[Federal Register Volume 82, Number 179 (Monday, September 18, 2017)]
[Rules and Regulations]
[Pages 43457-43459]
From the Federal Register Online via the Government Publishing Office [www.gpo.gov]
[FR Doc No: 2017-19658]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-8177; Product Identifier 2015-NM-129-AD; Amendment 39-19041; AD 2017-19-11]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by a determination that a certain task in the aircraft maintenance manual (AMM) will not accomplish the intent of a candidate certification maintenance requirement (CCMR) for detecting dormant failures of the pitch feel (PF) and rudder travel limiter actuator (RTLA) back-up modules. This AD requires doing an operational test of the flight control unit (FCU) back-up modules, and repair if necessary. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective October 23, 2017.

ADDRESSES:

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-8177; 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 this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket 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: Assata Dessaline, Aerospace Engineer, Avionics and Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7301; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The NPRM published in the Federal Register on July 15, 2016 (81 FR 45997) ("the NPRM"). The NPRM was prompted by a determination that a certain task in the AMM will not accomplish the intent of a CCMR. This CCMR task tests the PF and RTLA back-up modules in the FCU to detect dormant failures. The NPRM proposed to require doing an operational test of the FCU back-up modules, and repair if necessary. We are issuing this AD to detect and correct a dormant failure of both FCU back-up modules. This condition, in combination with other failures in the FCU, may result in the inability to maintain the minimum control requirements for the PF and RTLA, which could create hazardous flight control inputs during flight.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2015-06R1, dated April 22, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The MCAI states:

> It was discovered that the existing instruction in the Aircraft Maintenance Manual (AMM) Task 27-61-05-710-801 will not accomplish the intent of the * * * [Canadian Certification Maintenance Requirement (CCMR)] task number 27-61-05-201. This * * * [CCMR] task was required to test the Pitch Feel (PF) and Rudder Travel Limiter Actuator (RTLA) back-up modules in the Flight Control Unit (FCU) to detect dormant failures. If not detected, a dormant failure of both FCU back-up modules, in combination with other failures in the FCU, may result in the inability to maintain the Minimum Control Requirements for the PF and RTLA, which could create hazardous flight control inputs during flight.
>
> The original issue of this [Canadian] AD mandated the performance of an operational test of the FCU back-up modules using the proper AMM task instructions [and repair if necessary].
>
> Revision 1 of this [Canadian] AD is to correct the model number designation in the Applicability section.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-8177.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Requests To Clarify Task Type

Bombardier, Inc. (Bombardier), and NetJets Aviation Inc. (NetJets), requested that we clarify that task 27-61-05-201 is not a CMR task. Bombardier stated that the task was misidentified as a certification maintenance requirement (CMR) task during the investigation into the cause of the identified unsafe condition. Bombardier further explained that task 27-61-05-201 is a candidate CMR, or CCMR.

We agree that the task type should be clarified. We have confirmed that task 27-61-05-201 is a CCMR task. Therefore, we have revised references to the task throughout this AD accordingly.

Requests To Reference Revised Service Information

Bombardier, Kacalp Flight Operation, and NetJets, requested that we revise the NPRM to reference revised service information. The commenters explained that the temporary revisions (TRs) referenced in the NPRM have been incorporated into the AMM, as have several subsequent revisions. The commenters asserted that the referenced TRs and certain subsequent AMM revisions are not available to operators.

We partially agree with the commenters' requests. We have confirmed that the TRs and subsequent AMM revisions referenced in the NPRM are no longer available. Therefore, we agree that this final rule needs to be revised. However, given the number of subsequent AMM revisions that have been issued for each of the AMMs since the NPRM was published, and the difficulties in obtaining the necessary material, we do not agree to reference subsequent AMM revisions in this final rule. Instead, we have revised paragraph (g) of this AD to specify doing the required actions in accordance with a method approved by the Manager, New York ACO Branch, FAA. We have also removed the content provided in paragraphs (h) and (i) of the proposed AD from this AD. We have redesignated subsequent paragraphs accordingly.

Request To Revise the Compliance Time for the FCU Operational Test

NetJets requested that we revise the proposed compliance time for FCUs with less than 3,000 total flight hours in paragraph (g)(3) of the proposed AD to the later of the following:

- Prior to 3,000 total flight hours on the FCU; or
- Within 15 months or 700 flight hours after the effective date of the AD, whichever occurs first.

NetJets stated that, for an FCU with 2,999 total flight hours on the effective date of the AD, the proposed AD would require compliance prior to further flight. NetJets pointed out that no justification was given for the more restrictive compliance time. Further, NetJets explained that paragraph (g)(1) of the proposed AD has a grace period of 15 months or 700 hours flight hours, whichever occurs first for an FCU that has accumulated 3,000 total flight hours or more.

We partially agree with the commenter's request. We agree that a grace period is needed for FCUs having accumulated less than 3,000 total flight hours as of the effective date of this AD, on which an operational test has not been completed. We do not agree that the commenter's proposed grace period is adequate to address the unsafe condition. However, we have revised the compliance time in paragraph (g)(3) of this AD to provide a grace period of within 30 days after the effective date of this AD.

Request To Correct Typographical Errors in Paragraph (h)(5) of the Proposed AD

Bombardier requested that we correct a typographical error in paragraph (h)(5) of the proposed AD.

We agree that there is a typographical error in paragraph (h)(5) of the proposed AD. However, as explained previously, we have removed the content of paragraph (h) of the proposed AD from this AD. Therefore, no change to this AD is necessary in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Costs of Compliance

We estimate that this AD affects 76 airplanes of U.S. registry. We also estimate that it will take about 3 work-hours per product to comply with the basic requirements of this AD. The average labor rate is $85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be $19,380, or $255 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

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 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.

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 airworthiness directive (AD):

2017-19-11 Bombardier, Inc.: Amendment 39-19041; Docket No. FAA-2016-8177; Product Identifier 2015-NM-129-AD.

(a) Effective Date

This AD is effective October 23, 2017.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9002 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Reason

This AD was prompted by a determination that a certain task in the aircraft maintenance manual (AMM) will not accomplish the intent of a candidate certification maintenance requirement (CCMR). This CCMR task tests the pitch feel (PF) and rudder travel limiter actuator (RTLA) back-up modules in the flight control unit (FCU) to detect dormant failures. We are issuing this AD to detect and correct a dormant failure of both FCU back-up modules. This condition, in combination with other failures in the FCU, may result in the inability to maintain the minimum control requirements for the PF and RTLA, which could create hazardous flight control inputs during flight.

(f) Compliance

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

(g) FCU Operational Test

(1) For airplanes with an FCU that has accumulated 3,000 total flight hours or more as of the effective date of this AD: Within 15 months or 700 flight hours, whichever occurs first, after the effective date of this AD, do an operational test of the FCU back-up modules, in accordance with a method approved by the Manager, New York ACO Branch, FAA.

(2) For airplanes with an FCU that has accumulated less than 3,000 total flight hours as of the effective date of this AD, and on which an operational test has been accomplished as specified in AMM task 27-61-05-710-801: Within 15 months or 700 flight hours, whichever occurs first, after the

effective date of this AD, do an operational test of the FCU back-up modules, in accordance with a method approved by the Manager, New York ACO Branch, FAA.

(3) For airplanes with an FCU that has accumulated less than 3,000 total flight hours as of the effective date of this AD, and on which an operational test has not been accomplished as specified in AMM task 27-61-05-710-801: Before the FCU accumulates 3,000 total flight hours or within 30 days after the effective date of this AD, whichever occurs later, perform an operational test of the FCU back-up modules, in accordance with a method approved by the Manager, New York ACO Branch, FAA.

(h) Corrective Action

If any FCU fails any operational test required by this AD: Before further flight, repair using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO).

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO 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 certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. 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) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2015-06R1, dated April 22, 2015, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-8177.

(2) For more information about this AD, contact Assata Dessaline, Aerospace Engineer, Avionics and Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7301; fax 516-794-5531.

(k) Material Incorporated by Reference

None.

Issued in Renton, Washington, on September 7, 2017.
Jeffrey E. Duven,
Director, System Oversight Division,
Aircraft Certification Service.