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[Page 25396-25399]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0478; Directorate Identifier 2008-NM-133-AD; Amendment 39-15917; AD 2009-11-07]

RIN 2120-AA64

Airworthiness Directives; British Aerospace Model HS 748 Airplanes

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

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

Resulting from the assessment of fuel tank wiring installations required by SFAR 88 (Special Federal Aviation Regulation) and equivalent JAA/EASA (Joint Aviation Authorities/European Aviation Safety Agency) policy, BAE Systems (Operations) Limited has revised the HS.748 Aircraft Maintenance Manual (AMM), now at Revision 19, to introduce Chapter 05-10-00 "Critical Design Configuration Control Limitations (CDCCL)–Fuel System". The CDCCLs provide instructions to retain critical ignition source prevention features during configuration changes that may be caused by modification, repair or maintenance actions.

The CDCCLs have been identified as requirements for continued airworthiness to address the risk of fuel vapour ignition sources remaining undetected. This condition, if not corrected, could result in a fuel tank explosion and consequent loss of the aircraft.

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This AD requires actions that are intended to address the unsafe condition described in the MCAI.

DATES: This AD becomes effective June 12, 2009.

The Director of the Federal Register approved the incorporation by reference of a certain publication, listed in the AD as of June 12, 2009.

We must receive comments on this AD by June 29, 2009.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2008-0125, dated July 2, 2008 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

Resulting from the assessment of fuel tank wiring installations required by SFAR 88 (Special Federal Aviation Regulation) and equivalent JAA/EASA (Joint Aviation Authorities/European Aviation Safety Agency) policy, BAE Systems (Operations) Limited has revised the HS.748 Aircraft Maintenance Manual (AMM), now at Revision 19, to introduce Chapter 05-10-00 "Critical Design Configuration Control Limitations (CDCCL)–Fuel System". The CDCCLs provide instructions to retain critical ignition source prevention features during configuration changes that may be caused by modification, repair or maintenance actions.

The CDCCLs have been identified as requirements for continued airworthiness to address the risk of fuel vapour ignition sources remaining undetected. This condition, if not corrected, could result in a fuel tank explosion and consequent loss of the aircraft.

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The required action is revising the maintenance program to include the CDCCL data. CDCCLs are limitation requirements to preserve a critical ignition source prevention feature of the fuel tank system design that is necessary to prevent the occurrence of an unsafe condition. The purpose of a CDCCL is to provide instruction to retain the critical ignition source prevention feature during configuration change that may be caused by alterations, repairs, or maintenance actions. A CDCCL is not a periodic inspection.

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a regulation titled "Transport Airplane Fuel Tank System Design Review, Flammability Reduction and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, this rule included Special Federal Aviation Regulation No. 88 ("SFAR 88," Amendment 21-78, and subsequent Amendments 21-82 and 21-83).

Among other actions, SFAR 88 requires certain type design (i.e., type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the rule, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure types under evaluation: single failures, single failures in combination with a latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

The Joint Aviation Authorities (JAA) has issued a regulation that is similar to SFAR 88. (The JAA is an associated body of the European Civil Aviation Conference (ECAC) representing the civil aviation regulatory authorities of a number of European States who have agreed to co-operate in developing and implementing common safety regulatory standards and procedures.) Under this regulation, the JAA stated that all members of the ECAC that hold type certificates for transport category airplanes are required to conduct a design review against explosion risks.

We have determined that the actions identified in this AD are necessary to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

BAE Systems (Operations) Limited has issued Subsection 05-10-00, "Critical Design Configuration Control Limitations (CDCCL)–Fuel System," of HS 748 Aircraft Maintenance Manual (AMM), Revision 19, dated January 15, 2008. The actions described in the CDCCL are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

There are no products of this type currently registered in the United States. However, this rule is necessary to ensure that the described unsafe condition is addressed if any of these products are placed on the U.S. Register in the future.

Differences Between the AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a NOTE within the AD.

FAA's Determination of the Effective Date

Since there are currently no domestic operators of this product, notice and opportunity for public comment before issuing this AD are unnecessary.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2009-0478; Directorate Identifier 2008-NM-133-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

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 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 this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the 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 regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD 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 FAA 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 adding the following new AD:



2009-11-07 BAE Systems (Operations) Limited (Formerly British Aerospace Regional Aircraft): Amendment 39-15917. Docket No. FAA-2009-0478; Directorate Identifier 2009-NM-133-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective June 12, 2009.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all BAE Systems (Operations) Limited Model HS 748 series 2A and series 2B airplanes, certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 28: Fuel.

Reason

(e) The mandatory continued airworthiness information (MCAI) states:

Resulting from the assessment of fuel tank wiring installations required by SFAR 88 (Special Federal Aviation Regulation) and equivalent JAA/EASA (Joint Aviation Authorities/European Aviation Safety Agency) policy, BAE Systems (Operations) Limited has revised the HS.748 Aircraft Maintenance Manual (AMM), now at Revision 19, to introduce Chapter 05-10-00 "Critical Design Configuration Control Limitations (CDCCL)–Fuel System". The CDCCLs provide instructions to retain critical ignition source prevention features during configuration changes that may be caused by modification, repair or maintenance actions.

The CDCCLs have been identified as requirements for continued airworthiness to address the risk of fuel vapour ignition sources remaining undetected. This condition, if not corrected, could result in a fuel tank explosion and consequent loss of the aircraft.

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The required action is revising the maintenance program to include the CDCCL data.

Actions and Compliance

(f) Unless already done, within 3 months after the effective date of this AD, revise the maintenance program to incorporate the CDCCL information specified in Subsection 05-10-00,

"Critical Design Configuration Control Limitations (CDCCL)–Fuel System," of BAE Systems (Operations) Limited HS 748 Aircraft Maintenance Manual (AMM), Revision 19, dated January 15, 2008. Thereafter, no alternative CDCCL may be used unless approved as an alternative method of compliance in accordance with the procedures specified in paragraph (g)(1) of this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2125; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) Airworthiness Directive 2008-0125, dated July 2, 2008, and Subsection 05-10-00, "Critical Design Configuration Control Limitations (CDCCL)–Fuel system," Revision 19, dated January 15, 2008, of BAE Systems (Operations) Limited HS 748 AMM, for related information.

Material Incorporated by Reference

(i) You must use Subsection 05-10-00, "Critical Design Configuration Control Limitations (CDCCL)–Fuel System," of BAE Systems (Operations) Limited HS 748 AMM, Revision 19, dated January 15, 2008, to do the actions required by this AD, unless the AD specifies otherwise. BAE Systems (Operations) Limited HS 748 AMM, Revision 19, dated January 15, 2008, contains the following effective pages:

List of Effective Pages:

Page Title/Description	Page Number(s)	Revision Number	Date Shown on Page(s)
AMM Title Page	1	19	January 15, 2008
Chapter 05 List of Effective Pages	1-2	*	January 15, 2008
Subsection 05-10-00	1-2	*	January 15, 2008

* Not shown.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact BAE Systems Regional Aircraft, 13850 McLearen Road, Herndon, Virginia 20171; telephone 703-736-1080; e-mail raebusiness@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on May 15, 2009.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.