

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NE-48-AD; Amendment 39-13090; AD 2003-06-03]

RIN 2120-AA64

Airworthiness Directives; General Electric 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 certain General Electric Aircraft Engines (GEAE) CT7 series turboprop engines. This amendment requires initial and repetitive inspections of the propeller gearbox (PGB) oil filter impending bypass button (IBB) for extension (popping), requires follow-on inspections, maintenance, and replacement actions if the PGB oil filter IBB is popped, and if necessary, replacement of the PGB with a serviceable PGB. In addition, this amendment requires replacement of certain left-hand and right-hand idler gears at time of overhaul of PGBs, and the replacement of certain SN PGBs before accumulating 2,000 flight hours. This amendment is prompted by an on-going investigation that concluded that low-time PGB removals are due to accelerated wear of the PGB idler gears, rather than improperly hardened PGB input pinions. The actions specified by this AD are intended to prevent separation of PGB left-hand and right-hand idler gears, which could result in uncontained PGB failure and internal bulkhead damage, possibly prohibiting the auxiliary feathering system from fully feathering the propeller on certain PGBs.

DATES: Effective April 24, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 24, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from General Electric Aircraft Engines CT7 Series Turboprop Engines, 1000 Western Ave, Lynn, MA 01910; telephone (781) 594-3140, fax (781) 594-4805. This information may be examined, by appointment, at the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

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 certain GEAE CT7 series turboprop engines was published in the Federal Register on June 13, 2002 (67 FR 40623). That action proposed to require initial and repetitive inspections of the PGB oil filter IBB for extension (popping), follow-on inspections, maintenance, and replacement actions if the PGB oil filter IBB is popped, and if necessary, replacement of the PGB with a serviceable PGB. In addition, that action proposed to require replacement of certain left-hand and right-hand idler gears at time of overhaul of PGBs, and the replacement of certain SN PGBs before accumulating 2,000 flight hours in accordance with GEAE CT7 Turboprop Service Bulletin CT7-TP S/B 72-0453, dated July 27, 2001 and GEAE CT7 Turboprop Service Bulletin CT7-TP S/B 72-0452, dated July 27, 2001.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Economic Analysis

There are approximately 150 engines of the affected design installed on airplanes of U.S. registry that would be affected by this AD. The FAA estimates that each IBB inspection would take approximately 0.25 work hours per engine, and the average labor rate is \$60 per work hour. Inspection and replacement of idler gears would take approximately four work hours per engine at time of PGB overhaul. Replacement cost for idler gears per PGB is estimated to be \$140,670. Replacement of a PGB would take approximately 48 hours. Therefore, the total cost of the AD to U.S. operators would be approximately \$21,138,750.

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) 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, Incorporation by reference, 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.

§ 39.13 [Amended]

2. Section 39.13 is amended by 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 "www.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).

2003-06-03 General Electric Aircraft Engines: Amendment 39-13090. Docket No. 99-NE-48-AD.

Applicability: This airworthiness directive (AD) is applicable to General Electric Aircraft Engines (GEAE) CT7 series turboprop engines, with propeller gearboxes (PGBs) identified by serial number (SN) in Table 1 of GEAE CT7 Turboprop Service Bulletin CT7-TP S/B 72-0452, dated July 27, 2001. These engines are installed on but not limited to SAAB 340 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 (f) 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 with this AD is required as indicated, unless already done.

To prevent separation of PGB left-hand and right-hand idler gears, which could result in uncontained PGB failure and internal bulkhead damage, possibly prohibiting the auxiliary feathering system from fully feathering the propeller on certain PGBs, do the following:

(a) Inspect the PGB oil filter impending bypass button (IBB) for extension in accordance with the following schedule:

- (1) Initially inspect within 50 hours time-in-service (TIS) after the effective date of this AD.
- (2) Thereafter, inspect each operational day.

(b) If the PGB oil filter IBB is extended, replace the oil filter and perform follow-on inspections in accordance with 3.A of the Accomplishment Instructions of GEAE CT7 Turboprop Service Bulletin CT7-TP S/B 72-0453, dated July 27, 2001.

(c) At the next return of the PGB to a CT7 turboprop overhaul facility after the effective date of this AD, replace left-hand and right-hand idler gears in accordance with the Accomplishment Instructions of GEAE CT7 Turboprop Service Bulletin CT7-TP S/B 72-0452, dated July 27, 2001.

(d) If the PGB is mated to a Hamilton Standard propeller and the left-hand and right-hand idler gears have not been replaced in accordance with the Accomplishment Instructions of GEAE CT7 Turboprop Service Bulletin CT7-TP S/B 72-0452, dated July 27, 2001, replace the PGB before accumulating an additional 2,000 engine flight hours after the effective date of this AD.

Terminating Action

(e) Replacement of left-hand and right-hand idler gears in accordance with paragraph (c) of this AD, or replacement of the PGB in accordance with paragraph (d) of this AD constitutes terminating action to the repetitive inspections required by paragraph (a) of this AD.

Alternative Methods of Compliance

(f) 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

(g) Special flight permits may be issued only for an airplane that has not more than one engine with a PGB oil filter IBB extended, to operate the airplane to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated By Reference

(h) The inspections must be done in accordance with the following General Electric Aircraft Engines service bulletins (SBs):

Document No.	Pages	Revision	Date
SB CT7-TP S/B 72-0452 Total Pages: 12.	All	Original	July 27, 2001
SB CT7-TP S/B 72-0453 Total Pages: 5.	All	Original	July 27, 2001

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from General Electric Aircraft Engines CT7 Series Turboprop Engines, 1000 Western Ave, Lynn, MA 01910; telephone (781) 594-3140, fax (781) 594-4805. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

Effective Date

(i) This amendment becomes effective on April 24, 2003.

Issued in Burlington, Massachusetts, on March 12, 2003.

Mark C. Fulmer,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 03-6505 Filed 3-19-03; 8:45 am]

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