

# 2010-05-09

## DOWTY PROPELLERS

Amendment 39-16219

Docket No. FAA-2008-0545; Directorate Identifier 2008-NE-16-AD

### PREAMBLE

#### Effective Date

(a) This airworthiness directive (AD) becomes effective April 7, 2010.

#### Affected ADs

(b) None.

(c) This AD applies to Dowty Propellers Models R354/4-123-F/13, R354/4-123-F/20, R375/4-123-F/21, R389/4-123-F/25, R389/4-123-F/26, and R390/4-123-F/27 propellers. These propellers are installed on, but not limited to, Saab AB, Saab Aerosystems SF340A and SAAB SF340B airplanes.

#### Reason

(d) European Aviation Safety Agency (EASA) AD No. 2008-0033, dated February 19, 2008, states:

A number of propeller blade outer sleeves have been found with cracks since 1996. Testing has shown that blade retention integrity is not affected by this cracking. However, this condition, if not detected and corrected, can lead to blade counterweight release, possibly resulting in damage to the aircraft and injury to occupants or persons on the ground.

This AD requires initial and repetitive visual inspections of propeller blade root outer sleeves for cracks, and removal before further flight of propeller blades with cracked blade root outer sleeves. We are issuing this AD to prevent blade counterweight release, which could result in injury or damage to the airplane.

#### Actions and Compliance

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

#### Propeller Blade Root Outer Sleeve Visual Inspections

(1) At the next 1,600 flight hours (FH) aircraft check after the effective date of this AD, or, after any blade accumulates 15,000 FH time-in-service, whichever occurs later, visually inspect all propeller blade root outer sleeves for cracks.

(2) Thereafter, at intervals not to exceed 1,600 FH, visually inspect all propeller blade root outer sleeves for cracks.

(3) Before further flight, remove any propeller blades found with cracked root outer sleeves during the visual inspections in paragraphs (e)(1) and (e)(2) of this AD.

#### **FAA AD Differences**

(f) None.

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

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

#### **Related Information**

(h) Refer to European Aviation Safety Agency AD 2008-0033, dated February 19, 2008, and Dowty Propellers Alert Service Bulletin No. SF340-61-A106, Revision 1, dated March 20, 2008, for related information.

(i) Contact Terry Fahr, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: [terry.fahr@faa.gov](mailto:terry.fahr@faa.gov); telephone (781) 238-7155; fax (781) 238-7170, for more information about this AD.

#### **Material Incorporated by Reference**

(j) None.

**FOR FURTHER INFORMATION CONTACT:** Terry Fahr, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: [terry.fahr@faa.gov](mailto:terry.fahr@faa.gov); telephone (781) 238-7155; fax (781) 238-7170.

Issued in Burlington, Massachusetts, on February 23, 2010.

**Francis A. Favara**, *Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

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[Rules and Regulations]  
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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2008-0545; Directorate Identifier 2008-NE-16-AD; Amendment 39-16219; AD 2010-05-09]**

**RIN 2120-AA64**

**Airworthiness Directives; Dowty Propellers Models R354/4-123-F/13, R354/4-123-F/20, R375/4-123-F/21, R389/4-123-F/25, R389/4-123-F/26, and R390/4-123-F/27 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:

A number of propeller blade outer sleeves have been found with cracks since 1996. Testing has shown that blade retention integrity is not affected by this cracking. However, this condition, if not detected and corrected, can lead to blade counterweight release, possibly resulting in damage to the aircraft and injury to occupants or persons on the ground.

We are issuing this AD to prevent blade counterweight release, which could result in injury or damage to the airplane.

**DATES:** This AD becomes effective April 7, 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:** Terry Fahr, Aerospace Engineer, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: terry.fahr@faa.gov; telephone (781) 238-7155; fax (781) 238-7170.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) and a supplemental 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 June 30, 2008 (73 FR 36819), and the supplemental NPRM was published in the Federal Register on May 18, 2009 (74 FR 23131). Those NPRMs proposed to correct an unsafe condition for the specified products. The MCAI states that:

A number of propeller blade outer sleeves have been found with cracks since 1996. Testing has shown that blade retention integrity is not affected by this cracking. However, this condition, if not detected and corrected, can lead to blade counterweight release, possibly resulting in damage to the aircraft and injury to occupants or persons on the ground.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We responded to the comments received on the NPRM, in the supplemental NPRM. We considered the one comment received on the supplemental NPRM, as follows:

#### **Claim That Tracking of Individual Propeller Blades Is Not Required**

One commenter, a private citizen, states that if the proposed AD was rewritten against the propeller assembly, instead of the propeller blades, then all four propeller blades are inspected at the same time, and tracking of individual propeller blades is not required. Also, because the propeller blades could be moved from propeller to propeller, a requirement to inspect all four propeller blades at the time the propeller is assembled, "zeroing out" the inspection, would prevent any propeller blade in the assembly from exceeding its inspection interval.

We do not agree. Since the propeller blade log cards are with the propeller blades, it is appropriate in writing the AD against the propeller blades; not the propeller assembly. Also, since the AD is related to propeller blade inspections, and propeller assembly total time is independent of propeller blade total time, tracking propeller assembly time could result in a propeller blade exceeding the 1,600 flight hour or 15,000 flight hour time-in-service inspection interval. We did not change the AD.

### **Conclusion**

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

### **Costs of Compliance**

Based on the service information, we estimate that this AD will affect about 292 propellers installed on airplanes of U.S. registry. We also estimate that it will take 0.5 work-hour per propeller to visually inspect for cracks. The average labor rate is \$80 per work-hour. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$11,680.

## **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 (telephone (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, 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: