

adverse effects of HIRF. Therefore, we consider this system 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 Raytheon Aircraft Company Model BAe.125 Series 800A airplanes modified by Duncan Aviation, Inc. 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 because of 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 Raytheon Aircraft Company Model BAe.125 Series 800A airplanes modified by Duncan Aviation, Inc. Should Duncan Aviation, Inc. apply later for a supplemental type certificate to modify any other model included on Type Certificate No. A3EU to incorporate the same or similar novel or unusual design feature, these special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on Raytheon Aircraft Company Model BAe.125 Series 800A airplanes as 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 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 send views that may not have been sent 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 BAe.125 Series 800A 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 February 12, 2007.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E7-3231 Filed 2-23-07; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-24034; Directorate Identifier 2006-NE-05-AD; Amendment 39-14959; AD 2007-04-26]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney PW4077D, PW4084D, PW4090, and PW4090-3 Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding an existing airworthiness directive (AD) for Pratt & Whitney PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines that were reassembled with previously used high pressure compressor (HPC) exit brush seal packs and new or refurbished HPC exit diffuser air seal lands. That AD currently requires replacing the HPC exit inner and outer brush seal packs with new brush seal packs, or replacing the HPC exit brush seal assembly with a new HPC exit brush seal assembly. This AD requires replacing the HPC exit inner and outer brush seal packs with new brush seal packs, using either original equipment manufactured (OEM) parts, or FAA-approved part manufacturer approval (PMA) parts. This proposed AD also applies to engines reassembled with a PMA HPC exit inner and or outer brush seal packs. This AD results from a request to include PMA HPC exit inner and outer brush seal packs and to include the engines with PMA parts already installed, in the AD. We are issuing this AD to prevent uncontained engine failure, damage to the airplane, and injury to passengers.

DATES: This AD becomes effective April 2, 2007.

ADDRESSES: You may examine the AD docket on the Internet at <http://dms.dot.gov> or in Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5213; telephone (781) 238-7751; fax (781) 238-7199; e-mail: antonio.cancelliere@faa.gov.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to Pratt & Whitney PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines that were reassembled with previously used HPC exit brush seal packs and new or refurbished HPC exit diffuser air seal lands. We published the proposed AD in the **Federal Register** on November 20, 2006 (71 FR 67073). That action proposed to require replacing the HPC exit inner and outer brush seal packs with new brush seal packs, using either OEM parts, or FAA-approved PMA parts. That action also proposed to apply to engines reassembled with a PMA HPC exit inner and or outer brush seal packs.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility Docket Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in **ADDRESSES**. Comments will be available in the AD docket shortly after the DMS receives them.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

Request To Add Part Numbers in the AD Applicability

One commenter, All Nippon Airways, requests that we add Pratt & Whitney and PMA part numbers in the AD applicability to avoid confusion as to what parts are to be removed and replaced.

We do not agree. We adequately identified the parts requiring replacement, as well as the unsafe condition, in the proposed AD. Pratt & Whitney part numbers can be found in Alert Service Bulletin No. PW4G-112-A72-280, Revision 2, dated January 12, 2007, which we refer to as additional information. We did not change the AD.

Request To Allow Installing an HPC Exit Brush Seal Assembly

One commenter, Pratt & Whitney, requests that we also allow installing an HPC exit brush seal assembly, in lieu of installing an HPC exit brush seal pack, to comply with the AD.

We agree. Compliance with the AD can be achieved by installing either an HPC exit brush seal pack or an HPC exit brush seal assembly. Although installing an HPC exit brush seal assembly may be more costly for operators, it may be more convenient. We changed the AD compliance to allow for either replacement.

Used Part Prohibition

For clarification, we added a used part prohibition paragraph in the compliance section. It states that engine reassembly with used OEM or used FAA-approved PMA HPC exit inner and outer brush seal packs with OEM or FAA-approved PMA new HPC exit inner and outer brush seal lands, is prohibited.

Conclusion

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

We estimate that this AD will affect 76 Pratt & Whitney PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines installed on airplanes of U.S. registry. We also estimate that it will take about 9 work-hours per engine to perform the parts replacement, and that the average labor rate is \$80 per work-hour. Required parts will cost about \$99,990 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$7,653,950.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

- (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) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under **ADDRESSES**.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

■ Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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. The FAA amends § 39.13 by removing Amendment 39-14729 (71 FR 49335, August 23, 2006), and by adding a new airworthiness directive, Amendment 39-14959, to read as follows:

2007-04-26 Pratt & Whitney: Amendment 39-14959. Docket No. FAA-2006-24034; Directorate Identifier 2006-NE-05-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective April 2, 2007.

Affected ADs

(b) This AD supersedes AD 2006-17-08, Amendment 39-14729.

Applicability

(c) This AD applies to Pratt & Whitney PW4077D, PW4084D, PW4090, and PW4090-3 turbofan engines that were:

(1) Reassembled with a previously used original equipment manufacturer (OEM) or part manufacturer approval (PMA) high pressure compressor (HPC) exit inner brush seal pack; and

(2) Reassembled with a new or refurbished OEM or PMA HPC exit diffuser air seal inner land.

(d) These engines are installed on, but not limited to, Boeing 777 airplanes.

Unsafe Condition

(e) This AD supersedure results from a request to include PMA HPC exit inner and outer brush seal packs and to include the engines with PMA parts already installed, in the AD. This AD action is the result of a report of oil leaking into the high pressure turbine (HPT) interstage cavity and igniting, leading to an engine case penetration and engine in-flight shutdown. We are issuing this AD to prevent uncontained engine

failure, damage to the airplane, and injury to passengers.

Compliance

(f) You are responsible for having the actions required by this AD performed at the following compliance times, unless the actions have already been done.

(g) Replace the HPC exit inner and outer brush seal packs with OEM or FAA-approved PMA new HPC exit inner and outer brush seal packs, or an OEM or FAA-approved PMA new HPC exit brush seal assembly, as follows:

(1) By 3,000 cycles-in-service (CIS) since a used HPC exit inner brush seal pack and a new or refurbished HPC exit diffuser air seal land were installed in the engine, or by March 31, 2007, whichever occurs later; however

(2) If on March 31, 2007, the used HPC exit inner brush seal pack coupled with a new or refurbished HPC exit diffuser air seal inner land assembly has not accumulated 3,000 CIS, then by 3,000 CIS, or December 31, 2008, whichever occurs first.

Used Part Prohibition

(h) Engine reassembly with used OEM or used FAA-approved PMA HPC exit inner and outer brush seal packs with OEM or FAA-approved PMA new HPC exit inner and outer brush seal lands, is prohibited.

(i) Information on replacing HPC exit inner and outer brush seal packs can be found in the Pratt & Whitney Alert Service Bulletin No. PW4G-112-A72-280, Revision 2, dated January 12, 2007, and in the engine overhaul manual.

Alternative Methods of Compliance

(j) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(k) Pratt & Whitney Alert Service Bulletin No. PW4G-112-A72-280, Revision 2, dated January 12, 2007, also pertains to the subject of this AD.

(l) Contact Antonio Cancelliere, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5213; telephone (781) 238-7751; fax (781) 238-7199; e-mail: antonio.cancelliere@faa.gov for more information about this AD.

Issued in Burlington, Massachusetts, on February 16, 2007.

Peter A. White,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. E7-3017 Filed 2-23-07; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA-2006-26311; Airspace Docket No. 06-AWP-19]

RIN 2120-AA66

Modification of Class D Airspace; Luke Air Force Base, AZ

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action modifies Class D airspace at Luke Air Force Base (LUF), AZ. This modification is necessary to contain and protect circling maneuvers for Category E aircraft executing these maneuvers in conjunction with Standard Instrument Approach Procedures (SIAPs) at the airport.

DATES: *Effective Date:* 0901 UTC, May 10, 2007. The Director of the Federal Register approves this incorporation by reference action under title 1, Code of Federal Regulations, part 51, subject to the annual revision of FAA Order 7400.9 and publication of conforming amendments.

FOR FURTHER INFORMATION CONTACT: Francie Hope, System Support Specialist, Western Service Center, AJO2-W2, Federal Aviation Administration, 15000 Aviation Boulevard, Lawndale, California 90261, telephone (310) 725-6502.

SUPPLEMENTARY INFORMATION:

History

On December 7, 2006, the FAA published in the **Federal Register** (71 FR 70910) a notice of proposed rulemaking to revise the Class D airspace at Luke Air Force Base, AZ. Interested parties were invited to participate in this rulemaking effort by submitting written comments on this proposal to the FAA. On January 11, 2007, a notice of proposed rulemaking correction was published in the **Federal Register** (72 FR 1301), changing the legal description to better describe the requisite airspace. No comments were received. This modification is the same as that proposed in the notice. Class D airspace areas are published in Paragraph 5000 of FAA Order 7400.9P dated September 1, 2006, and effective September 15, 2006, which is incorporated by reference in 14 CFR 71.1. The Class D airspace designation listed in this document will be published subsequently in the Order.