

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 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 indicated in the table below for the frequency ranges indicated. Both peak and average field strength components from the table below 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

Frequency	Field strength (volts per meter)	
	Peak	Average
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 Aircraft Company Model HS.125 Series 700A airplanes modified by Duncan Aviation, Inc. to include the Collins FDS-2000 Flight Display System, the Dual Collins AHS-3000A Attitude/ Heading Reference System and the Dual IS&S Air Data System. Should Duncan 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 novel or unusual design features, 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 Raytheon Aircraft Company Model HS.125 Series 700A airplanes modified by Duncan 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 the special conditions for this airplane has been subjected to 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 Aircraft Company Model HS.125 Series 700A airplanes modified by Duncan 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 September 17, 2002.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-24242 Filed 9-23-02; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-CE-37-AD; Amendment 39-12884; AD 2002-19-04]

RIN 2120-AA64

Airworthiness Directives; Raytheon Aircraft Company Model 390 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to certain Raytheon Aircraft Company (Raytheon) Model 390 airplanes. This AD requires you to replace the inboard fuel probe mounting brackets with ones of improved design. This AD is the result of reports of a design problem with the fuel probe

assembly brackets. The actions specified by this AD are intended to correct the required air gap clearance between the fuel probe and the adjacent wing fuel tank access panel, which could result in arcing between the two conductive materials in the event of a lightning strike. This could serve as an ignition source inside the fuel tank and result in fire or explosion.

DATES: This AD becomes effective on October 4, 2002.

The Director of the Office of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of October 4, 2002.

The Federal Aviation Administration (FAA) must receive any comments on this rule on or before November 8, 2002.

ADDRESSES: Submit comments to FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-CE-37-AD, 901 Locust, Room 506, Kansas City, Missouri 64106. You may view any comments at this location between 8 a.m. and 4 p.m., Monday through Friday, except Federal holidays. You may also send comments electronically to the following address: *9-ACE-7-Docket@faa.gov*. Comments sent electronically must contain "Docket No. 2002-CE-37-AD" in the subject line. If you send comments electronically as attached electronic files, the files must be formatted in Microsoft Word 97 for Windows or ASCII text.

You may get the service information referenced in this AD from Raytheon Aircraft Company, P.O. Box 85, Wichita, Kansas 67201-0085; telephone: (800) 429-5372 or (316) 676-3140. You may view this information at FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2002-CE-37-AD, 901 Locust, Room 506, Kansas City, Missouri 64106.

FOR FURTHER INFORMATION CONTACT:

James P. Galstad, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4135; facsimile: (316) 946-4407.

SUPPLEMENTARY INFORMATION:

Discussion

What Events Have Caused This AD?

The FAA has received a report that, during factory testing on a Model 390 airplane, serial number RB-16, the inboard forward fuel probe of both the left and right wing did not have proper clearance between the inboard fuel probe and the adjacent fuel access panel domed nutplate. Allowances for the nutplates were omitted from the design

of the fuel probe brackets. Specific air gap clearance between the inboard fuel probe and the adjacent fuel access panel domed nutplate is necessary in order to prevent possible arcing between the two conductive materials.

What Are the Consequences if the Condition Is Not Corrected?

This condition, if not corrected, could result in arcing between the two conductive materials in the event of a lightning strike. This could serve as an ignition source inside the fuel tank and result in fire or explosion.

Is There Service Information That Applies to This Subject?

Raytheon has issued Mandatory Service Bulletin SB 28-3537, Rev. 1, Revised: August, 2002.

The service bulletin includes procedures for replacing the inboard fuel probe mounting brackets with ones of improved design.

The FAA's Determination and an Explanation of the Provisions of This AD

What Has FAA Decided?

The FAA has reviewed all available information and determined that:

- The unsafe condition referenced in this document exists or could develop on other Raytheon Model 390 airplanes of the same type design; and
- AD action should be taken in order to correct this unsafe condition.

What Does This AD Require?

This AD requires you to replace the inboard fuel probe mounting brackets with ones of improved design.

In preparation of this rule, we contacted type clubs and aircraft operators to obtain technical information and information on operational and economic impacts. We did not receive any information through these contacts. If received, we would have included, in the rulemaking docket, a discussion of any information that may have influenced this action.

Will I Have the Opportunity To Comment Prior to the Issuance of the Rule?

Because the unsafe condition described in this document could result in fire or explosion, we find that notice and opportunity for public prior comment are impracticable. Therefore, good cause exists for making this amendment effective in less than 30 days.

Comments Invited

How Do I Comment on This AD?

Although this action is in the form of a final rule and was not preceded by notice and opportunity for public comment, FAA invites your comments on the rule. You may submit whatever written data, views, or arguments you choose. You need to include the rule's docket number and submit your comments to the address specified under the caption **ADDRESSES**. We will consider all comments received on or before the closing date specified above. We may amend this rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether we need to take additional rulemaking action.

Are There Any Specific Portions of the AD I Should Pay Attention to?

We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. You may view all comments we receive before and after the closing date of the rule in the Rules Docket. We will file a report in the Rules Docket that summarizes each FAA contact with the public that concerns the substantive parts of this AD.

How Can I Be Sure FAA Receives My Comment?

If you want us to acknowledge the receipt of your mailed comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 2002-CE-37-AD." We will date stamp and mail the postcard back to you.

Regulatory Impact

Does This AD Impact Various Entities?

These regulations will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, FAA has determined that this final rule does not have federalism implications under Executive Order 13132.

Does This AD Involve a Significant Rule or Regulatory Action?

We have determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a significant regulatory action under Executive Order 12866. It has been determined further that this action

involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket (otherwise, an evaluation is not required). A copy of it, if filed, may be obtained from the Rules Docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator,

the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

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

§ 39.13 [Amended]

2. FAA amends § 39.13 by adding a new airworthiness directive (AD) to read as follows:

2002-19-04 Raytheon Aircraft Company:

Amendment 39-12884; Docket No. 2002-CE-37-AD.

(a) *What airplanes are affected by this AD?* This AD applies to Model 390 airplanes, serial numbers RB-4 through RB-15, RB-19

through RB-32, and RB-34 through RB-40, that are certificated in any category.

(b) *Who must comply with this AD?*

Anyone who wishes to operate any of the airplanes identified in paragraph (a) of this AD must comply with this AD.

(c) *What problem does this AD address?*

The actions specified by this AD are intended to correct the air gap clearance between the fuel probe and the adjacent wing fuel tank access panel, which could result in arcing between the two conductive materials in the event of a lightning strike. This could serve as an ignition source inside the fuel tank and result in fire or explosion.

(d) *What must I do to address this problem?* To address this problem, you must

accomplish the following actions:

Actions	Compliance	Procedures
(1) Replace the existing upper and lower fuel probe brackets with new upper and lower fuel probe brackets, part numbers 390-920304-001/002 (upper) and 390-920305-001/002 (lower), or FAA-approved equivalent part numbers.	Within the next 50 hours time-in-service after October 4, 2002 (the effective date of this AD).	In accordance with Raytheon Aircraft Mandatory Service Bulletin SB 28-3537, Rev. 1, Revised: August, 2002.
(2) Do not install upper and lower fuel probe brackets that are not part numbers 390-920304-001/002 (upper) and 390-920305-001/002 (lower), or FAA-approved equivalent part numbers.	As of October 4, 2002 (the effective date of this AD).	Not applicable.

Note 1: The compliance time of this AD differs from that specified in Raytheon Aircraft Mandatory Service Bulletin SB 28-3537, Rev. 1, Revised: August, 2002. This AD takes precedence over any other information on the affected airplanes.

(e) *Can I comply with this AD in any other way?* You may use an alternative method of compliance or adjust the compliance time if:

(1) Your alternative method of compliance provides an equivalent level of safety; and

(2) The Manager, Wichita Aircraft Certification Office (ACO), approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

Note 2: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not eliminated the unsafe condition, specific actions you propose to address it.

(f) *Where can I get information about any already-approved alternative*

methods of compliance? Contact James P. Galstad, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4135; facsimile: (316) 946-4407.

(g) *What if I need to fly the airplane to another location to comply with this AD?* The FAA can issue a special flight permit under §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) *Are any service bulletins incorporated into this AD by reference?*

Actions required by this AD must be done in accordance with Raytheon Aircraft Mandatory Service Bulletin SB 28-3537, Rev. 1, Revised: August, 2002. The Director of the Federal Register approved this incorporation by reference under 5 U.S.C. 552(a) and 1 CFR part 51. You may get copies from Raytheon Aircraft Company, P.O. Box 85, Wichita, Kansas 67201-0085; telephone: (800) 429-5372 or (316) 676-3140. You may view copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(i) *When does this amendment become effective?* This amendment becomes effective on October 4, 2002.

Issued in Kansas City, Missouri, on September 13, 2002.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-23880 Filed 9-23-02; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-SW-11-AD; Amendment 39-12886; AD 2002-19-06]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Model EC 155B Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for Eurocopter France (Eurocopter) Model