

Proposed Rules

Federal Register

Vol. 70, No. 72

Friday, April 15, 2005

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-20944; Directorate Identifier 2003-NE-64-AD]

RIN 2120-AA64

Airworthiness Directives; General Electric Company CT7-5, -7, and -9 Series Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for General Electric Company (GE) CT7-5A2, -5A3, -7A, -7A1, -9B, -9B1, and -9B2 turboprop engines, with stage 2 turbine aft cooling plate, part number (P/N) 6064T07P01, 6064T07P02, 6064T07P05, or 6068T36P01 installed. This proposed AD would require a onetime eddy current inspection (ECI) of certain P/N stage 2 turbine aft cooling plate boltholes. This proposed AD results from reports of six stage 2 turbine aft cooling plates found cracked during inspection. We are proposing this AD to prevent stage 2 aft cooling plate separation, resulting in uncontained engine failure and damage to the airplane.

DATES: We must receive any comments on this proposed AD by June 14, 2005.

ADDRESSES: Use one of the following addresses to comment on this proposed AD.

- *DOT Docket Web Site:* Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- *Government-wide Rulemaking Web Site:* Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- *Mail:* Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building,

Room PL-401, Washington, DC 20590-001.

- *Fax:* (202) 493-2251.
- *Hand Delivery:* Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact General Electric Aircraft Engines CT7 Series Turboprop Engines, 1000 Western Ave., Lynn, MA 01910; telephone (781) 594-3140, fax (781) 594-4805, for the service information identified in this proposed AD.

You may examine the comments on this proposed AD in the AD docket on the Internet at <http://dms.dot.gov>.

FOR FURTHER INFORMATION CONTACT:

Eugene Triozzi, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7148; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to submit any written relevant data, views, or arguments regarding this proposal. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2005-20944; Directorate Identifier 2003-NE-64-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the DMS Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78) or you may visit <http://dms.dot.gov>.

Examining the AD Docket

You may examine the docket that contains the proposal, any comments received, and any final disposition in person at the DMS Docket Offices between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in **ADDRESSES**. Comments will be available in the AD docket shortly after the DMS receives them.

Discussion

GE advises that they received reports of six stage 2 turbine aft cooling plates found cracked at the boltholes. The cracks ran into the lower ligament. Investigation has revealed that these cracks resulted from using worn balance arbor washers and or worn nuts. The worn arbor washers and worn nuts caused bolthole deformation and cracking. This cracking could lead to separation of the stage 2 turbine aft cooling plate from the engine. GE has analyzed the inspection data from 236 stage 2 turbine aft cooling plates to establish validated lives for lower ligament cracking and breakthrough. GE has also conducted analysis to predict lives for top ligament cracking and breakthrough, which would lead to cooling plate separation. GE's risk analysis shows that a onetime ECI at the next shop visit, but before accumulating an additional 6,000 cycles-in-service (CIS) after the effective date of the AD, of the affected P/N stage 2 turbine aft cooling plates will provide early detection of at-risk parts. GE advises that the production and overhaul tools have been removed and inspected to identify and replace arbor washers and nuts that are worn. This condition, if not corrected, could result in stage 2 aft cooling plate separation, resulting in uncontained engine failure and damage to the airplane.

Relevant Service Information

We have reviewed and approved the technical contents of GE Alert Service Bulletin (ASB) No. CT7-TP S/B 72-A0464, Revision 2, dated May 9, 2003, that describes procedures for performing a onetime ECI of stage 2 turbine aft cooling plates, P/Ns 6064T07P01, 6064T07P02, 6064T07P05, and

6068T36P01, at the next engine or hot section module shop visit.

FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other products of this same type design. We are proposing this AD, which would require a onetime ECI of the boltholes of stage 2 turbine aft cooling plates, P/Ns 6064T07P01, 6064T07P02, 6064T07P05, and 6068T36P01. The ECI must be done at the next engine or hot section module shop visit or before accumulating an additional 6,000 CIS after the effective date of the AD, whichever occurs first. The proposed AD would require you to use the service information described previously to perform these actions.

Costs of Compliance

There are about 1,240 GE CT7-5, -7, and -9 series turboprop engines of the affected design in the worldwide fleet. We estimate that 550 engines installed on airplanes of U.S. registry would be affected by this proposed AD. We also estimate that it would take about one work hour per engine to perform the proposed actions, and that the average labor rate is \$65 per work hour. We estimate that 2.5% (or 14) of the 550 engines will require stage 2 turbine aft cooling plates being rejected by the onetime ECI. Required parts would cost about \$17,000 per engine. Based on these figures, we estimate the total cost of the proposed AD to U.S. operators to be \$270,700.

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 have 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 that the 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); and
3. Would 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 proposal and placed it in the AD Docket. You may get a copy of this summary at the address listed under **ADDRESSES**.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Under the authority delegated to me by the Administrator, the Federal Aviation Administration 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 airworthiness directive:

General Electric Company: Docket No. FAA-2005-20944; Directorate Identifier 2003-NE-64-AD.

Comments Due Date

- (a) The Federal Aviation Administration (FAA) must receive comments on this airworthiness directive (AD) action by June 14, 2005.

Affected ADs

- (b) None.

Applicability: (c) This AD applies to General Electric Company (GE) CT7-5A2, -5A3, -7A, -7A1, -9B, -9B1, and -9B2 turboprop engines, with stage 2 turbine aft cooling plate, part number (P/N) 6064T07P01, 6064T07P02, 6064T07P05, or 6068T36P01 installed. These engines are installed on, but not limited to, Construcciones Aeronauticas, SA CN-235

series and SAAB Aircraft AB SF340 series airplanes.

Unsafe Condition

- (d) This AD results from reports of six stage 2 turbine aft cooling plates found cracked during inspection.

Compliance: (e) You are responsible for having the actions required by this AD performed at the next engine or hot section module shop visit, but before accumulating an additional 6,000 cycles-in-service after the effective date of the AD, unless already done.

OneTime Eddy Current Inspection (ECI)

- (f) Perform a onetime ECI of the stage 2 turbine aft cooling plate boltholes, using paragraph 3.B. of GE Alert Service Bulletin (ASB) No. CT7-TP S/B 72-A0464, Revision 2, dated May 9, 2003.

(g) Remove from service any stage 2 turbine aft cooling plate that does not pass the return to service criteria specified in paragraph 3.B.(2) of GE Alert Service Bulletin (ASB) No. CT7-TP S/B 72-A0464, Revision 2, dated May 9, 2003.

Previous Credit

- (h) Previous credit is allowed for onetime ECIs of the stage 2 turbine aft cooling plate boltholes that were done using GE ASB No. CT7-TP S/B 72-A0464, dated February 25, 2003, or GE ASB No. CT7-TP S/B 72-A0464, Revision 1, dated March 12, 2003, before the effective date of this AD.

Definition of Engine or Hot Section Module Shop Visit

- (i) For the purposes of this AD, an engine or hot section module shop visit is defined as the introduction of the engine or hot section module into a shop that includes separation of CT7 turboprop engine major case flanges.

Alternative Methods of Compliance

- (j) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

- (k) None.

Issued in Burlington, Massachusetts, on April 11, 2005.

Robert E. Guyotte,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 05-7561 Filed 4-14-05; 8:45 am]

BILLING CODE 4910-13-P