

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 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 MHz–2 kHz	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 Raytheon HS.125 Series 700A/B airplanes modified by Midcoast Aviation, Inc. to include the dual Rockwell Collins Air Data Computers (ADC–87A) and ALI–80A altimeters. Should Midcoast Aviation, Inc. apply at a later date for a supplemental type certificate to modify any other model already included on Type Certificate A3EU 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(a)(1), Amendment 21–69, effective September 16, 1991.

Conclusion

This action affects only certain novel or unusual design features on Raytheon HS.125 Series 700A/B airplanes modified by Midcoast Aviation, Inc. 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 Raytheon HS.125 Series 700A/B airplanes modified by Midcoast Aviation, 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 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 April 22, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–11228 Filed 5–6–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM252, Special Conditions No. 25–235–SC]

Special Conditions: McDonnell Douglas Model DC–9–81, –82, –83, and –87 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 McDonnell Douglas Model DC–9–81, –82, –83, and –87 airplanes modified by Electronic Cable Specialists. These airplanes will have novel or unusual design features when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. The modification involves installation of electronic flight displays 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 April 14, 2003. Comments must be received on or before June 6, 2003.

ADDRESSES: Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration, Transport Airplane Directorate, Attn: Rules Docket (ANM–113), Docket No. NM252, 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. NM252.

FOR FURTHER INFORMATION CONTACT: Meghan Gordon, FAA, Standardization Branch, ANM–113, Transport Airplane Directorate, Aircraft Certification

Service, 1601 Lind Avenue SW., Renton, Washington, 98055-4056; telephone (425) 227-2138; facsimile (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA has determined that notice and opportunity for public comment in accordance with 14 CFR 11.38 are unnecessary, because the FAA has provided previous opportunities to comment on substantially identical special conditions and has fully considered and addressed all the substantive comments received. Based on a review of the comment history and the comment resolution, the FAA is satisfied that new comments are unlikely. 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 September 12, 2002, Electronic Cable Specialists applied for a supplemental type certificate (STC) to modify McDonnell Douglas Model DC-9-81, -82, -83, and -87 airplanes. These airplanes are currently approved under Type Certificate A6WE. The modification installs electronic flight

displays in the cockpit. The existing Captain's and First Officer's electro-mechanical attitude indicators (ADIs) and horizontal situation indicators (HSIs) will be replaced by flat panel displays with associated cockpit display controllers. These avionics/electronics and electrical systems may 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, Electronic Cable Specialists must show that McDonnell Douglas Model DC-9-81, -82, -83, and -87 airplanes, as modified, continue to meet the applicable provisions of the regulations incorporated by reference in Type Certificate A6WE 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 certification basis for the McDonnell Douglas Model DC-9-81, -82, -83, and -87 airplanes includes 14 CFR part 25, effective February 1, 1965, as amended by amendments 25-1 through 25-40, except for special conditions and exceptions noted in Type Certificate A6WE.

If the Administrator finds that the applicable airworthiness regulations (*i.e.*, part 25, as amended) do not contain adequate or appropriate safety standards for the McDonnell Douglas Model DC-9-81, -82, -83, and -87 airplanes modified by Electronic Cable Specialists because of novel or unusual design features, special conditions are prescribed under the provisions of § 21.16.

Special conditions, as defined in § 11.19, are issued in accordance with § 11.38 and become part of the 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 Electronic Cable Specialists apply later for a supplemental type certificate to modify any other model included on Type Certificate A6WE to incorporate the same novel or unusual design features, 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

The McDonnell Douglas Model DC-9-81, -81, -83, and -87 airplanes modified by Electronic Cable Specialists will incorporate new electronic flight displays that perform critical functions. This system may be vulnerable to high-intensity radiated fields (HIRF) 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, these systems are considered to be novel or unusual design features.

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 electrical and electronic 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 McDonnell Douglas Model DC-9-81, -82, -83, and -87 airplanes modified by Electronic Cable Specialists. These special conditions require that new avionics/ electronic 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 airplanes, the immunity of critical avionic/ electronic and electrical systems to HIRF must be established.

It is not possible to precisely define the HIRF to which the airplanes 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 in accordance 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
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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 McDonnell Douglas Model DC–9–81, –82, –83, and –87 airplanes modified by Electronic Cable Specialists. Should Electronic Cable Specialists apply later for design change approval to modify any other model included on Type Certificate A6WE 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 novel or unusual design features on McDonnell Douglas Model DC–9–81, –82, –83, and –87 airplanes modified by

Electronic Cable Specialists. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on these airplanes.

The FAA has determined that notice and opportunity for public comment are unnecessary, because the FAA has provided previous opportunities to comment on substantially identical special conditions and has fully considered and addressed all the substantive comments received. The FAA is satisfied that new comments are unlikely and finds, therefore, that good cause exists for making these special conditions effective upon issuance.

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 McDonnell Douglas Model DC–9–81, –82, –83, and –87 airplanes modified by Electronic Cable Specialists.

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 April 14, 2003.

Ali Bahrami

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03–11227 Filed 5–6–03; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2003–14735; Airspace Docket No. 03–AEA–02]

Amendment of Class D Airspace, Rome, NY

AGENCY: Federal Aviation Administration (FAA) DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment removes the description of the Class D airspace designated for Rome, NY. The commissioning of the Airport Traffic Control Tower (ATCT) at Griffiss Airpark, Rome, NY has been delayed indefinitely. Therefore, the Class D airspace designated for Griffiss Airpark cannot be supported and will be removed.

DATES: May 7, 2003.

ADDRESSES: Send comments on the rule in triplicate to: Manager, Airspace Branch, AEA–520, Docket No. FAA–2003–14735; Airspace Docket No. 03–AEA–02, FAA Eastern Region, 1 Aviation Plaza, Jamaica, NY 11434–4809.

The official docket may be examined in the Office of the Regional Counsel, AEA–7, FAA Eastern Region, 1 Aviation Plaza, Jamaica, NY 11434–4809; telephone (718) 553–3255. An informal docket may also be examined during normal business hours at the address listed above.

FOR FURTHER INFORMATION CONTACT: Mr. Francis Jordan, Airspace Specialist, Airspace Branch, AEA–520, Air Traffic Division, Eastern Region, Federal Aviation Administration, 1 Aviation Plaza, Jamaica, NY 11434–4809, telephone: (718) 553–4521.

SUPPLEMENTARY INFORMATION: Although this action is a final rule, which involves the amendment of the Class D at Rome, NY, by removing that airspace designated for Griffiss Airpark, and was not preceded by notice and public procedure, comments are invited on the rule.

Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in evaluating the effects of the rule and in determining whether additional rulemaking is required. Comments are specifically invited on the overall regulatory, aeronautical, environmental, and energy-related aspects of the rule which might suggest the need to modify the rule.