

[Federal Register: October 7, 2010 (Volume 75, Number 194)]
[Rules and Regulations]
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From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr07oc10-4]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0474; Directorate Identifier 2009-NM-056-AD; Amendment 39-16465; AD 2010-21-05]

RIN 2120-AA64

Airworthiness Directives; BAE Systems (Operations) Limited Model 4101 Airplanes

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

ACTION: Final rule.

SUMMARY: We are superseding an existing 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:

During ground manoeuvring, prolonged operation with either engine in the restricted range between 82% and 90% RPM [revolutions per minute] will result in damage [e.g., cracking of the blade or hub] to the propeller assembly that could eventually result in the release of a propeller blade.

* * * EASA [European Aviation Safety Agency] AD 2007-0268 [which corresponds to FAA AD 2008-13-02, amendment 39-15565] was issued to require the installation of a Propeller Warning Placard and implementation of a corresponding Aircraft Flight Manual (AFM) limitation instructing the flight crew to taxi with the condition lever at FLIGHT in order to minimise the time spent by the engines in the restricted range. BAE Systems has now developed a Propeller Speed Warning System * * *.

* * * * *

A released propeller blade could result in engine failure and loss of control of the airplane. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective November 12, 2010.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 12, 2010.

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of July 24, 2008 (73 FR 34847, June 19, 2008).

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on May 10, 2010 (75 FR 25785), and proposed to supersede AD 2008-13-02, amendment 39-15565 (73 FR 34847), June 19, 2008. That NPRM proposed to correct an unsafe condition for the specified products.

Since we issued AD 2008-13-02, inadvertent high RPMs taxiing operations have been reported to have caused stress to the propeller blades, which can result in dangerous blade cracks. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2009-0038, dated February 18, 2009 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During ground manoeuvring, prolonged operation with either engine in the restricted range between 82% and 90% RPM [revolutions per minute] will result in damage [e.g., cracking of the blade or hub] to the propeller assembly that could eventually result in the release of a propeller blade.

To correct this unsafe condition, EASA AD 2007-0268 [which corresponds to FAA AD 2008-13-02, amendment 39-15565] was issued to require the installation of a Propeller Warning Placard and implementation of a corresponding Aircraft Flight Manual (AFM) limitation, instructing the flight crew to taxi with the condition lever at FLIGHT in order to minimise the time spent by the engines in the restricted range. BAE Systems has now developed a Propeller Speed Warning System, the embodiment of which will allow taxiing with the condition lever at TAXI, through the introduction of a revised Flight Manual Limitation.

For the reasons described above, this EASA AD retains the requirements of EASA AD 2007-0268, which is superseded, and requires the installation of a Propeller Speed Warning System.

A released propeller blade could result in engine failure and loss of control of the airplane. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Clarification of Paragraph (h)(2) of This AD

The revision to the BAE Jetstream Series 4100 Flight Manual (FM) includes information on introducing a propeller speed warning system on airplanes that have Modification JM41674. We have also removed the reference to the alternative methods of compliance (AMOC) paragraph and have specified the appropriate source of approval procedures to accomplish the requirements of paragraph (h)(2) of this AD.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD with the changes described previously. We determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Differences Between This 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 our FAA policies. Any such differences are highlighted in a NOTE within the AD.

Costs of Compliance

We estimate that this AD will affect about 3 products of U.S. registry.

The actions that are required by AD 2008-13-02 and retained in this AD take about 2 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts cost about \$25 per product. Based on these figures, the estimated cost of the currently required actions is \$195 per product.

We estimate that it will take about 20 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$2,800 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these costs. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$14,085, or \$4,695 per product.

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.

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 the NPRM, 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.

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 removing amendment 39-15565 (73 FR 34847, June 19, 2008) and adding the following new AD:



2010-21-05 BAE Systems (Operations) Limited: Amendment 39-16465. Docket No. FAA-2010-0474; Directorate Identifier 2009-NM-056-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective November 12, 2010.

Affected ADs

- (b) This AD supersedes AD 2008-13-02, amendment 39-15565.

Applicability

- (c) This AD applies to all BAE SYSTEMS (Operations) Limited Model 4101 airplanes, certificated in any category.

Subject

- (d) Air Transport Association (ATA) of America Code 61: Propellers/Propulsors.

Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

During ground manoeuvring, prolonged operation with either engine in the restricted range between 82% and 90% RPM [revolutions per minute] will result in damage [e.g., cracking of the blade or hub] to the propeller assembly that could eventually result in the release of a propeller blade.

To correct this unsafe condition, EASA [European Aviation Safety Agency] AD 2007-0268 [which corresponds to FAA AD 2008-13-02, amendment 39-15565] was issued to require the installation of a Propeller Warning Placard and implementation of a corresponding Aircraft Flight Manual (AFM) limitation, instructing the flight crew to taxi with the condition lever at FLIGHT in order to minimise the time spent by the engines in the restricted range. BAE Systems has now developed a Propeller Speed Warning System, embodiment of which will allow taxiing with the condition lever at TAXI, through the introduction of a revised Flight Manual Limitation.

For the reasons described above, this EASA AD retains the requirements of EASA AD 2007-0268, which is superseded, and requires the installation of a Propeller Speed Warning System.

A released propeller blade could result in engine failure and loss of control of the airplane.

Compliance

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

Restatement of Requirements of AD-2008-13-02

Actions

(g) Within 90 days after July 24, 2008 (the effective date of AD 2008-13-02), unless already done, do the following actions.

(1) Replace the existing Propeller Limitations Placard in the cockpit with a new placard, in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Service Bulletin J41-11-027, dated March 29, 2007.

(2) Revise the BAE Jetstream Series 4100 Flight Manual (FM) to include the information in BAE Jetstream Series 4100 General Amendment G12, approved January 2007; and BAE Jetstream Series 4100 Advance Amendment Bulletin 13, approved April 4, 2007. General Amendment G12 describes a rolling take-off technique and the reduced possibility of landing with ice contaminating the wings, and adds a Gross Height/Pressure Altitude Conversion Chart. Advance Amendment Bulletin 13 introduces procedures for placing the propeller condition levers in the Flight position during all ground maneuvering. Operate the airplane according to the procedures in General Amendment G12 and Advance Amendment Bulletin 13.

Note 1: This may be done by inserting copies of General Amendment G12 and Advance Amendment Bulletin 13 into the FM. When General Amendment G12 and Advance Amendment Bulletin 13 have been included in general revisions of the FM, the general revisions may be inserted in the FM, provided the relevant information in the general revision is identical to that in General Amendment G12 and Advance Amendment Bulletin 13.

New Requirements of This AD

Actions

(h) Unless already done, do the following actions.

(1) Within 6 months after the effective date of this AD, install a Propeller Speed Warning System (Modification JM41674), in accordance with Section 2 of BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Issue 7, dated August 17, 2009. Before further flight after modification, do the actions required in paragraphs (h)(1)(i) and (h)(1)(ii) of this AD.

(i) Remove the placard that was installed as required by paragraph (g)(1) of this AD.

(ii) Remove BAE Jetstream Series 4100 Advance Amendment Bulletin 13, approved April 4, 2007, from the FM.

(2) Within 6 months after the effective date of this AD, revise the BAE Jetstream Series 4100 FM to include information on introducing a propeller speed warning system, on airplanes that have Modification JM41674, using a method approved by the Manager, International Branch, ANM 116, Transport Airplane Directorate, FAA, or EASA (or its delegated agent).

Note 2: Guidance on revising the BAE Jetstream Series 4100 FM, as required by paragraph (h)(2) of this AD, can be found in BAE Jetstream Series 4100 Particular Amendment 111, approved December 2008.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(i) 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: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; 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. The AMOC approval letter must specifically reference this AD.

(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 (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(j) Refer to MCAI European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0038, dated February 18, 2009; and the service information identified in Table 1 of this AD; for related information.

Table 1 – Service information

Service Information	Date
BAE Jetstream Series 4100 Advance Amendment Bulletin 13 to the Jetstream Series 4100 Flight Manual	April 4, 2007
BAE Jetstream Series 4100 General Amendment G12 to the Jetstream Series 4100 Flight Manual	January 2007
BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7	August 17, 2009
BAE Systems (Operations) Limited Service Bulletin J41-11-027	March 29, 2007

Material Incorporated by Reference

(k) You must use the service information contained in Table 2 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 2 – All material incorporated by reference

Service Information	Date
BAE Jetstream Series 4100 Advance Amendment Bulletin 13 to the Jetstream Series 4100 Flight Manual	April 4, 2007
BAE Jetstream Series 4100 General Amendment G12 to the Jetstream Series 4100 Flight Manual	January 2007
BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7	August 17, 2009
BAE Systems (Operations) Limited Service Bulletin J41-11-027	March 29, 2007

BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7, contains the following effective pages:

List of Effective Pages

Page Title/Description	Page Number(s)	Issue Number	Date Shown on Page(s)
Section 2, Installer Instructions	15–50	7	August 17, 2009

(Section 1 of this document (pages 1-14) is not included.)

(1) The Director of the Federal Register approved the incorporation by reference of BAE Systems (Operations) Limited Aircraft Change Information Bulletin J41-61-014, Section 2, Issue 7, dated August 17, 2009, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of the service information contained in Table 3 of this AD on July 24, 2008 (73 FR 34847, June 19, 2008).

Table 3 – Material previously incorporated by reference

Service Information	Date
BAE Jetstream Series 4100 Advance Amendment Bulletin 13 to the Jetstream Series 4100 Flight Manual	April 4, 2007
BAE Jetstream Series 4100 General Amendment G12 to the Jetstream Series 4100 Flight Manual	January 2007
BAE Systems (Operations) Limited Service Bulletin J41-11-027	March 29, 2007

(3) For service information identified in this AD, contact BAE Systems (Operations) Limited, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; e-mail RApublications@baesystems.com; Internet <http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>.

(4) 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.

(5) 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 September 23, 2010.

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