



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0798; Directorate Identifier 2013-NM-087-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. 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 Bombardier, Inc. Model BD-100-1A10 (Challenger 300) airplanes. This proposed AD was prompted by multiple reports of erratic electrical status indications on the push button annunciators and the engine instrument and crew alerting system. Certain of those reported incidents resulted in the airplane experiencing a momentary loss of electrical power and loss of flight displays. This proposed AD would require modification of the direct current power centers. We are proposing this AD to prevent loss of electrical power, which could result in the loss of flight displays and reduced controllability of the airplane.

**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 SE., 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 Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. 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 MCAI, 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:** Assata Dessaline, Aerospace Engineer, Avionics and Service Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7301; fax (516) 794-5531.

**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-2013-0798; Directorate Identifier 2013-NM-087-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**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2013-05, dated February 22, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

There have been multiple in-service reports of erratic electrical status indications on the Push Button Annunciators (PBA) and the Engine Instrument & Crew Alerting System (EICAS) while on-ground and during flight. Three of those reported incidents resulted in the aeroplane experiencing momentary loss of electrical power and loss of flight displays.

The investigation revealed that improper insertion of a Printed Circuit Board (PCB) in a Direct Current Power Center (DCPC) may lead to erroneous electrical status indications on the PBAs and EICAS. The erroneous indications could mislead the pilots into turning off active generators and leading to partial or complete loss of electrical power. Loss of electrical power could result in the loss of flight displays and reduced controllability of the aeroplane.

Further investigation determined that the design of the existing DCPC covers does not ensure that the PCBs will remain inserted into the motherboard of the DCPC.

This [TCCA] AD mandates the modification of each DCPC to ensure that properly closed covers will retain the PCBs within the motherboards.

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

### **Relevant Service Information**

Bombardier, Inc. has issued Bombardier Service Bulletin 100-24-23, dated November 26, 2012.

Zodiac Services has issued the following service bulletins.

- Zodiac Services Service Bulletin 320GC03Y-24-012, Revision 3, dated December 15, 2012.

- Zodiac Services Service Bulletin 970GC02Y-24-013, Revision 3, dated December 15, 2012.

- Zodiac Services Service Bulletin 975GC02Y-24-013, Revision 3, dated December 15, 2012.

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**

We estimate that this proposed AD affects 92 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Modification	7 work-hours X \$85 per hour = \$595 per modification	\$1,568	\$2,163 per modification	\$198,996 per inspection cycle

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **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 this proposed regulation:

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:

**Bombardier, Inc.:** Docket No. FAA-2013-0798; Directorate Identifier 2013-NM-087-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 Bombardier, Inc. Model BD-100-1A10 (Challenger 300) airplanes, certificated in any category, serial numbers 20003 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 24, Electrical power.

**(e) Reason**

This AD was prompted by multiple reports of erratic electrical status indications on the push button annunciators and the engine instrument and crew alerting system. Certain of those reported incidents resulted in the airplane experiencing a momentary loss of electrical power and loss of flight displays. We are issuing this AD to prevent loss of electrical power, which could result in the loss of flight displays and reduced controllability of the airplane.

**(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) Direct Current Power Centers (DCPC) Modification**

For airplanes having serial numbers 20003 through 20405 inclusive: Within 800 flight hours after the effective date of this AD or within 24 months after the effective date of this AD, whichever occurs first, modify the left-hand DCPC, right-hand DCPC, and auxiliary DCPC, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 100-24-23, dated November 26, 2012.

**(h) Parts Installation Limitation**

As of the effective date of this AD, no person may install a DCPC having a part number specified in paragraph (h)(1) through (h)(9) of this AD on any airplane, unless the DCPC serial number has a suffix "R" beside the serial number.

(1) 970GC02Y04

(2) 970GC02Y05

(3) 970GC02Y06

(4) 975GC02Y04

(5) 975GC02Y05

(6) 975GC02Y06

(7) 320GC03Y04

(8) 320GC03Y05

(9) 320GC03Y06

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, 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 ACO, send it 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, 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.

**(j) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2013-05, dated February 22, 2012, for related information, which can be found in the AD docket on the Internet at <http://www.regulations.gov>.

(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; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may review copies of the referenced service

information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on September 17, 2013.

Ross Landes, Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2013-23335 Filed 09/24/2013 at 8:45 am; Publication Date: 09/25/2013]