Rules and Regulations

Federal Register

Vol. 75, No. 82

Thursday, April 29, 2010

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2010–0431; Directorate Identifier 2010–NM–072–AD; Amendment 39–16272; AD 2010–09–07]

RIN 2120–AA64

Airworthiness Directives; Bombardier, Inc. Model DHC–8–400 Series Airplanes

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

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new 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:

* * * 1. A potential freezing of the AOA [angle of attack] Vane Resolver * * * may restrict the dynamic behavior (lag) of the vane and could lead to a potential seize-up condition at lower temperatures. This condition, if not corrected, may provide inaccurate AOA data to the Stall Protection System (SPS).

2. As a result of ageing, the AOA vane heating element could degrade to a point where there is insufficient heat to prevent ice build-up on the AOA vanes. The ice build-up may lead to a change in the aerodynamic properties of the AOA vane and, under certain conditions, send inaccurate information to the SPS. This ageing condition cannot be detected by the aircraft AOA vane heater current monitor.

These conditions, if not corrected, could result in inaccurate AOA data provided to the SPS and could lead to a change in the aerodynamic properties of the AOA vane and reduced ability of the flight crew to maintain safe flight and landing of the airplane. This AD requires actions that are intended to address the unsafe condition described in the MCAI.

DATES: This AD becomes effective May 14, 2010.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of May 14, 2010.

We must receive comments on this AD by June 14, 2010.

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 W12–40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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 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: Joseph Licata, Aerospace Engineer, Avionics and Flight Test Branch, ANE–172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228–7361; fax (516) 794–5531.

SUPPLEMENTARY INFORMATION:

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF–2010–05, dated February 2, 2010 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

Although there have been no in-service reported incidents related to AOA [angle of attack] failures on the DHC–8 Series 400 aeroplanes, two separate issues have been identified that would affect proper operation of the AOA vane, P/N [part number] C16177AC. These issues are:

1. A potential freezing of the AOA Vane Resolver, which may restrict the dynamic behavior (lag) of the vane and could lead to a potential seize-up condition at lower temperatures. This condition, if not corrected, may provide inaccurate AOA data to the Stall Protection System (SPS).

2. As a result of ageing, the AOA vane heating element could degrade to a point where there is insufficient heat to prevent ice build-up on the AOA vanes. The ice build-up may lead to a change in the aerodynamic properties of the AOA vane and, under certain conditions, send inaccurate information to the SPS. This ageing condition cannot be detected by the aircraft AOA vane heater current monitor.

This directive mandates replacement of the vanes equipped with suspect resolvers and a periodic inspection of the in-rush current to verify the AOA vane heating capability.

These conditions, if not corrected, could result in inaccurate AOA data provided to the SPS and could lead to a change in the aerodynamic properties of the AOA vane and reduced ability of the flight crew to maintain safe flight and landing of the airplane. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Bombardier has issued Alert Service Bulletin A84–27–46, dated October 20, 2009; and Alert Service Bulletin A84–27–51, dated December 22, 2009. 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 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 issuing this AD because we evaluated all pertinent information and determined the unsafe

condition exists and is likely to exist or develop on other products of the same type design.

Differences Between the 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.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because potential freezing of the vane resolver of the angle of attack could restrict the dynamic behavior (lag) of the vane and could lead to a potential seize-up condition at lower temperatures. As a result of aging, the vane heating element of the AOA could degrade to a point where there is insufficient heat to prevent ice buildup on the AOA vanes. These conditions, if not corrected, could result in inaccurate AOA data provided to the SPS and could lead to a change in the aerodynamic properties of the AOA vane and reduced ability of the flight crew to maintain safe flight and landing of the airplane. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA–2010–0431; Directorate Identifier 2010–NM–072–AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of 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 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 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.

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:

2010–09–07 Bombardier, Inc.: Amendment 39–16272. Docket No. FAA–2010–0431; Directorate Identifier 2010–NM–072–AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective May 14, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier, Inc. Model DHC–8–400, –401, and –402 airplanes; certificated in any category, that are equipped with Thales angle of attack (AOA) vanes having part number (P/N) C16177AC.

Subject

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

Reason

(e) The mandatory continued airworthiness information (MCAI) states:

Although there have been no in-service reported incidents related to AOA failures on the DHC–8 Series 400 aeroplanes, two separate issues have been identified that would affect proper operation of the AOA vane, P/N C16177AC. These issues are:

1. A potential freezing of the AOA Vane Resolver, which may restrict the dynamic behavior (lag) of the vane and could lead to a potential seize-up condition at lower temperatures. This condition, if not corrected, may provide inaccurate AOA data to the Stall Protection System (SPS).

2. As a result of ageing, the AOA vane heating element could degrade to a point where there is insufficient heat to prevent ice build-up on the AOA vanes. The ice build-up may lead to a change in the aerodynamic properties of the AOA vane and, under certain conditions, send inaccurate information to the SPS. This ageing condition cannot be detected by the aircraft AOA vane heater current monitor. This directive mandates replacement of the vanes equipped with suspect resolvers and a periodic inspection of the in-rush current to verify the AOA vane heating capability.

These conditions, if not corrected, could result in inaccurate AOA data provided to the SPS and could lead to a change in the aerodynamic properties of the AOA vane and

reduced ability of the flight crew to maintain safe flight and landing 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.

Actions

(g) Within 250 flight hours after the effective date of this AD: Do an inspection to determine the serial number of the AOA sensors installed on the airplane, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009. A review of airplane maintenance records is acceptable in lieu of this inspection if the serial number of the AOA sensors can be conclusively determined from that review.

(1) If neither serial number is specified in paragraph 1.A., Table 1, of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009, do the actions required by paragraph (h) of this AD.

(2) If the serial numbers of both AOA sensors are specified in paragraph 1.A., Table 1, of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009, and both serial numbers have suffix "B," do the actions required by paragraph (h) of this AD.

(3) If the serial numbers of both AOA sensors are specified in paragraph 1.A., Table 1, of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009, do the actions required by either paragraph (g)(3)(i) or (g)(3)(ii) of this AD.

(i) Before further flight, replace the AOA sensors with new or serviceable sensors, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009.

(ii) Before further flight, replace one of the two AOA sensors with a new or serviceable sensor, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009. Replace the remaining sensor with a new or serviceable sensor within 750 flight hours after the inspection required by paragraph (g) of this AD.

(4) If only one of the serial numbers of the AOA sensors is specified in paragraph 1.A., Table 1, of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009, replace that sensor with a new or serviceable sensor within 750 flight hours after the inspection required by paragraph (g) of this AD.

(h) At the applicable compliance time specified in Table 1 of this AD: Measure the inrush current of the AOA vane, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A84–27–46, dated October 20, 2009.

(1) If, during any measurement required by paragraph (h) of this AD, an AOA vane is found to have an inrush current less than or equal to 1.6 amps, before further flight, replace the vane with a new or serviceable vane, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A84–27–46, dated October 20, 2009. Repeat the measurement of the newly installed vane within 2,000 flight hours after replacement.

(2) If, during any measurement required by paragraph (h) of this AD, an AOA vane is found to have an inrush current greater than 1.6 amps, repeat the measurement of the vane at the applicable compliance time specified in Table 2 of this AD.

TABLE 1—INITIAL MEASUREMENT

For any AOA vane that, as of the effective date of this AD, has accumulated—	Do the initial inrush current measurement—
Less than 5,000 total flight hours	Before the AOA vane has accumulated 5,900 total flight hours.
5,000 or more total flight hours, but less than 6,000 total flight hours	Within 900 flight hours after the effective date of this AD, or before the AOA vane has accumulated 6,500 total flight hours, whichever occurs first.
6,000 or more total flight hours	Within 500 flight hours after the effective date of this AD.

TABLE 2—REPETITIVE MEASUREMENT INTERVALS

If the last inrush current measurement of the serviceable AOA transducer is—	Then repeat the measurement—
More than 1.60 amps, but less than or equal to 1.70 amps	Within 1,000 flight hours after the last inrush current measurement of the serviceable AOA transducer.
More than 1.70 amps	Within 2,000 flight hours after the last inrush current measurement of the serviceable AOA transducer.

(i) As of the effective date of this AD, no person may install, on any airplane, an AOA sensor having P/N C16177AC with any serial number specified in paragraph 1.A., Table 1, of Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009, unless the sensor has been inspected in accordance with this AD and unless the serial number has a suffix "B."

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows:

(1) Canadian Airworthiness Directive CF–2010–05, dated February 2, 2010, requires an inspection to determine the serial number of the AOA vanes installed on the airplane. However, for clarification, we are requiring an inspection to determine the serial number of the AOA sensors (which are part of the vane), as specified in Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009.

(2) Canadian Airworthiness Directive CF–2010–05, dated February 2, 2010, states that an airplane may be dispatched with one serviceable unit for a maximum of 1,000 flight hours. However, paragraph (g)(3)(ii) of this AD allows an airplane to be dispatched with one serviceable unit for a maximum of 750 flight hours. This difference has been coordinated with Transport Canada Civil Aviation (TCCA).

(3) Canadian Airworthiness Directive CF–2010–05, dated February 2, 2010, states that if only one of the serial numbers of the affected AOA sensors is found, replace that sensor with a new or serviceable sensor within 1,000 flight hours. However, paragraph (g)(4) of this AD requires replacement with a new or serviceable sensor within 750 flight hours. This difference has been coordinated with TCCA.

Other FAA AD Provisions

(j) The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, New York Aircraft Certification Office (ACO), 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: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516–228–7300; fax 516–794–5531. 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

(k) Refer to MCAI Canadian Airworthiness Directive CF–2010–05, dated February 2, 2010; Bombardier Alert Service Bulletin A84–27–46, dated October 20, 2009; and Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009; for related information.

Material Incorporated by Reference

(l) You must use Bombardier Alert Service Bulletin A84–27–46, dated October 20, 2009; and Bombardier Alert Service Bulletin A84–27–51, dated December 22, 2009; as applicable; 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 Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514–855–5000; fax 514–855–7401; e-mail *thd.qseries@aero.bombardier.com;* Internet *http://www.bombardier.com.*

(3) 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.

(4) 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 April 15, 2010.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2010–9520 Filed 4–28–10; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2009–1111; Directorate Identifier 2009–NM–147–AD; Amendment 39–16271; AD 2010–09–06]

RIN 2120–AA64

Airworthiness Directives; Bombardier, Inc., Model CL–600–2C10 (Regional Jet Series 700, 701 & 702), CL–600–2D15 (Regional Jet Series 705), and CL–600–2D24 (Regional Jet Series 900) 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) 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 an elevator Power Control Unit (PCU) Centering Functional Check on two CL–600–2C10 aircraft, sustained oscillations were discovered when a control rod was disconnected. These sustained oscillations could render the elevator surface inoperable and cause subsequent loss of pitch control of the aircraft.

* * * * *

Loss of pitch control could result in reduced controllability of the airplane. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective June 3, 2010.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of June 3, 2010.

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: Christopher Alfano, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE–171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228–7340; fax (516) 794–5531.

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 December 3, 2009 (74 FR 63331). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

During an elevator Power Control Unit (PCU) Centering Functional Check on two CL–600–2C10 aircraft, sustained oscillations were discovered when a control rod was disconnected. These sustained oscillations could render the elevator surface inoperable and cause subsequent loss of pitch control of the aircraft.

This directive mandates incorporation of a new centering mechanism on the elevator torque tube to prevent these sustained oscillations.

Loss of pitch control could result in reduced controllability 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 considered the comment received.

Request To Include Revised Service Information

Comair, Inc., asks that we allow the use of Revision C instead of Revision B of Bombardier Service Bulletin 670BA–27–042 for accomplishing the actions specified in paragraph (f)(1) of the NPRM. Comair, Inc., states that Bombardier has issued Bombardier Service Bulletin 670BA–27–042, Revision C, dated December 10, 2009. We referred to Bombardier Service Bulletin 670BA–27–042, Revision B, dated June 2, 2009, in paragraph (f)(1) of the NPRM as the appropriate source of service information for accomplishing the specified actions.

We agree with the commenter. Bombardier Service Bulletin 670BA–27–042, Revision C, dated December 10, 2009, makes minor updates and editorial changes; no additional work is necessary on airplanes modified in accordance with Revision B. Therefore, we have revised paragraph (f)(1) of this final rule to refer to Bombardier Service Bulletin 670BA–27–042, Revision C, dated December 10, 2009, for accomplishing the specified actions. We have also revised paragraph (f)(2) of this AD to give credit for actions done in accordance with Bombardier Service Bulletin 670BA–27–042, Revision B, dated June 2, 2009.