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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0285; Project Identifier MCAI–2021–01448–A; Amendment 39–22066; AD 2022–11–16]

RIN 2120–AA64

Airworthiness Directives; British Aerospace (Operations) Limited and British Aerospace Regional Aircraft Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all British Aerospace (Operations) Limited Model Jetstream Model 3101 airplanes and British Aerospace Regional Aircraft Model Jetstream Model 3201 airplanes. This AD was prompted by 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 identifies the unsafe condition as stress corrosion cracking of the primary flight control cable terminals. This AD requires repetitively inspecting the turnbuckle type control cable terminals in the rudder and elevator primary flight control circuits for corrosion, pitting, and cracking and, depending on the inspection results, replacing an affected cable assembly. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective July 13, 2022.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of July 13, 2022.

ADDRESSES: For service information identified in this final rule, contact BAE Systems (Operations) Ltd., Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; phone: +44 3300 488727; fax: +44 1292 675704; email: *RApublications@baesystems.com;* website: *https://www.baesystems.com/businesses/regionalaircraft/.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222–5110. It is also available at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0285.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0285; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the MCAI, any comments received, and other information. The address for Docket Operations is 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: Doug Rudolph, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329–4059; email: *doug.rudolph@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all British Aerospace (Operations) Limited Model Jetstream Model 3101 and British Aerospace Regional Aircraft Model Jetstream Model 3201 airplanes. The NPRM published in the **Federal Register** on March 22, 2022 (87 FR 16118). The NPRM was prompted by MCAI originated by the Civil Aviation Authority (CAA), which is the aviation authority for the United Kingdom. CAA has issued AD G–2021–0017, dated December 21, 2021 (referred to after this as ''the MCAI''), to correct an unsafe condition on all BAE Systems (Operations) Limited Model Jetstream Series 3100 and Series 3200 airplanes. The MCAI states:

> There were reports of cable terminal failures on a variety of civil aircraft types (which did not include the Jetstream 3100 & 3200 series aircraft). These reports were initially made in the USA, Australia & New Zealand. Subsequent investigations identified that the failed terminals were made from the same material specification; MS21260, which calls up materials SAE303Se or SAE304 stainless steel. It is understood that these corrosion resistant steels are susceptible to Stress Corrosion Cracking (SCC) in service when subject to contamination.
>
> BAE Systems (Operations) Ltd recognises that SAE 303Se and 304 stainless steels are used in the primary flight control cable terminal of the Jetstream 3100 & 3200 series aircraft.
>
> The Jetstream 3100 & 3200 series aircraft feature a single path for the elevator and rudder primary control cable circuits. For the elevator circuit, a potential unsafe condition exists if an elevator cable terminal fails at any point in the primary elevator system aft of the dual flight controls in the cockpit, because this would result in a loss of primary elevator control. This is only considered unsafe during take-off after V1, where sufficient runway may not be available to brake the aircraft, or during an approach where there is insufficient altitude to recover control of the aircraft using the aircraft's elevator trim controls.
>
> For the rudder circuit, a potential unsafe condition exists if a rudder cable terminal fails at any point in the primary rudder system aft of the dual flight controls in the cockpit, because this would result in a loss of primary rudder control. This is only considered unsafe when landing in strong crosswinds or after an engine failure during take-off and initial climb, where vertical axis (yaw) control cannot be maintained using rudder trim or asymmetrical power.

You may examine the MCAI in the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0285.

In the NPRM, the FAA proposed to require repetitively inspecting the turnbuckle type control cable terminals in the rudder and elevator primary flight control circuits for corrosion, pitting, and cracking and, depending on the inspection results, replacing an affected cable assembly. The FAA is issuing this AD to address the unsafe condition on these products.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 27–JA181040, Original Issue, dated January 17, 2019. This service information specifies procedures for repetitively inspecting all threaded turnbuckle type control cable end terminals on certain part-numbered rudder and elevator primary flight control circuits for signs of corrosion, pitting, and cracking on the terminal fitting, and specifies replacing an affected cable assembly when the inspection results require it. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Differences Between This AD and the MCAI

The MCAI and service information apply to Model Jetstream Series 3100 and Jetstream Series 3200 airplanes, which are identified on the FAA type certificates as Jetstream Model 3101 airplanes and Jetstream Model 3201 airplanes, respectively.

Although the service information specifies reporting inspection results to the manufacturer, this AD does not require that action.

Costs of Compliance

The FAA estimates that this AD affects 18 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per airplane	Cost on U.S. operators
Inspection	4 work-hours × $85 per hour = $340.	Not applicable ...	$340 per inspection cycle	$6,120 per inspection cycle.

The FAA estimates the following costs to replace a cable assembly based on the results of the inspection. The FAA has no way of determining the number of airplanes that might need this action:

ON-CONDITION COSTS

Action	Labor cost	Parts cost	Cost per airplane
Replacement of cable assembly	10 work-hours × $85 per hour = $850	$5,000	$5,850

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.

The FAA is 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

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) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

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 airworthiness directive:

2022–11–16 British Aerospace (Operations) Limited and British Aerospace Regional Aircraft: Amendment 39–22066; Docket No. FAA–2022–0285; Project Identifier MCAI–2021–01448–A.

(a) Effective Date

This airworthiness directive (AD) is effective July 13, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to British Aerospace (Operations) Limited Model Jetstream Model 3101 airplanes and British Aerospace Regional Aircraft Model Jetstream Model 3201 airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 2720, Rudder Control System; and 2730, Elevator Control System.

(e) Unsafe Condition

This AD was prompted by 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 identifies the unsafe condition as stress corrosion cracking of the primary flight control cable terminal. The FAA is issuing this AD to detect and correct corrosion, pitting, or cracking in the primary flight control cable terminals. The unsafe condition, if not addressed, could result in failure of the primary flight control cable terminal and loss of airplane control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Before any primary rudder or primary elevator flight control circuit cable accumulates 16 years since first installation on an airplane or within 12 months after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 24 months, inspect all threaded turnbuckle type control cable terminals for signs of corrosion, pitting, and cracking by following paragraph (2) in Section 2.B. Part 1 and Section 2.B. Part 2 of the Accomplishment Instructions in British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 27–JA181040, Original Issue, dated January 17, 2019 (SB 27–JA181040). If the age of any primary rudder or primary elevator flight control circuit cable is unknown, do the inspection within 12 months after the effective date of this AD and thereafter at intervals not to exceed 24 months.

(2) If, during any inspection required by paragraph (g)(1) of this AD, there is pitting or cracking or corrosion that exceeds minimum damage limits, before further flight, replace the affected cable assembly with a new (zero hours time-in-service) cable assembly.

(3) Replacing a cable assembly does not terminate the inspections required by this AD. After replacing a cable assembly, do the inspection in paragraph (g)(1) of this AD before the cable assembly accumulates 15 years since first installation on an airplane and thereafter at intervals not to exceed 24 months.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, 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 manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD and email to: *9-AVS-AIR-730-AMOC@faa.gov.*

(2) 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.

(i) Related Information

(1) For more information about this AD, contact Doug Rudolph, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329–4059; email: *doug.rudolph@faa.gov.*

(2) Refer to Civil Aviation Authority (CAA) AD G–2021–0017, dated December 21, 2021, for related information. You may examine the CAA AD in the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0285.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 27–JA181040, Original Issue, dated January 17, 2019.

(ii) [Reserved]

(3) For service information identified in this AD, contact BAE Systems (Operations) Ltd., Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; phone: +44 3300 488727; fax: +44 1292 675704; email: *RApublications@baesystems.com;* website: *https://www.baesystems.com/businesses/regionalaircraft/.*

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this 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, email: *fr.inspection@nara.gov,* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on May 24, 2022.

Ross Landes,

Deputy Director for Regulatory Operations, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–12182 Filed 6–7–22; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0150; Project Identifier MCAI–2021–00839–E; Amendment 39–22065; AD 2022–11–15]

RIN 2120–AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG (Type Certificate Previously Held by Rolls-Royce plc) Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Rolls-Royce Deutschland Ltd & Co KG (RRD) Trent 7000–72 and Trent 7000–72C model turbofan engines. This AD was prompted by in-service experience showing that certain high-pressure turbine (HPT) blades may prematurely deteriorate to an unacceptable condition when managed in accordance with the inspection intervals in the Time Limits Manual (TLM). This AD requires initial and repetitive on-wing borescope inspections (BSIs) of the HPT blades to detect axial cracking and, depending on the results of the inspections, replacement of the HPT blade set, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference (IBR). The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective July 13, 2022.

The Director of the Federal Register approved the IBR of a certain publication listed in this AD as of July 13, 2022.

ADDRESSES: For material incorporated by reference in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: *ADs@easa.europa.eu.* You may find this material on the EASA website at *https://ad.easa.europa.eu.* You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this