filed 10–24–02; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM235; Special Conditions No. 25–219–SC]

Special Conditions: Boeing 727–100 and –200 Series Airplanes; High-Intensity Radiated Fields (HIRF)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for Boeing Model 727–100 and –200 series airplanes modified by Aircraft Systems & Manufacturing, Inc. These modified airplanes will have a novel or unusual design feature when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. The modification incorporates the installation of new dual Innovative Solutions & Support (IS&S) Mach Airspeed Indicators that perform critical functions. The applicable airworthiness regulations do not contain adequate or appropriate safety 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 that established by the existing airworthiness standards.

DATES: The effective date of these special conditions is October 11, 2002. Comments must be received on or before November 25, 2002.

ADDRESSES: Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration, Transport Airplane Directorate, Attention: Rules Docket (ANM–113), Docket No. NM235, 1601 Lind Avenue SW., Renton, Washington 98055–4056; or delivered in duplicate to the Transport Airplane Directorate at the above address. All comments must be marked: Docket No. NM235. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.

FOR FURTHER INFORMATION CONTACT: Connie Beane, FAA, Standardization Branch, ANM–113, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington 98055–4056; telephone (425) 227–2796; facsimile (425) 227–1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA has determined that notice and opportunity for prior public comment hereon are impracticable because these procedures would significantly delay certification, and thus delivery, of the affected airplane. 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; however, the FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning these special conditions. The docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 7:30 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change these special conditions in light of the comments we receive.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On June 19, 2002, Aircraft Systems & Manufacturing, Inc., Georgetown, Texas, applied for a supplemental type certificate (STC) to modify Boeing Model 727–100 and –200 series airplanes. These airplanes are low-wing, pressurized transport category airplanes with three fuselage-mounted jet engines. They are capable of seating between 120 and 189 passengers, depending upon the model and configuration. The modification incorporates the installation of dual IS&S Mach Airspeed Indicators, replacing the existing Mach Airspeed Indicators. The Mach Airspeed Indicators have two modes, normal and

standby, which incorporate both a repeater function and a pneumatic function. These systems have a potential to be vulnerable to high-intensity radiated fields (HIRF) external to the airplane.

Type Certification Basis

Under the provisions of 14 CFR 21.101, Amendment 21–69, effective September 16, 1991, Aircraft Systems & Manufacturing, Inc. must show that the Boeing Model 727–100 and –200 series airplanes, as modified to include the new dual IS&S Mach Airspeed Indicators, continue to meet the applicable provisions of the regulations incorporated by reference in Type Certificate No. A3WE or the applicable regulations in effect on the date of application for the change. Subsequent changes have been made to § 21.101 as part of Amendment 21–77, but those changes do not become effective until June 10, 2003. The regulations incorporated by reference in the type certificate are commonly referred to as the ''original type certification basis.'' The specific regulations included in the certification basis for the Boeing Model 727–100 and –200 series airplanes include Civil Air Regulations (CAR) 4b, as amended by amendments 4b–1 through 4b–12.

If the Administrator finds that the applicable airworthiness regulations (*i.e.,* CAR 4b, as amended) do not contain adequate or appropriate safety standards for the Boeing Model 727–100 and –200 series airplanes because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the Boeing 727–100 and ''200 series airplanes must comply with fuel vent and exhaust emissions requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36.

Special conditions, as defined in 14 CFR 11.19, are issued in accordance with § 11.38 and become part of the airplane's type certification basis in accordance with § 21.101(b)(2), Amendment 21–69, effective September 16, 1991.

Special conditions are initially applicable to the model for which they are issued. Should Aircraft Systems & Manufacturing, Inc. apply at a later date for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, these special conditions would also apply to the other model under the provisions of § 21.101(a)(1), Amendment 21–69, effective September 16, 1991.

Novel or Unusual Design Features

Boeing Model 727–100 and –200 airplanes modified by Aircraft Systems & Manufacturing, Inc. will incorporate new dual IS&S Mach Airspeed Indicators that will perform critical functions. These systems may be vulnerable to high-intensity radiated fields external to the airplane. The current airworthiness standards of part 25 do not contain adequate or appropriate safety standards that address the protection of this equipment from the adverse effects of HIRF. Accordingly, these systems are considered to be novel or unusual design features.

Discussion

There is no specific regulation that addresses protection requirements of electrical and electronic systems from HIRF. Increased power levels from ground-based radio transmitters and the growing use of sensitive avionics/electronics and electrical systems to command and control airplanes have made it necessary to provide adequate protection.

To ensure that a level of safety is achieved that is equivalent to that intended by the regulations incorporated by reference, special conditions are needed for the Boeing Model 727–100 and –200 series airplanes modified by Aircraft Systems & Manufacturing, Inc. These special conditions require that the new dual IS&S Mach Airspeed Indicators, which perform critical functions, be designed and installed to preclude component damage and interruption of function due to both the direct and indirect effects of HIRF.

High-Intensity Radiated Fields (HIRF)

With the trend toward increased power levels from ground-based transmitters and the advent of space and satellite communications, coupled with electronic command and control of the airplane, the immunity of critical digital avionics/electronics and electrical systems to HIRF must be established.

It is not possible to precisely define the HIRF to which the airplane will be exposed in service. There is also uncertainty concerning the effectiveness of airframe shielding for HIRF. Furthermore, coupling of electromagnetic energy to cockpit-installed equipment through the cockpit window apertures is undefined. Based on surveys and analysis of existing HIRF emitters, an adequate level of protection exists when compliance with the HIRF protection special condition is shown with either paragraph 1 or 2 below:

1. A minimum threat of 100 volts rms (root-mean-square) per meter electric field strength from 10 KHz to 18 GHz.

a. The threat must be applied to the system elements and their associated wiring harnesses without the benefit of airframe shielding.

b. Demonstration of this level of protection is established through system tests and analysis.

2. A threat external to the airframe of the field strengths indicated in the table below for the frequency ranges indicated. Both peak and average field strengths components from the table are to be demonstrated.

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–MHz 200	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 of the root-mean-square (rms) over the complete modulation period.

The threat levels identified above are the result of an FAA review of existing studies on the subject of HIRF, in light of the ongoing work of the Electromagnetic Effects Harmonization Working Group of the Aviation Rulemaking Advisory Committee.

Applicability: As discussed above, these special conditions are applicable to the Boeing Model 727–100 and -200 airplanes modified by Aircraft Systems & Manufacturing, Inc. to install new dual IS&S Mach Airspeed Indicators. Should Aircraft Systems & Manufacturing, Inc. apply at a later date for a supplemental type certificate to modify any other model included on Type Certificate A3WE to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well under the provisions of § 21.101(a)(1), Amendment 21–69, effective September 16, 1991.

Conclusion

This action affects only certain design features on the Boeing Model 727–100 and –200 series airplanes modified by Aircraft Systems & Manufacturing, Inc. to include the new dual IS&S Mach Airspeed Indicators. 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 airplanes.

The substance of the special conditions for these airplanes has been subjected to the notice and comment procedure in several prior instances and has been derived without substantive change from those previously issued. 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 publication. 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 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the supplemental type certification basis for the Boeing Model 727 –100 and –200 series airplanes as modified by Aircraft Systems & Manufacturing, Inc.

1. *Protection from Unwanted Effects of High-Intensity Radiated Fields (HIRF).* Each electrical and electronic system that performs critical functions must be designed and installed to ensure that the operation and operational capabilities of these systems to perform critical functions are not adversely affected when the airplane is exposed to high-intensity radiated 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 Renton, Washington, on October 11, 2002.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02–27170 Filed 10–24–02; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99–CE–85–AD; Amendment 39–12917; AD 2002–21–11]

RIN 2120–AA64

Airworthiness Directives; EXTRA Flugzeugbau GmbH Model EA–300S Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to certain EXTRA Flugzeugbau GmbH (EXTRA) Model EA–300S airplanes. This AD requires you (for all affected airplanes) to inspect the upper longeron at the horizontal stabilizer attachment for cracks using a fluorescent dye check penetrant method, repair any cracks found, and modify the horizontal stabilizer. This AD also requires a limit on operation to the Normal category until accomplishment of the initial inspection and modification on airplanes with less than 200 hours time-in-service (TIS). This AD is the result of reports of fatigue cracks at the horizontal stabilizer attachment on the affected airplanes. The actions specified by this AD are intended to detect and correct cracks in the horizontal stabilizer attachment, which could result in structural failure of the aft fuselage with consequent loss of control of the airplane.

DATES: This AD becomes effective on December 17, 2002.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of December 17, 2002.

ADDRESSES: You may get the service information referenced in this AD from EXTRA Flugzeugbau GmbH, Flugplatz Dinslaken, D–46569 Hunxe, Federal Republic of Germany; telephone: (0 28 58) 91 37–00; facsimile: (0 28 58) 91 37–30. You may view this information at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99–CE–85–AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329–4146; facsimile: (816) 329–4090.

SUPPLEMENTARY INFORMATION:

Discussion

What Events Have Caused This AD?

On October 17, 1997, FAA issued a Special Airworthiness Information Bulletin (SAIB) to recommend an inspection of the horizontal stabilizer attachment on EXTRA Models EA–300, EA–300L, and EA–300S airplanes. The SAIB recommended compliance with EXTRA Service Bulletin SB–300–2–95.

The Luftfahrt-Bundesamt (LBA), which is the airworthiness authority for Germany, did not consider the actions of the service bulletin mandatory and consequently did not issue an AD against airplanes on the German register. The FAA also did not issue an AD at this time because the service history did not warrant such action.

Since that time, FAA has received information that indicates fatigue cracks at the horizontal stabilizer attachment are occurring on the above-referenced airplanes. These airplanes are utilized in aerobatic maneuvers and the stress in the area of the horizontal stabilizer can lead to cracks in this area, as well as in the upper longerons and diagonal braces.

What Is the Potential Impact If FAA Took No Action?

This condition, if not corrected, could lead to structural failure of the aft fuselage with consequent loss of control of the airplane.

Has FAA Taken Any Action to This Point?

We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain EXTRA Models EA–300, EA–300L, and EA–300S airplanes. This proposal was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on September 26, 2001 (66 FR 49148). The NPRM proposed to require:

—For all affected airplanes: an inspection of the upper longeron at the horizontal stabilizer attachment for cracks using a fluorescent dye check penetrant method, repair of any cracks found, and modification of the horizontal stabilizer; and