

Proposed Rules

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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. 99-NE-48-AD]

RIN 2120-AA64

Airworthiness Directives; General Electric Aircraft Engines CT7 Series Turboprop Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain General Electric Aircraft Engines (GEAE) CT7 series turboprop engines. This proposal would require initial and repetitive inspections of the propeller gearbox (PGB) oil filter impending bypass button (IBB) for extension (popping). This proposal would also require 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 proposal would require a one-time removal of possibly improperly hardened PGB input pinions and replacement with PGB input pinions that were manufactured using the proper hardening process as terminating action to the repetitive inspections. This proposal is prompted by reports of improperly hardened PGB input pinions. The actions specified by the proposed AD are intended to prevent PGB input pinion failure, which could result in PGB failure and an in-flight engine shutdown.

DATES: Comments must be received by July 3, 2000.

ADDRESSES: Submit comments to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-48-AD, 12 New England Executive Park, Burlington, MA

01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from General Electric Aircraft Engines, 1000 Western Ave, Lynn, MA 01910; telephone (781) 594-3140, fax (781) 594-4805. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

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) 238-7173, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 99-NE-48-AD." The

postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-48-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

The Federal Aviation Administration (FAA) has received reports of improperly hardened propeller gearbox (PGB) input pinions installed on General Electric Aircraft Engines (GEAE) CT7 series turboprop engines. The investigation revealed that the manufacturing process for PGB input pinions changed in September 1996. Two PGB input pinions have been found with nonconforming material hardness and case depth, which led to premature pinion wear. Premature pinion wear may be detected by daily IBB inspections and follow-on inspections if the IBB is popped. The requirement to inspect the IBB for extension daily ensures early detection of premature pinion wear. This condition, if not corrected, could result in PGB input pinion failure, which could result in PGB failure and an in-flight engine shutdown.

Service Bulletins (SB's)

The FAA has reviewed and approved the technical contents of GEAE (CT7-TP Series) SB 72-422, Revision 2, dated November 3, 1999, that describes procedures for inspections of the PGB oil filter impending bypass button (IBB) for extension (popping), and if the PGB oil filter IBB is popped, follow-on inspections, maintenance, and replacement actions. This SB also describes rejection criteria for replacing the PGB, if necessary. Finally, this SB identifies PGB's by serial number (SN) that require inspection.

The FAA has also reviewed and approved the technical contents of GEAE (CT7-TP Series) SB 72-423, dated June 1, 1999, that describes procedures for replacing possibly improperly hardened PGB input pinions with PGB input pinions manufactured using the proper hardening process. In addition, this SB identifies the PGB input pinions by SN and the SN of the

last known PGB in which those input pinions were installed.

Proposed Actions

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would require an initial inspection of the PGB oil filter IBB for popping within 50 hours time-in-service (TIS) after the effective date of this AD. If the PGB oil filter IBB is popped, this proposed AD would require follow-on inspections, maintenance, and replacement actions, and if necessary, replacement of the PGB with a serviceable PGB. Following the initial inspection of the PGB oil filter IBB, the inspections would take place each operational day.

Terminating Action

In addition, this AD would require, at the next return of the PGB to a CT7 turboprop overhaul facility after the effective date of this AD, replacing possibly improperly hardened PGB input pinions with PGB input pinions manufactured the proper hardening process. Installation of a PGB input pinion manufactured using the proper hardening process constitutes terminating action to the repetitive inspections. The actions would be required to be accomplished in accordance with the SB's described previously.

Economic Analysis

There are approximately 170 engines of the affected design installed on aircraft of US registry that would be affected by this proposed 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. Follow-on borescope inspections would take approximately 4 work hours per engine; unscheduled PGB removal and replacement would take 60 work hours per engine. Therefore, the total cost impact on US operators would be approximately \$663,000.

Regulatory Impact

This proposal 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 proposal.

For the reasons discussed above, I certify that this 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) 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 copy of the draft regulatory evaluation prepared for this action 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.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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 the following new airworthiness directive:

General Electric Aircraft Engines: Docket No. 99-NE-48-AD.

Applicability: General Electric Aircraft Engines (GEAE) CT7 series turboprop engines, with propeller gearboxes (PGB's) and PGB input pinions identified by serial number (SN) in Table 1 of GEAE (CT7-TP Series) Service Bulletin (SB) 72-422, Revision 2, dated November 3, 1999, and in Table 1 of GEAE (CT7-TP Series) SB 72-423, dated June 1, 1999. These engines are installed on but not limited to SAAB 340 series airplanes.

Note 1: This airworthiness directive (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 (e) 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: Required as indicated, unless accomplished previously.

To prevent PGB input pinion failure, which could result in PGB failure and an in-flight engine shutdown, accomplish the following:

Inspections

(a) Inspect the PGB oil filter impeding bypass button (IBB) for extension (popping) 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 popped, replace the oil filter and perform follow-on inspections immediately. Perform PGB maintenance, or replace the PGB with a serviceable PGB, if necessary; in accordance with the Accomplishment Instructions of GEAE (CT7-TP Series) SB 72-422, Revision 2, dated November 3, 1999. Then comply with (a) or (c).

(c) At the next return of the PGB to a CT7 turboprop overhaul facility after the effective date of this AD, but no later than one year after the effective date of this AD, remove from service improperly hardened PGB input pinions and replace with airworthy PGB input pinions manufactured using the proper hardening process, in accordance with the Accomplishment Instructions of GEAE (CT7-TP Series) SB 72-423, dated June 1, 1999.

Terminating Action

(d) Installation of a PGB input pinion in accordance with paragraph (c) of this AD constitutes terminating action to the repetitive inspections required by paragraph (a) of this AD.

Alternative Methods of Compliance

(e) 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 shall 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.

Ferry Flights

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

Issued in Burlington, Massachusetts, on April 27, 2000.

David A. Downey,

Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.
[FR Doc. 00-11178 Filed 5-3-00; 8:45 am]

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