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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

[Docket No. 2003-CE-48-AD; Amendment 39-13886; AD 2004-24-10]

**RIN 2120-AA64**

#### **Airworthiness Directives; Bombardier, Inc. Model DHC-3 Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** The FAA adopts a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-3 airplanes modified with A.M. Luton's Supplemental Type Certificate (STC) number SA3777NM. This AD requires you to inspect the wiring for the heating blankets on P<sub>3</sub> and P<sub>Y</sub> pneumatic lines and the push-to-test function lights to ensure that they are wired to the correct schematic; replace the circuit breaker switch as applicable; and replace the flight manual supplement currently in use with Revision G, dated March 28, 2001 (incorporates Revision I of Sheet 1 of Drawing 20075, "Electrical System Schematic," dated October 10, 2000). This AD is the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for Canada. We are issuing this AD to detect and correct wiring installed in accordance with an incorrect drawing, which shows the pneumatic heating blankets to the P<sub>3</sub> and P<sub>Y</sub> pneumatic lines wired in series with the indicator lights, rather than parallel. This can result in reduced current for the heating blankets and loss of pneumatic line heating, which can lead to loss of engine power or reverse propeller overspeed governing protection and ultimately loss of control of the airplane.

**DATES:** This AD becomes effective on January 6, 2005.

As of January 6, 2005, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation.

**ADDRESSES:** You may get the service information identified in this AD from A. M. Luton, 3025 Eldridge Avenue, Bellingham, WA 98225.

You may view the AD docket at FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2003-CE-48-AD, 901 Locust, Room 506, Kansas City, Missouri 64106. Office hours are 8 a.m. to 4 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Richard Simonson, Aerospace Engineer, Special Certification Branch; telephone: (425) 917-6507; facsimile: (425) 917-6590.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

*What events have caused this AD?* Transport Canada, which is the airworthiness authority for Canada, recently notified FAA that an unsafe condition may exist on all Bombardier, Inc. Model DHC-3 airplanes modified with an A.M. Luton Supplemental Type Certificate (STC) number SA3777NM. Transport Canada reports a drawing error on Revisions G and H of Sheet 1 of the Electrical System Schematic Drawing 20075, which shows the pneumatic heating blankets to the P<sub>3</sub> and P<sub>Y</sub> pneumatic lines wired in series with the indicator lights, rather than parallel. This can result in severely reduced electrical energy going to the heating blankets with loss of pneumatic line heating, which can lead to loss of engine power or reverse propeller overspeed governing protection.

*What is the potential impact if FAA took no action?* Electrical installation using incorrect wiring configurations could result in the electrical energy being absorbed by the light bulbs with insufficient electrical energy for the heating blankets, which would allow ice to form in these lines due to condensation even though the indication lights show the lines being heated. This could result in loss of engine power or reverse propeller overspeed governing protection and lead to loss of control of the airplane.

*Has FAA taken any action to this point?* We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Bombardier, Inc. Model DHC-3 airplanes modified with A.M. Luton's Supplemental Type Certificate (STC) number SA3777NM. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on May 24, 2004 (69 FR 29477). The NPRM proposed to require you to inspect the wiring for the heating blankets on P<sub>3</sub> and P<sub>Y</sub> pneumatic lines and the push-to-test function lights to ensure that they are wired to the correct schematic; replace the circuit breaker switch as applicable; and replace the flight manual supplement currently in use with Revision G, dated March 28, 2001 (incorporates Revision I of Sheet 1 of Drawing 20075, "Electrical System Schematic," dated October 10, 2000).

### **Comments**

*Was the public invited to comment?* We provided the public the opportunity to participate in developing this AD. We received no comments on the proposal or on the determination of the cost to the public.

### **Conclusion**

*What is FAA's final determination on this issue?* We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial corrections. We have determined that these minor corrections:

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.

### **Changes to 14 CFR Part 39—Effect on the AD**

*How does the revision to 14 CFR part 39 affect this AD?* On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

## Costs of Compliance

*How many airplanes does this AD impact?* We estimate that this AD affects 32 airplanes in the U.S. registry.

*What is the cost impact of this AD on owners/operators of the affected airplanes?* We have no way of determining the number of airplanes that may need the rewiring or circuit breaker switch replacement. We estimate the following costs to accomplish the inspection:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
1 workhour est. \$65 per hour = \$65	\$100	\$165	\$5,280

## Regulatory Findings

*Will this AD impact various entities?* We have 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.

*Will this AD involve a significant rule or regulatory action?* 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); 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 summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "AD Docket No. 2003-CE-48-AD" in your request.

This rulemaking is promulgated under the authority in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, the FAA is charged with prescribing minimum standards required in the interest of safety for the design of aircraft. This regulation is within the scope of that authority since it corrects an unsafe condition in the design of the aircraft caused by incorrect wiring configurations that could result in the electrical energy being absorbed by the light bulbs with insufficient electrical energy for the heating blankets, which would allow ice to form in these lines due to condensation even though the indication lights show the lines being heated.

## 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 Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. FAA amends § 39.13 by adding a new AD to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

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The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2004-24-10 Bombardier, Inc.:** Amendment 39-13886; Docket No. 2003-CE-48-AD.

## When Does This AD Become Effective?

- (a) This AD becomes effective on January 6, 2005.

## What Other ADs Are Affected by This Action?

- (b) None.

## What Airplanes Are Affected by This AD?

- (c) This AD affects the Model DHC-3 airplanes, all serial numbers, that are:
  - (1) Modified with STC number SA3777NM; and
  - (2) Certificated in any category.

## What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of a drawing error on Revisions G and H of Sheet 1 of Drawing 20075, Electrical System Schematic. The actions specified in this AD are intended to detect and correct wiring installed according to an incorrect drawing, which shows the pneumatic heating blankets to the P<sub>3</sub> and P<sub>Y</sub> pneumatic lines wired in series with the indicator lights, rather than parallel. This can result in insufficient electrical energy for the heating blankets and loss of pneumatic heating, which can lead to loss of engine power or reverse propeller overspeed governing protection and ultimately loss of control of the airplane.

## What Must I Do To Address This Problem?

- (e) To address this problem, you must do the following:

Actions	Compliance	Procedures
(1) Inspect the electrical wiring to the P <sub>3</sub> and P <sub>Y</sub> engine pneumatic line heating blankets and the P <sub>3</sub> heater warning light to determine if they are wired in a parallel configuration. If they are not wired in a parallel configuration, they must be rewired.	Inspect within 4 months after January 6, 2005 (the effective date of this AD) or 300 hours time in service (TIS) after January 6, 2005 (the effective date of this AD), whichever occurs first. Rewire prior to further flight after the inspection.	Follow the procedures in the A.M. Luton Service Information Letter SIL-00-10-10, revision dated, March 22, 2001.

<p>(2) Replace Flight Manual Supplement currently in use with Revision G, dated March 28, 2001. This flight manual revision corrects the drawing error on Revisions G and H of Sheet 1 of the Electrical System Schematic Drawing 20075 by incorporating Revision I of Sheet 1 of Drawing 20075, "Electrical System Schematic," dated October 10, 2000.</p> <p>(i) The owner/operator holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may accomplish the flight manual replacement requirement of this AD.</p> <p>(ii) Make an entry into the aircraft records showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).</p>	<p>Replace within 4 months after January 6, 2005 (the effective date of this AD) or 300 hours TIS after January 6, 2005 (the effective date of this AD), whichever occurs first.</p>	<p>Follow the procedures in the A.M. Luton Service Information Letter SIL-00-10-10, revision dated, March 22, 2001.</p>
<p>(3) Inspect circuit breaker switch for heated engine pneumatic lines circuit. If an engine is installed that uses both P<sub>3</sub> and P<sub>Y</sub> heated pneumatic lines, circuit breaker switch, Part Number (P/N) 20075-3 (5 amp), must be replaced with circuit breaker switch P/N 20075-59 (7.5 amp).</p>	<p>Inspect within 4 months after January 6, 2005 (the effective date of this AD), or 300 hours TIS after January 6, 2005 (the effective date of this AD), whichever occurs first. Replace prior to further flight after the inspection.</p>	<p>Follow the procedures in the A.M. Luton Service Information Letter SIL-00-10-10, revision dated, March 22, 2001.</p>

**May I Request an Alternative Method of Compliance?**

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19. Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Special Certifications Branch, Transport Airplane Directorate, FAA. For information on any already approved alternative methods of compliance, contact Richard Simonson, Aerospace Engineer, Special Certifications Branch, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, WA 98055; telephone: 425-917-6507; facsimile: 816-917-6590.

**Does This AD Incorporate Any Material by Reference?**

(g) You must do the actions required by this AD following the instructions in A.M. Luton Service Information Letter SIL-00-10-10, revision dated March 22, 2001. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may get a copy from A.M. Luton, 3025 Eldridge Ave., Bellingham, WA 98225. You may review copies at FAA, Central Region, Office of the Regional Counsel, 901

Locust, Room 506, Kansas City, Missouri 64106; or 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html)*

**Is There Other Information That Relates to This Subject?**

(h) Airworthiness Directive CF-2002-38, dated August 29, 2002, and Service Information Letter SIL-00-10-10, revision dated March 22, 2001, also pertain to the subject of this AD.

Issued in Kansas City, Missouri, on November 23, 2004.

**David A. Downey,**

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-26421 Filed 12-3-04; 8:45 am]

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