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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM260, Special Conditions No. 25-242-SC]

Special Conditions: Dassault Model Falcon 10 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 the Dassault Model Falcon 10 series airplanes. These airplanes, as modified by Frederick A. Whitson, 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 the IS&S Digital Air Data System. 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 July 31, 2003. Comments must be received on or before September 10, 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. NM260, 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. NM260. 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: 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) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA has determined that notice and opportunity for prior public comment are unnecessary in accordance with 14 CFR 11.38, 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 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 May 3, 2003, Frederick A. Whitson, 7700 Ouray Road, Albuquerque, NM 87120, applied to the FAA, Fort Worth Special Certification Office, for a supplemental type certificate (STC) to modify certain Dassault Model Falcon 10 series airplanes. These airplanes are two-flightcrew, two-engine airplanes. The proposed modification incorporates the installation of an IS&S Digital Air Data System. This system replaces the equipment originally installed in these airplanes, which was not accurate enough for reduced vertical separation minimum (RVSM) requirements. The information presented by this equipment is flight critical. The IS&S Digital Air Data System to be installed in this airplane has 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, Frederick A. Whitson must show that the modified Dassault Model Falcon 10 series airplanes, as changed, continue to meet the applicable provisions of the regulations incorporated by reference in Type Certificate No. A33EU, 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 regulations incorporated by reference in Type Certificate No. A33EU include 14 CFR part 25 dated February 1, 1964, including Amendments Nos. 25-1 through 25-20. Type Certificate A33EU was issued September 20, 1973.

If the Administrator finds that the applicable airworthiness regulations (*i.e.*, 14 CFR part 25, as amended) do not contain adequate or appropriate safety standards for the modified Dassault Model Falcon 10 series airplanes, as modified by Frederick A. Whitson, 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 Dassault Model Falcon 10 series airplanes must comply with the fuel vent and exhaust emission requirement of 14 CFR part 34 and the noise certification requirement of 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(b)(2).

Special conditions are initially applicable to the model for which they are issued. Should Frederick A. Whitson 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.

Novel or Unusual Design Features

The modified Falcon 10 will incorporate new avionics/electronics and electrical systems that will perform critical functions. These systems may be vulnerable to HIRF external to the airplane. The current airworthiness standards (14 CFR part 25) do not contain adequate or appropriate safety standards that address protecting this equipment from the adverse effects of HIRF. Accordingly, these instruments are 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 Falcon 10. 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, plus 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 following table 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 Dassault

Model Falcon 10 series airplanes modified by Frederick A. Whitson to include an IS&S Digital Air Data System. Should Frederick A. Whitson apply at a later date for a supplemental type certificate to modify any other model already included on Type Certificate No. A33EU to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well under the provisions of 14 CFR 21.101(a)(1).

Conclusion

This action affects only certain design features on the Dassault Model Falcon 10 series airplanes. 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 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 Dassault Model Falcon 10 series airplanes modified by Frederick A. Whitson:

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 condition that would prevent the continued safe flight and landing of the airplane.

Issued in Renton, Washington, on July 31, 2003.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 03-20400 Filed 8-8-03; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-SW-17-AD; Amendment 39-13215; AD 2003-08-51]

RIN 2120-AA64

Airworthiness Directives; MD Helicopters, Inc. Model 369A, D, E, H, HE, HM, HS, F, and FF Helicopters; Correction

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; correction.

SUMMARY: This document corrects Airworthiness Directive (AD) 2003-08-51 for the specified MD Helicopters, Inc. helicopters that was published in the **Federal Register** on July 2, 2003 (68 FR 39449). The AD contains an incorrect part number (P/N). In all other respects, the original document remains the same.

DATES: Effective July 17, 2003, to all persons except those persons to whom it was made immediately effective by Emergency AD 2003-08-51, issued on April 15, 2003, which contained the requirements of this amendment.

FOR FURTHER INFORMATION CONTACT: Fred Guerin, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone (562) 627-5232, fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: The FAA issued a final rule AD 2003-08-51, on June 3, 2003 (68 FR 39449, July 2, 2003). The following correction is needed:

The last P/N listed in paragraph (c) of the AD is incorrectly listed as 500P3500-70; the correct P/N is 500P3500-701. Therefore, the P/N needs correcting.

Since no other part of the regulatory information has been revised, the final rule is not being republished.

Correction of the Publication

■ Accordingly, the publication on July 2, 2003 of the final rule (AD 2003-08-51), which was the subject of FR Doc. 03-16687, is corrected as follows:

§ 39.13 [Corrected]

■ On page 39451, in the second column, paragraph (c), the last part number, “500P3500-70,” in that paragraph is corrected to read “500P3500-701”.

Issued in Fort Worth, Texas, on August 1, 2003.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.
[FR Doc. 03-20237 Filed 8-8-03; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA-2003-14856; Airspace Docket No. 03-AAL-06]

Establishment of Class E Airspace; Igiugig, AK

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action establishes Class E airspace at Igiugig, AK to provide adequate controlled airspace to contain aircraft executing two new Standard Instrument Approach Procedures (SIAP). This rule results in new Class E airspace upward from 700 ft. above the ground at Igiugig, AK.

EFFECTIVE DATE: 0901 UTC, October 30, 2003.

FOR FURTHER INFORMATION CONTACT: Derril Bergt, AAL-531, Federal Aviation Administration, 222 West 7th Avenue, Box 14, Anchorage, AK 99513-7587; telephone number (907) 271-2796; fax: (907) 271-2850; email: Derril.Bergt@faa.gov. Internet address: <http://www.alaska.faa.gov/at>.

SUPPLEMENTARY INFORMATION:

History

On Monday, May 5, 2003, the FAA proposed to revise part 71 of the Federal Aviation Regulations (14 CFR part 71) to create new Class E airspace upward from 700 ft. above the surface at Igiugig, AK (68 FR 23625). The action was proposed in order to add Class E airspace sufficient in size to contain

aircraft while executing two new SIAPs for the Igiugig Airport. The new approaches are (1) Area Navigation-Global Positioning System (RNAV GPS) Runway 05 original, and (2) RNAV (GPS) Runway 23 original. Interested parties were invited to participate in this rulemaking proceeding by submitting written comments on the proposal to the FAA. No public comments have been received, thus, the rule is adopted as proposed.

The area will be depicted on aeronautical charts for pilot reference. The coordinates for this airspace docket are based on North American Datum 83. The Class E airspace areas designated as 700/1200 foot transition areas are published in paragraph 6005 of FAA Order 7400.9K, *Airspace Designations and Reporting Points*, dated August 30, 2002, and effective September 16, 2002, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designation listed in this document will be revoked and revised subsequently in the Order.

The Rule

This revision to 14 CFR part 71 establishes Class E airspace at Igiugig, Alaska. This additional Class E airspace is being created to accommodate aircraft executing new SIAPs and will be depicted on aeronautical charts for pilot reference. The intended effect of this rule is to provide adequate controlled airspace for IFR operations at Igiugig Airport, Igiugig, Alaska.

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. 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) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this 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.

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 14 CFR part 71 as follows: