

Frequency	Field Strength (volts per meter)	
	Peak	Average
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 IAI Model 1124 airplanes modified by Garrett Aviation Services. Should Garrett Aviation Services 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 or similar novel or unusual design feature, these 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 the IAI Model 1124 airplanes modified by Garrett Aviation Services. 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 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 to 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 Israel Aircraft Industries Model 1124 airplanes modified by Garrett Aviation Services.

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.

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 November 24, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–30447 Filed 12–8–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM271, Special Conditions No. 25–254–SC]

Special Conditions: Boeing Model 707–300 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 707–300 airplanes modified by AeroMech Incorporated. These modified airplanes will have novel and unusual design features when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. The modification incorporates the installation of dual Innovative Solutions and Support Air Data Display Units. 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 provided by the existing airworthiness standards.

DATES: The effective date of these special conditions is December 1, 2003.

Comments must be received on or before January 8, 2004.

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. NM271, 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. NM271.

FOR FURTHER INFORMATION CONTACT: Greg Dunn, FAA, Airplane and Flight Crew Interface Branch, ANM–111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue, SW., Renton, Washington, 98055–4056; telephone (425) 227–2799; facsimile (425) 227–1320.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA has determined that notice and opportunity for prior public comment is impracticable because these procedures would significantly delay certification of the airplane 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; 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 based on the comments we receive.

If you want the FAA to acknowledge receipt of your comments on these special conditions, 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 August 29, 2003, AeroMech Incorporated applied to the FAA, Fort Worth Special Certification Office, for a supplemental type certificate (STC) to modify certain Boeing Model 707-300 airplanes. These models are currently approved under Type Certificate No. 4A26. The Model 707-300 is a transport category airplane powered by four Pratt & Whitney turbojet engines. This airplane operates with three flightcrew and can hold up to 189 passengers. The modification incorporates the installation of dual Innovative Solutions and Support (IS&S) Air Data Display Units. The information presented is flight critical. The avionics/electronics and electrical systems installed in this airplane have the 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, AeroMech Incorporated must show that the Boeing Model 707-300 airplanes, as changed, continue to meet the applicable provisions of the regulations incorporated by reference in Type Certificate No. 4A26, or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the "original type certification basis." The certification basis for the Model 707-300 airplanes includes Civil Air Regulations (CAR) 4b, as amended by Amendments 4b-1, 4b-2, and 4b-3; and additional requirements identified in the type certificate data sheet that are not relevant to these special conditions.

If the Administrator finds that the applicable airworthiness regulations (CAR 4b, as amended) do not contain adequate or appropriate safety standards for the Boeing Model 707-300 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 Model 707-300 airplanes must comply with the fuel vent and exhaust emission 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 type certification basis in accordance with § 21.101.

Special conditions are initially applicable to the model for which they are issued. Should AeroMech Incorporated apply at a later date for a supplemental type certificate to modify any other model included on Type Certificate 4A26 to incorporate the same or similar novel or unusual design feature, these special conditions would also apply to the other model under the provisions of § 21.101.

Novel or Unusual Design Features

As noted earlier, Boeing Model 707-300 airplanes modified by AeroMech Incorporated will incorporate brand new avionics/electronics and electrical systems (IS&S Air Data Display Units) 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 for the protection of this equipment from the adverse effects of HIRF. Accordingly, this system is considered to be a novel or unusual design feature.

Discussion

There is no specific regulation that addresses protection requirements for 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 equivalent to that intended by the regulations incorporated by reference, special conditions are needed for the Boeing Model 707-300 airplanes modified by AeroMech Incorporated. These special conditions require that new avionics/electronics and electrical systems that 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 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 identified in the table below for the frequency ranges indicated. Both peak and average field strength 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-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 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 Boeing Model 707-300 series airplanes modified by AeroMech Incorporated. Should AeroMech Incorporated apply at a later date for a supplemental type certificate to modify any other model included on Type Certificate 4A26 to incorporate the same or similar novel or unusual design feature, these special conditions would apply to that model as well as under the provisions of § 21.101.

Conclusion

This action affects only certain novel or unusual design features on the Boeing Model 707-300 airplanes modified by AeroMech Incorporated. 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 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 the Boeing Model 707-300 airplanes modified by AeroMech Incorporated.

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.

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 December 1, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-30448 Filed 12-8-03; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA-2003-15466; Airspace Docket No. 03-ASO-9]

Establishment of Class D and E Airspace; Ormond Beach, FL

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action establishes Class D and E4 airspace at Ormond Beach, FL. A Federal contract tower with a weather reporting system has been constructed at the Ormond Beach Municipal Airport. Therefore, the airport meets criteria for Class D and E4 airspace. Class D surface area airspace and Class E4 airspace designated as an extension to Class D airspace is required when the control tower is open to contain Standard Instrument Approach Procedures (SIAPs) and other Instrument Flight Rules (IFR) operations at the airport. This action establishes Class D airspace extending upward from the surface to but not including 1,200 feet MSL, within a 3.2-mile radius of the Ormond Beach Municipal Airport and a Class E4 airspace extension that is 4.8 miles wide and extends 6.9 miles northwest of the airport.

EFFECTIVE DATE: 0901 UTC, February 19, 2004.

FOR FURTHER INFORMATION CONTACT: Walter R. Cochran, Manager, Airspace Branch, Air Traffic Division, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone (404) 305-5586.

SUPPLEMENTARY INFORMATION:

History

On July 17, 2003, the FAA proposed to amend part 71 of the Federal Aviation Regulations (14 CFR part 71) by establishing Class D and E4 airspace at Ormond Beach, FL, (68 FR 42322). This action provides adequate Class D and E4 airspace for IFR operations at Ormond Beach Municipal Airport. Class D airspace designations for airspace areas extending upward from the surface of the earth and Class E4 airspace areas designated as an extension to a Class D surface area are published in Paragraphs 5000 and 6004 respectively, of FAA Order 7400.9L, dated September 2, 2003, and effective September 16, 2003, which is incorporated by reference in 14 CFR 71.1. The Class D and Class E4 designations listed in this document will be published subsequently in the Order.

Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No comments objecting to the proposal were received.

The Rule

This amendment to part 71 of the Federal Aviation Regulations (14 CFR part 71) establishes Class D and E4 airspace at Ormond Beach, FL.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It therefore, (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) so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in CFR Part 71

Airspace, Incorporation by reference, Navigation (Air).

Adoption of the Amendment

■ In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR Part 71 as follows: