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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0123 Directorate Identifier 2010-CE-004-AD; Amendment 39-16267; AD 2010-09-02]

RIN 2120-AA64

Airworthiness Directives; British Aerospace Regional Aircraft Model Jetstream Series 3101 and Jetstream Model 3201 Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued 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:

BAE Systems have received three reports of uncommanded flap extensions affecting different Jetstream 31 aeroplanes. In one instance, the aeroplane exceeded the airspeed limit allowed for the uncommanded flap configuration, resulting in damage to the wing trailing edge.

Following investigation, it was considered that a loss of electrical signal to the 'up' solenoid of the flap selector valve had occurred and, combined with the normal internal leakage in the hydraulic system, resulted in hydraulic pressure being supplied to the 'down' side of the flap hydraulic jack. The loss of signal could have been intermittent, and the evidence strongly implicated oxide debris contamination of the flap selector switch contacts.

This condition, if not corrected, could lead to further cases of damage to the aeroplane due to airspeed limit exceedance, possibly resulting in asymmetric flap deployment, which could lead to loss of control of the aeroplane.

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective June 3, 2010.

On June 3, 2010, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Taylor Martin, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4138; fax: (816) 329-4090.

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 February 19, 2010 (75 FR 7405). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

BAE Systems have received three reports of uncommanded flap extensions affecting different Jetstream 31 aeroplanes. In one instance, the aeroplane exceeded the airspeed limit allowed for the uncommanded flap configuration, resulting in damage to the wing trailing edge.

Following investigation, it was considered that a loss of electrical signal to the 'up' solenoid of the flap selector valve had occurred and, combined with the normal internal leakage in the hydraulic system, resulted in hydraulic pressure being supplied to the 'down' side of the flap hydraulic jack. The loss of signal could have been intermittent, and the evidence strongly implicated oxide debris contamination of the flap selector switch contacts.

This condition, if not corrected, could lead to further cases of damage to the aeroplane due to airspeed limit exceedance, possibly resulting in asymmetric flap deployment, which could lead to loss of control of the aeroplane.

To address this unsafe condition, BAE Systems have developed a modification for the wiring to the flap selector switch, connecting a different (unused) pair of contacts to provide a duplicated signal path within the switch.

For the reasons described above, this AD requires the modification of the flap selector switch wiring.

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.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

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 FAA policies. Any such differences are highlighted in a Note within the AD.

Costs of Compliance

We estimate that this AD will affect 190 products of U.S. registry. We also estimate that it will take about 5 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$50 per product.

Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$90,250 or \$475 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 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 Management Facility 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 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 adding the following new AD:



2010-09-02 British Aerospace Regional Aircraft: Amendment 39-16267; Docket No. FAA-2010-0123; Directorate Identifier 2010-CE-004-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective June 3, 2010.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Jetstream Series 3101 and Jetstream Model 3201 airplanes, all serial numbers, certificated in any category.

Subject

- (d) Air Transport Association of America (ATA) Code 27: Flight Controls.

Reason

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

BAE Systems have received three reports of uncommanded flap extensions affecting different Jetstream 31 aeroplanes. In one instance, the aeroplane exceeded the airspeed limit allowed for the uncommanded flap configuration, resulting in damage to the wing trailing edge.

Following investigation, it was considered that a loss of electrical signal to the "up" solenoid of the flap selector valve had occurred and, combined with the normal internal leakage in the hydraulic system, resulted in hydraulic pressure being supplied to the "down" side of the flap hydraulic jack. The loss of signal could have been intermittent, and the evidence strongly implicated oxide debris contamination of the flap selector switch contacts.

This condition, if not corrected, could lead to further cases of damage to the aeroplane due to airspeed limit exceedance, possibly resulting in asymmetric flap deployment, which could lead to loss of control of the aeroplane.

To address this unsafe condition, BAE Systems have developed a modification for the wiring to the flap selector switch, connecting a different (unused) pair of contacts to provide a duplicated signal path within the switch.

For the reasons described above, this AD requires the modification of the flap selector switch wiring.

Actions and Compliance

- (f) Unless already done, within 6 months after June 3, 2010 (the effective date of this AD), install modification JM7861, Introduction of a Wire Link to Flap Selector Switch, following the

accomplishment instructions of BAE Systems British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 27-JM7861, dated February 12, 2008.

FAA AD Differences

Note: 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, Standards Office, 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: Taylor Martin, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4138; fax: (816) 329-4090. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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

(h) Refer to MCAI European Aviation Safety Agency AD No.: 2009-0267, dated December 17, 2009; and BAE Systems British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 27-JM7861, dated February 12, 2008, for related information.

Material Incorporated by Reference

(i) You must use BAE Systems British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 27-JM7861, dated February 12, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

(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 (Operations) Ltd, 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.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD 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 Kansas City, Missouri, on April 12, 2010.

John R. Colomy,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.
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