High-Intensity Radiated Fields (HIRF)

With the trend toward increased power levels from ground-based transmitters, plus 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 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 following field strengths 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 Airbus Industrie A300 airplanes modified to Electronic Cable Specialists design. Should Electronic Cable Specialists 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 apply to that model as well under the provisions of § 21.101(a)(1).

Conclusion

This action affects only certain novel or unusual design features on the Airbus Industrie A300 airplanes modified to Electronic Cable Specialists design. 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 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 Airbus Industrie A300 airplanes modified to Electronic Cable Specialists design.

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 February 16, 2001.

Donald L. Riggin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01–4676 Filed 2–23–01; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Airspace Docket No. 00–AWP–6]

Establishment of Class D Airspace; Sacramento Mather Airport, CA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action establishes Class D airspace extending upward from the surface to and including 2,600 feet MSL within a 4.5-mile radius of Sacramento Mather Airport in Sacramento, CA. A review of airspace and procedures has made this action necessary. Last year a Federal Contract Tower commenced operations at this location on a full-time basis, serving a large volume of air cargo and general aviation traffic. The intended effect of this action is to establish Class D airspace consistent with the nature of operations at Sacramento Mather Airport.

EFFECTIVE DATE: May 17, 2001.

FOR FURTHER INFORMATION CONTACT: Jeri Carson, Airspace Specialist, AWP–520.11, Air Traffic Division, Western-Pacific Region, Federal Aviation Administration, 15000 Aviation Boulevard, Lawndale, California 90261, telephone (310) 725–6611.

SUPPLEMENTARY INFORMATION:

Background

On November 28, 2000, the FAA published a document (65 FR 70823) proposing to establish Class D airspace at Sacramento Mather Airport, CA. Interested parties were invited to participate in this rulemaking effort by submitting comments on the proposal to the FAA. In the ensuing comment period, which closed on January 12, 2001, the FAA received no comments on the proposed action.

The Rule

This action amends 14 CFR part 71 by establishing Class D airspace extending upward from the surface to and including 2,600 feet MSL within a 4.5-mile radius of Sacramento Mather Airport in Sacramento, CA.

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

Class D airspace areas are published in Paragraph 5000 of FAA Order 7400.9H, Airspace Designations and Reporting Points, dated September 1, 2000, and effective September 16, 2000, through September 15, 2001, which is incorporated by reference in 14 CFR 71.1. The Class D airspace designation listed in this document will be published subsequently in that Order.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

Adoption of the Amendment

In consideration of the foregoing, the Federal Aviation Administration amends part 71 of Title 14, Code of Federal Regulations as follows:

PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

1. The authority citation for 14 CFR part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

2. The incorporation by reference in 14 CFR 71.1 of the Federal Aviation Administration Order 7400.9H, Airspace Designations and Reporting Points, dated September 1, 2000, and effective September 16, 2000, is amended as follows:

Paragraph 5000 Class D Airspace

* * * * *

AWP CA D Sacramento Mather Airport, CA [New]

Sacramento Mather Airport, CA
(Lat. 38°33′14″, long. 121°17′51″W)

That airspace extending upward from the surface to and including 2,600 feet MSL within a 4.5-mile radius of Sacramento Mather Airport.

* * * * *

Issued in Los Angeles, California, on February 12, 2001.

John Clancy,

Manager, Air Traffic Division, Western-Pacific Region.

[FR Doc. 01–4678 Filed 2–23–01; 8:45 am]

BILLING CODE 4910–13–M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Airspace Docket No. 00–AWP–15]

Modification of Class D and E Surface Areas; Sacramento Executive Airport, CA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action modifies the Class D and E airspace areas at Sacramento Executive Airport by reducing the radius of the basic surface area and by removing those portions of airspace defined as a northeast extension to the basic surface area. A review of airspace and procedures has made this action necessary. The intended effect of this action is to reduce the volume of regulatory airspace at Sacramento Executive Airport to only that necessary for safe and efficient operations.

EFFECTIVE DATE: May 17, 2001.

FOR FURTHER INFORMATION CONTACT: Jeri Carson, Airspace Specialist, AWP–520.11, Air Traffic Division, Western-Pacific Region, Federal Aviation Administration, 15000 Aviation Boulevard, Lawndale, California 90261, telephone (310) 725–6611.

SUPPLEMENTARY INFORMATION:

Background

On November 28, 2000, the FAA published a document (65 FR 70824) proposing to revise the Class D and E airspace areas at Sacramento Executive Airport in Sacramento, California. Interested parties were invited to participate in this rulemaking effort by submitting comments on the proposal to the FAA. In the ensuing comment period, which closed on January 12, 2001, the FAA received no comments on the proposed action.

The Rule

This action amends 14 CFR part 71 by reducing the radius of the basic surface area at Sacramento Executive Airport and by removing those portions of airspace defined as a northeast extension to the basic surface area. The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Therefore, this regulation— (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) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Class D and E2 airspace areas are published in Paragraphs 5000 and 6002, respectively, of FAA Order 7400.9H, Airspace Designations and Reporting Points, dated September 1, 2000, and effective September 16, 2000, through September 15, 2001, which is incorporated by reference in 14 CFR 71.1. The Class D and E2 airspace designations listed in this document will be published subsequently in that Order.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).