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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2009-0776; Directorate Identifier 2009-NE-32-AD; Amendment 39-16403; AD 2010-17-11]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Dowty Propellers R408/6-123-F/17 Model Propellers**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued 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:

Friction or contact between a propeller de-ice bus bar and the backplate assembly can cause failure of the bus bar and a consequent intermittent short circuit. Such a short circuit can cause a dual AC generator shutdown that, particularly in conjunction with an engine failure in icing conditions, could result in reduced controllability of the airplane.

We are issuing this AD to prevent an in-flight double generator failure, which could result in reduced controllability of the airplane.

**DATES:** This AD becomes effective September 27, 2010. The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 27, 2010.

**ADDRESSES:** The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

**FOR FURTHER INFORMATION CONTACT:** Michael Schwetz, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive

## **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 September 25, 2009 (74 FR 48870). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states that:

Friction or contact between a propeller de-ice bus bar and the backplate assembly can cause failure of the bus bar and a consequent intermittent short circuit. Such a short circuit can cause a dual AC generator shutdown that, particularly in conjunction with an engine failure in icing conditions, could result in reduced controllability of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

One commenter, a private citizen, requests that the AD allow propellers modified under earlier revisions of the service bulletin to meet the requirements of the AD, as the modification instructions are the same.

We agree. We added a paragraph that allows for previous credit for initial sealant application done before the effective date of the AD using earlier versions of the service bulletin. We also reference using Dowty Propellers Alert Service Bulletin No. D8400-61-A66, Revision 5, dated June 16, 2010 in the compliance section, which is the latest version. Since Revision 5 of the ASB requires repetitive applications of sealant, we eliminated the AD differences that appeared in the proposed AD.

### **Conclusion**

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

### **Costs of Compliance**

Based on the service information, we estimate that this AD will affect about 104 propellers installed on airplanes of U.S. registry. We also estimate that it will take about 2 work-hours per propeller to comply with this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$20 per propeller. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$18,720.

### **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.

### **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 (phone (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

### **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:



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**2010-17-11 Dowty Propellers (formerly Dowty Aerospace; Dowty Rotol Limited; and Dowty Rotol):** Amendment 39-16403. Docket No. FAA-2009-0776; Directorate Identifier 2009-NE-32-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective September 27, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Dowty Propellers R408/6-123-F/17 model propellers. These propellers are installed on, but not limited to, Bombardier, Inc. (formerly de Havilland Canada) models DHC-8-400, DHC-8-401, and DHC-8-402 series airplanes.

**Reason**

(d) This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. We are issuing this AD to prevent an in-flight double generator failure, which could result in reduced controllability of the airplane.

**Actions and Compliance**

(e) Unless already done, do the following actions.

(1) For R408/6-123-F/17 model propellers with a hub, actuator, and backplate assembly line-replaceable unit serial numbers below DAP0347, do the following initial sealant application within 5,000 flight hours (FH) after the effective date of this AD:

(i) Apply sealant between the bus bar assemblies and the backplate assembly.

(ii) Use paragraph 3 of the Accomplishment Instructions of Dowty Propellers Alert Service Bulletin No. D8400-61-A66, Revision 5, dated June 16, 2010, to do the sealant application.

(2) Thereafter, for all R408/6-123-F/17 model propellers, re-apply sealant as specified in paragraphs (e)(1)(i) through (e)(1)(ii) within every additional 10,000 FH.

**Installation Prohibition**

(3) After modification of all propellers on an airplane as required by paragraph (e)(1) of this AD, do not install any Dowty R408/6-123-F/17 propeller on that airplane unless sealant has been applied between the bus bar assemblies and the backplate assembly of that propeller using the requirements of this AD.

## **FAA AD Differences**

(f) None.

## **Previous Credit**

(g) Sealant application performed before the effective date of this AD using Dowty Propellers Service Bulletin No. D8400-61-66, dated February 9, 2007, Revision 1, dated May 4, 2007, Alert Service Bulletin No. D8400-61-A66, Revision 2, dated August 19, 2009, Revision 3, dated November 10, 2009, Revision 4, dated January 19, 2010, or Revision 5, dated June 16, 2010, satisfies the initial sealant application requirement of this AD.

## **Alternative Methods of Compliance (AMOCs)**

(h) The Manager, Boston Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

## **Related Information**

(i) Refer to EASA AD 2009-0114, dated May 28, 2009, for related information.

(j) Contact Michael Schwetz, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: michael.schwetz@faa.gov; telephone (781) 238-7761; fax (781) 238-7170, for more information about this AD.

## **Material Incorporated by Reference**

(k) You must use Dowty Propellers Alert Service Bulletin No. D8400-61-A66, Revision 5, dated June 16, 2010, to do the actions required by this AD.

(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 Dowty Propellers, Anson Business Park, Cheltenham Road East, Gloucester GL 29QN, UK; telephone: 44 (0) 1452 716000; fax: 44 (0) 1452 716001.

(3) You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; 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/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on August 5, 2010.

Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.