

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0942; Directorate Identifier 2011-NE-29-AD; Amendment 39-16840; AD 2011-21-17]

RIN 2120-AA64

Airworthiness Directives; General Electric Company Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for all General Electric Company (GE) CT7-8A, CT7-8A1, CT7-8E, and CT7-8F5 turboshift engines with a fuel filter differential pressure switch, part number (P/N) TD028VF0H7Y5 (part of the fuel filter assembly, P/N 4110T53P06) installed. This AD requires daily visual inspections of the fuel filter differential pressure switch for fuel leaks and for excessive cracking of the switch mounting flanges due to stress-corrosion. This AD also requires the installation of a collar kit over the fuel filter differential pressure switch as terminating action to the daily inspections. This AD was prompted by reports of 47 fuel filter differential pressure switches found with stress-corrosion cracking of the mounting flanges. We are issuing this AD to prevent unrecoverable in-flight engine shutdown, engine bay fire due to fuel leakage, and forced landing or accident.

DATES: This AD is effective November 17, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of November 17, 2011.

We must receive comments on this AD by December 19, 2011.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, 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 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact GE-Aviation, M/D Rm. 285, One Neumann Way, Cincinnati, OH 45215, phone: (513) 552-3272; email: geae.aoc@ge.com. You may review copies of the service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov/>; or in person at the Docket Management Facility 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 Office (phone: (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Walter Meibaum, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7119; fax: (781) 238-7199; email: walter.meibaum@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

Since March of 2011, we have received reports of 47 fuel filter differential pressure switches found with cracked mounting flanges. The pressure switch, P/N TD028VF0H7Y5, is part of the fuel filter assembly, P/N 4110T53P06. Investigation has revealed that the two cap screws securing the switch to the fuel filter assembly, apply a bending stress to the aluminum mounting flanges of the switch. This bending stress, coupled with contaminants in the operating environment, can lead to stress-corrosion cracking of the mounting flanges on the switch. This condition, if not corrected, could result in unrecoverable in-flight engine shutdown, engine bay fire due to fuel leakage, and forced landing or accident.

Relevant Service Information

We reviewed GE Alert Service Bulletin (ASB) No. CT7-8-S/B 73-A0007, dated July 8, 2011, and ASB No. CT7-8-S/B 73-A0008, dated August 17, 2011. The service information describes procedures for performing daily visual inspections of the fuel filter differential pressure switch for fuel leaks and for excessive cracking of the switch mounting flanges, and for installing a collar kit over the fuel filter differential pressure switch as terminating action to the daily inspections. The collar kit will retain the pressure switch from separating from the filter head of the fuel filter assembly due to cracks in the pressure switch flanges, and will prevent the pressure switch from leaking.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires accomplishing the actions specified in the service information described previously.

FAA's Justification and 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 about 20% of the affected fuel filter differential pressure switches in service have been found cracked. Many of the affected engines are used on Sikorsky S-92 helicopters in offshore applications.

Therefore, we find that notice and opportunity for prior public comment are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2011-0942 and Directorate Identifier 2011-NE-29-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.

Costs of Compliance

We estimate that this AD will affect 80 engines installed on helicopters of U.S. registry. We also estimate that it would take about 0.1 work-hour per engine to perform a daily visual inspection and about 0.1 hour to install a collar over the fuel filter differential pressure switch. The average labor rate is \$85 per work-hour. Required parts would cost about \$200 per engine. Based on these figures, we estimate the total cost of the AD for one visual inspection and installation of the collar to U.S. operators to be \$17,360.

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

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 that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under 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.

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 airworthiness directive (AD):



2011-21-17 General Electric Company: Amendment 39-16840; Docket No. FAA-2011-0942; Directorate Identifier 2011-NE-29-AD.

(a) Effective Date

This AD is effective November 17, 2011.

(b) Affected ADs

None.

(c) Applicability

This AD applies to General Electric Company (GE) CT7-8A, CT7-8A1, CT7-8E, and CT7-8F5 turboshaft engines, with fuel filter differential pressure switch, part number (P/N) TD028VF0H7Y5 (part of fuel filter assembly, P/N 4110T53P06), installed.

(d) Unsafe Condition

This AD was prompted by reports of 47 fuel filter differential pressure switches found with stress-corrosion cracking of the mounting flanges. We are issuing this AD to prevent unrecoverable in-flight engine shutdown, engine bay fire due to fuel leakage, and forced landing or accident.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) Starting on the effective date of this AD, perform daily visual inspections of the fuel filter differential pressure switch for leaks and excessive cracking of the mounting flanges.

(2) Visually inspect in accordance with paragraph 3, Accomplishment Instructions, of GE Alert Service Bulletin (ASB) No. CT7-8-S/B 73-A0007, dated July 8, 2011.

(f) Mandatory Terminating Action

(1) As mandatory terminating action to the daily visual inspections, within 4 months after the effective date of this AD, install collar kit, P/N 59TC02800K1T, over the fuel filter differential pressure switch.

(2) Install the collar kit in accordance with paragraph 3, Accomplishment Instructions of GE ASB No. CT7-8-S/B 73-A0008, dated August 17, 2011.

(g) Special Flight Permits

Special flight permits are prohibited.

(h) Alternative Methods of Compliance (AMOCs)

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

(i) Related Information

For more information about this AD, contact Walter Meibaum, Aerospace Engineer, Engine & Propeller Directorate, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7119; fax: (781) 238-7199; email: walter.meibaum@faa.gov.

(j) Material Incorporated by Reference

You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information on the date specified:

(1) General Electric Company Alert Service Bulletin No. CT7-8-S/B 73-A0007, dated July 8, 2011, approved for IBR as of November 17, 2011.

(2) General Electric Company Alert Service Bulletin No. CT7-8-S/B 73-A0008, dated August 17, 2011, approved for IBR as of November 17, 2011.

(3) For service information identified in this AD, contact GE-Aviation, M/D Rm. 285, One Neumann Way, Cincinnati, OH 45215, phone: (513) 552-3272; email: geae.aoc@ge.com.

(4) You may review copies of the service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call (781) 238-7125.

(5) 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 an NARA facility, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Burlington, Massachusetts, on October 4, 2011.

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