



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0332; Directorate Identifier 2011-NM-130-AD]

RIN 2120-AA64

Airworthiness Directives; BAE SYSTEMS (OPERATIONS) LIMITED Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain BAE SYSTEMS (OPERATIONS) LIMITED Model BAe 146 and Model Avro 146-RJ airplanes. This proposed AD was prompted by reports of cracking and surface anomalies of the fuselage skin at the water trap/air drier unit of the forward discharge valve due to corrosion. This proposed AD would require repetitive detailed inspections for bulging, surface anomalies, and cracking of the fuselage skin adjacent to the discharge valves, repair if necessary, and application of additional sealant in the affected area if necessary. We are proposing this AD to detect and correct bulging, surface anomalies, and cracking that could propagate towards the forward discharge valve outlet and result in the failure of the fuselage skin, leading to a possible sudden loss of cabin pressure.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 W12-140, 1200 New Jersey Avenue S.E., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed 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>. You may review copies of the referenced 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.

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 proposed 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: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue S.W., Renton, Washington 98057-3356; phone 425-227-1175; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0332; Directorate Identifier 2011-NM-130-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on 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 proposed AD.

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 2011-0099, dated May 26, 2011 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

An operator has reported the cracking and surface anomalies (bulges and/or dents) of the fuselage skin at the water trap/air drier unit of the forward discharge valve located between Frames 22 and 23 and between stringers 22 and 23.

Further investigation established that these surface anomalies (bulges and/or dents) were due to corrosion beneath the water trap/air drier unit that has resulted in cracking of the fuselage skin. A crack at the subject location could propagate towards the forward discharge valve outlet and result in the failure of the fuselage skin leading to a possible sudden loss of cabin pressure.

For the reasons described above, this [EASA] AD mandates an initial and repetitive [detailed] inspections [for bulging, surface anomalies, and cracking] of the fuselage skin adjacent to the front and rear discharge valves, the accomplishment of the associated correctives actions [repair] if applicable and the application of an additional sealant in the affected area.

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

Relevant Service Information

BAE SYSTEMS (OPERATIONS) LIMITED has issued Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010; Subject 53-00-00, “Fuselage, General Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200,

Revision 66, dated October 15, 2011; and Subject 53-00-00, “Fuselage, General Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated October 15, 2011. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA’s Determination and Requirements of This Proposed 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 proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 1 product of U.S. registry. We also estimate that it would take about 8 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$680, or \$680 per product. We have received no definitive data that would enable us to provide cost estimates for the on-condition (repair) actions specified in this proposed 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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and
4. 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 proposed 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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

BAE SYSTEMS (OPERATIONS) LIMITED: Docket No. FAA-2012-0332;

Directorate Identifier 2011-NM-130-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to BAE SYSTEMS (OPERATIONS) LIMITED Model BAe 146-100A, -200A airplanes, and -300A and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes, certificated in any category; all models, and all serial numbers except airplanes that have incorporated auto-pressurization modification HCM50259A during production.

(d) Subject

Air Transport Association (ATA) of America Code 21: Air Conditioning.

(e) Reason

This AD was prompted by reports of cracking and surface anomalies of the fuselage skin at the water trap/air drier unit of the forward discharge valve due to corrosion. We are issuing this AD to detect and correct bulging, surface anomalies, and cracking that could propagate towards the forward discharge valve outlet and result in the failure of the fuselage skin, leading to a possible sudden loss of cabin pressure.

(f) Compliance

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

(g) Detailed Inspection of External Fuselage Skin

Within 12 months after the effective date of this AD, do a detailed inspection to check for bulging, surface anomalies, and cracking of the fuselage skin adjacent to the discharge valve outlets (one frame fore and aft, one stringer above and below), in accordance with the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS)

LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010. Repeat the inspection thereafter at intervals not to exceed 24 months.

(1) If any bulging, surface anomalies, or cracking of the fuselage skin is found to be within the criteria defined in Subject 53-00-00, "Fuselage, General Description," of Chapter 53, "Fuselage," of the BAE SYSTEMS BAe 146 Series /AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 66, dated October 15, 2011 (for Model 146-100A and -200A, and Avro 146-RJ70A and 146-RJ85A airplanes); or Subject 53-00-00, "Fuselage, General Description," of Chapter 53, "Fuselage," of the BAe SYSTEMS BAE 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated October 15, 2011 (for Model 146-300A and Avro 146-RJ100A airplanes): Before further flight, repair the damage, in accordance with the Accomplishment Instructions specified in BAE SYSTEMS (Operations) Limited Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010.

(2) If any bulging, surface anomalies, or cracking of the fuselage skin is found exceeding the criteria as specified by Subject 53-00-00, "Fuselage, General Description," of Chapter 53, "Fuselage," of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 66, dated October 15, 2011 (for Model 146-100A and -200A, and Avro 146-RJ70A and 146-RJ85A airplanes); or Subject 53-00-00, "Fuselage, General Description," of Chapter 53, "Fuselage," of the BAE SYSTEMS BAE 146/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated

October 15, 2011 (for Model 146-300A and Avro 146-RJ100A airplanes): Before further flight, repair the condition according to a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, or EASA (or its delegated agent).

(h) Application of Sealant

Within 24 months after the effective date of this AD, unless a repair has already been accomplished in accordance with paragraph (g) of this AD: Apply additional PR1422A-2 or PR1764-2 edge sealant between the water trap/air drier and the fuselage skin, in accordance with the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010. Application of additional sealant does not constitute terminating actions for the repetitive detailed inspection required by paragraph (g) of this AD. Accomplishment of a repair as required by paragraph (g) of this AD terminates the repetitive inspection requirements of this AD.

(i) Credit for Previous Actions

(1) This paragraph provides credit for inspections and sealant applications required by paragraphs (g) and (h) of this AD, if those actions were performed using the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, dated June 7, 2010.

(2) This paragraph provides credit for using criteria defined in the following subject of the applicable structural repair manual, as required by paragraphs (g)(1) and (g)(2) of this AD, if that criteria was used before the effective date of this AD using

Subject 53-00-00, “Fuselage, General Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 65, dated September 15, 2010 (for Model 146-100A and -200A, and Avro 146-RJ70A and 146-RJ85A airplanes); or Subject 53-00-00, “Fuselage, General Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 43, dated September 15, 2010 (for Model 146-300A and Avro 146-RJ100A airplanes).

(j) Other FAA AD Provisions

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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue S.W., Renton, Washington 98057-3356; phone 425-227-1175; fax 425-227-1149. Information may be e-mailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding 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.

(k) Related Information

Refer to MCAI EASA Airworthiness Directive 2011-0099, dated May 26, 2011, and the service information identified in paragraphs (k)(1), (k)(2), and (k)(3) of this AD, for related information.

(1) BAE SYSTEMS (OPERATIONS) LIMITED Inspection Service Bulletin ISB.21-162, Revision 1, dated September 16, 2010.

(2) Subject 53-00-00, “Fuselage, General Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 100-200, Revision 66, dated October 15, 2011.

(3) Subject 53-00-00, “Fuselage, General Description,” of Chapter 53, “Fuselage,” of the BAE SYSTEMS BAe 146 Series/AVRO 146-RJ Series Structural Repair Manual for Series 300, Revision 44, dated October 15, 2011. Issued in Renton, Washington, on March 28, 2012.

Kalene C. Yanamura,

Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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