[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0653; Project Identifier AD-2020-00631-E]

RIN 2120-AA64

Airworthiness Directives; General Electric Company Turbofan 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 all General Electric Company (GE) GEnx-1B64, -1B64/P1, -1B64/P2, -1B67, -1B67/P1, -1B67/P2, -1B70, -1B70/75/P1, -1B70/75/P2, -1B70/P1, -1B70/P2, -1B70C/P1, -1B70C/P2, -1B74/75/P1, -1B74/75/P2, -1B76/P2, and -1B76A/P2 model turbofan engines. This proposed AD was prompted by a report of a crack in the outer fuel manifold causing fuel leakage. This proposed AD would require initial and repetitive visual inspections of the cushioned loop clamp ("p-clamp") and, depending on the results of the inspection, a spot fluorescent penetrant inspection (FPI) of the outer fuel manifold. Depending on the results of the FPI, this proposed AD would require replacement of the outer fuel manifold. This proposed AD would also require initial and repetitive replacements of the p-clamp. 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 https://www.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.

For service information identified in this NPRM, contact General Electric Company, 1 Neumann Way, Cincinnati, OH, 45215, United States; phone: 513-552-3272; email: aviation.fleetsupport@ae.ge.com; website: www.ge.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0653; 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. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Mehdi Lamnyi, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7743; fax: 781-238-7199; email: Mehdi.Lamnyi@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-2020-0653; Project Identifier AD-2020-00631-E" at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

Except for Confidential Business Information 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 https://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

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 Mehdi Lamnyi, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

The FAA received a report that an aircraft with GE GEnx-1B model engines installed experienced a fuel imbalance in July 2018. Upon landing, the operator identified a crack in the outer fuel manifold during a fuel system inspection. The root cause of this cracking has been identified as a failure of a p-clamp that provides bracket support to the outer fuel manifold. Failure of the p-clamp increased high-cycle fatigue stresses at a welded joint of the outer fuel manifold resulting in the crack. This condition, if not addressed, could result in engine fire and damage to the airplane.

Related Service Information under 1 CFR part 51

The FAA reviewed GE GEnx-1B Service Bulletin (SB) 73-0080 R01, dated August 29, 2019. The SB describes procedures for replacing the p-clamp located at the signal fuel tube hose, significant item number 34200, and instructions for removing the signal fuel tube hose when a p-clamp is found damaged or missing. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

The FAA is proposing this AD because the Agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require initial and repetitive visual inspections of the p-clamp and, depending on the results of the inspection, a FPI of the outer fuel manifold. Depending on the results of the FPI, this proposed AD would require replacement of the outer fuel manifold. This proposed AD would also require initial and repetitive replacements of the p-clamp.

Interim Action

The FAA considers this proposed AD interim action. The manufacturer is still reviewing this unsafe condition and may develop a terminating action.

Costs of Compliance

The FAA estimates that this proposed AD affects 190 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
Visually inspect the p-clamp	0.25 work-hours x $85 per hour = $21.25	$0	$21.25	$4,037.50
Replace the p-clamp	0.25 work-hours x $85 = $21.25	$102	$123.25	$23,417.50

The FAA estimates the following costs to do any necessary FPIs and replacements that would be required based on the results of the proposed visual inspection. The FAA has no way of determining the number of aircraft that might need this FPI or replacement:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
FPI the outer fuel manifold	2.5 work-hours x $85 per hour = $212.50	$0	$212.50
Replace the outer fuel manifold	250 work-hours x $85 per hour = $21,250	$18,400	$39,650

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) Will not affect intrastate aviation in Alaska, 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.

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 (AD):

General Electric Company: Docket No. FAA-2020-0653; Project Identifier AD-2020-00631-E.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all General Electric Company (GE) GEnx-1B64, -1B64/P1, -1B64/P2, -1B67, -1B67/P1, -1B67/P2, -1B70, -1B70/75/P1, -1B70/75/P2, -1B70/P1, -1B70/P2, -1B70C/P1, -1B70C/P2, -1B74/75/P1, -1B74/75/P2, -1B76/P2, and -1B76A/P2 model turbofan engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7310, Engine Fuel Distribution.

(e) Unsafe Condition

This AD was prompted by a report of a crack in the outer fuel manifold causing fuel leakage. The FAA is issuing this AD to prevent failure of the outer fuel manifold. The unsafe condition, if not addressed, could result in engine fire and damage to the airplane.

(f) Compliance

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

(g) Required Actions

(1) Within 500 flight cycles (FCs) after the effective date of this AD, perform a visual inspection of the cushioned loop clamp ("p-clamp") to verify the p-clamp is undamaged and installed.

(i) Thereafter, perform the visual inspection required by (g)(1) of this AD at intervals not to exceed 500 FCs since the last inspection.

(ii) [Reserved]

(2) If, during any visual inspection required by paragraphs (g)(1) or (g)(1)(i) of this AD, the p-clamp is outside of the limits in paragraph 3.B.(4) of GE GEnx-1B Service Bulletin (SB) 73-0080 R01, dated August 29, 2019, or if the p-clamp is missing, perform a spot fluorescent penetrant inspection of the outer fuel manifold, part number (P/N) 2403M46G01 significant item number (SIN) 34302, using Accomplishment Instructions, paragraph 3.B.(4)(b), of GE GEnx-1B SB 73-0080 R01, dated August 29, 2019.

(i) If a crack or a sign of fuel leakage is found, before further flight, remove the outer fuel manifold, P/N 2403M46G01 SIN 34302, from service and replace with a part eligible for installation.

(ii) [Reserved]

(3) Within 500 FCs after the effective date of this AD, and thereafter at intervals not to exceed 500 FCs from the last p-clamp replacement, replace the p-clamp with a new p-clamp. Complete this required action after performing the visual inspections required by paragraphs (g)(1) and (g)(1)(i) of this AD.

(h) Definition

For the purpose of this AD, a p-clamp is a clamp, P/N J1432P12 with SIN 34282, located at the signal fuel tube hose, SIN 34200, as shown in Accomplishment Instructions, paragraph 3, Figure 1, "Outer Fuel Manifold and Clamp Location," of GE GEnx-1B SB 73-0080 R01, dated August 29, 2019.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO 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 certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD. You may email your request to: ANE-AD-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) Related Information

(1) For more information about this AD, contact Mehdi Lamnyi, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7743; fax: 781-238-7199; email: Mehdi.Lamnyi@faa.gov.

(2) For service information identified in this AD, contact General Electric Company, 1 Neumann Way, Cincinnati, OH, 45215, United States; phone: 513-552-3272; email: aviation.fleetsupport@ae.ge.com; website: www.ge.com. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Issued on July 13, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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