[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-2540; Project Identifier AD-2024-00343-E]

RIN 2120-AA64

Airworthiness Directives; General Electric Company 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 certain General Electric Company (GE) Model CT7-5A2, CT7-5A3, CT7-7A, CT7-7A1, CT7-9B, CT7-9B1, CT7-9B2, CT7-9C, CT7-9C3, CT7-9D, and CT7-9D2 engines. This proposed AD was prompted by the manufacturer's determination that certain GE Model CT7 fleets have affected cooling plates installed that do not meet lifing guidelines. This proposed AD would require replacement of the stage 1 turbine forward cooling plate and the stage 2 turbine aft cooling plate. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2024-2540; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Sungmo Cho, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7241; email: sungmo.d.cho@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2024-2540; Project Identifier AD-2024-00343-E" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may revise this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked

submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Sungmo Cho, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

In 2004, the manufacturer notified the FAA of the identification of an analytic life shortfall on affected stage 1 turbine forward cooling plates and stage 2 turbine aft cooling plates installed on certain GE CT7 Model engines. As a result, GE published updated service material to remove affected parts at reduced cyclic limits. Based on the results of a 2019 fleet survey, the manufacturer determined that certain fleets still have affected cooling plates installed and in service which are above the recommended removal limits. Specifically, the affected fleet includes GE Model CT7-5A2, CT7-5A3, CT7-7A, CT7-7A1, CT7-9B, CT7-9B1, CT7-9B2, CT7-9C, CT7-9C3, CT7-9D, and CT7-9D2 engines with an installed stage 1 turbine forward cooling plate having part number (P/N) 6064T08P01, or with an installed stage 2 turbine aft cooling plate having P/N 6064T07P05 or P/N 6068T36P01. This condition, if not addressed, could result in the cooling plates failing and lead to uncontained engine failure and damage to the airplane.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require replacement of the stage 1 turbine forward cooling plate having part number (P/N) 6064T08P01 and the stage 2 turbine aft cooling plate having P/N 6064T07P05 or P/N 6068T36P01.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 228 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Replace stage 1 turbine forward cooling plate and stage 2 turbine aft cooling plate	8 work-hours x $85 per hour = $680	$88,360	$89,040	$20,301,120

The above costs presume that the installed engine would require replacement of both the stage 1 turbine forward cooling plate and stage 2 turbine aft cooling plate. It is possible that only one of these would need replacement, thus reducing the cost of the proposed AD.

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.

The FAA is 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

The FAA 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 this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA 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-2024-2540; Project Identifier AD-2024-00343-E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to General Electric Company (GE) Model CT7-5A2, CT7-5A3, CT7-7A, CT7-7A1, CT7-9B, CT7-9B1, CT7-9B2, CT7-9C, CT7-9C3, CT7-9D, and CT7-9D2 engines with an installed stage 1 turbine forward cooling plate having part

number (P/N) 6064T08P01; or with an installed stage 2 turbine aft cooling plate having P/N 6064T07P05 or P/N 6068T36P01.

(d) Subject

Joint Aircraft System Component (JASC) Code 7200, Engine (Turbine/Turboprop).

(e) Unsafe Condition

This AD was prompted by the manufacturer's determination that certain GE Model CT7 fleets have affected cooling plates installed that do not meet lifing guidelines. The FAA is issuing this AD to prevent the failure of the stage 1 turbine forward cooling plate and stage 2 turbine aft cooling plate. The unsafe condition, if not addressed, could result in uncontained engine failure and damage to the airplane.

(f) Compliance

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

(g) Required Actions

(1) Within the compliance times specified in paragraphs (g)(1)(i) through (iii) of this AD, replace the affected stage 1 turbine forward cooling plate or stage 2 turbine aft cooling plate, as applicable, with a replacement P/N eligible for installation, in accordance with Table 1 to paragraph (g)(1) of this AD:

(i) For Group 1 engines with an affected part installed, replace the affected part at the next exposure of the gas generator stator assembly that occurs after the effective date of this AD.

(ii) For Group 2 engines with an affected part installed having 7,000 part cycles since new (PCSN) or less as of the effective date of this AD, replace the affected part at the next exposure of the gas generator stator assembly or within 2,000 flight cycles (FCs) but before reaching 7,500 PCSN, whichever occurs first after the effective date of this AD.

(iii) For Group 2 engines with an affected part installed having more than 7,000 PCSN as of the effective date of this AD, replace the affected part at the next exposure of the gas generator stator assembly or within 500 FCs, whichever occurs first after the effective date of this AD.

Table 1 to paragraph (g)(1): Cooling Plate Replacement P/Ns

Engine Group	Part Name	Affected P/N	Replacement P/N
1	Stage 1 turbine forward cooling plate	6064T08P01	6064T08P04
1	Stage 2 turbine aft cooling plate	6064T07P05	6064T07P07
1	Stage 2 turbine aft cooling plate	6068T36P01	6068T36P04
2	Stage 1 turbine forward cooling plate	6064T08P01	6064T08P03 or 6064T08P04
2	Stage 2 turbine aft cooling plate	6064T07P05	6064T07P07
2	Stage 2 turbine aft cooling plate	6068T36P01	6068T36P04

(h) Definitions

For the purpose of this AD:

(1) "Group 1 engines" are GE Model CT7-5A2, CT7-5A3, CT7-9B, CT7-9B1, CT7-9B2, CT7-9D, and CT7-9D2 engines.

(2) "Group 2 engines" are GE Model CT7-7A, CT7-7A1, CT7-9C, and CT7-9C3 engines.

(3) "Exposure of the gas generator stator assembly" is when the gas generator rotor and stator assembly are separated from the combustor module.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, AIR-520 Continued Operational Safety Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the AIR-520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (j) of this AD and email to: AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Additional Information

For more information about this AD, contact Sungmo Cho, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7241; email: sungmo.d.cho@faa.gov.

(k) Material Incorporated by Reference

None.

Issued on November 20, 2024.

Peter A. White,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
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