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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NE-61-AD; Amendment 39-12594; AD 2002-01-03]

RIN 2120-AA64

Airworthiness Directives; GE Aircraft Engines CT7 Series Turboprop Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to GE Aircraft Engines (GE) CT7 series turboprop engines. This amendment requires removal of stage 2 turbine aft cooling plates of a certain part number (P/N) and installation of cooling plates of a new design. This amendment is prompted by a report of a stage 2 turbine aft cooling plate cracking, resulting in an uncontained engine failure. The actions specified by this AD are intended to prevent stage 2 turbine aft cooling plate cracking, which could result in uncontained engine failure, and damage to the airplane.

DATES: Effective date February 12, 2002.

FOR FURTHER INFORMATION CONTACT: Barbara Caufield, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: (781) 238-7146; fax: (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to GE Aircraft Engines (GE) CT7 series turboprop engines was published in the Federal Register on May 2, 2001 (66 FR 21898). That action proposed to require removal of stage 2 turbine aft cooling plates of a certain part number (P/N) and installation of cooling plates of a new design.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

One commenter suggests that the Economic Analysis paragraph be changed to reflect that not all cooling plates may be installed in engines, and, therefore, while there may be 564 cooling plates available worldwide, there are not 564 engines that will be affected by the AD. The FAA agrees. Not all cooling plates of the affected design are assembled into engines. GE estimates that only 288 affected cooling plates have been assembled into engines. Therefore, the Economic Analysis statement is changed to reflect that only 288 engines worldwide will be affected. The FAA's estimate for engines of the number of engines installed on airplanes of US registry, however, remains the same.

The manufacturer asks that paragraph (a) and (b) of the Compliance Section be changed by adding serial number prefix GFF to Stage 2 aft cooling plate P/N 6064T07P02. The FAA agrees, because only cooling plates with serial number prefix GFF are affected. The FAA has limited the applicability of this AD to just those cooling plates, P/N 6064T07P02 with serial numbers that begin with the letters "GFF." In addition, paragraphs (a) and (b) have been changed accordingly.

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Economic Analysis

There are approximately 288 engines of the affected design in the worldwide fleet. The FAA estimates that 180 engines installed on airplanes of U.S. registry would be affected by this proposed AD, that it would take approximately 0.5 work hour per engine to accomplish the proposed actions, and that the average labor rate is \$60 per work hour. Required aft cooling plates would cost approximately \$15,282 per engine. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$2,756,160. The manufacturer has stated that it may provide the new design aft cooling plate at no cost to operators, and that if the aft cooling plate is replaced at the next engine or hot section module overhaul shop visit, no additional labor costs will be incurred.

Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this final rule.

For the reasons discussed above, I certify that this action (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) if promulgated, 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to 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.

Sec. 39.13 [Amended]

2. Section 39.13 is amended adding a new airworthiness directive 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 "av-info.faa.gov"

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).

2002-01-03 GE Aircraft Engines: Amendment 39-12594. Docket 2000-NE-61-AD.

Applicability: This airworthiness directive (AD) is applicable to GE Aircraft Engines (GE) CT7 Models CT7-5A2, -5A3, -7A, and -7A1 turboprop engines with part number (P/N) 6064T07P02 stage 2 aft cooling plates with serial numbers beginning with the letters GFF, installed on but not limited to Construcciones Aeronauticas, SA CN-235 series and SAAB Aircraft AB SF340 series airplanes.

Note 1: This AD applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Compliance is required at the next overhaul of the engine or hot section module, or within 8,000 cycles after the effective date of this AD, whichever occurs first, unless already done.

To prevent stage 2 turbine aft cooling plate cracking, which could result in uncontained engine failure, and damage to the airplane, do the following:

- (a) Replace stage 2 aft cooling plates P/N 6064T07P02 with serial numbers that begin with the letters GFF with stage 2 aft cooling plate P/N 6064T07P05.
- (b) After the effective date of this AD, do not install any stage 2 aft cooling plates P/N 6064T07P02 with serial numbers that begin with the letters GFF.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Engine Certification Office (ECO). Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Special Flight Permits

(d) Special flight permits may be issued in accordance Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

Effective Date

(e) This amendment becomes effective on February 12, 2002.

Issued in Burlington, Massachusetts, on December 31, 2001.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 02-302 Filed 1-7-02; 8:45 am]

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