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. FAA–2024–0763; Project Identifier AD–2023–00924–E]

RIN 2120–AA64

Airworthiness Directives; International Aero Engines, LLC

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 International Aero Engines, LLC (IAE LLC) Model PW1122G–JM, PW1124G1–JM, PW1124G–JM, PW1127G1–JM, PW1127G1A–JM, PW1127G1B–JM, PW1127G–JM, PW1127GA–JM, PW1129G–JM, PW1130G–JM, PW1133G–JM, and PW1133GA–JM engines. This proposed AD was prompted by an in-flight shutdown (IFSD) caused by the fracture of a low-pressure compressor (LPC) 1st-stage integrally bladed rotor (IBR–1). This proposed AD would require removal and replacement of affected LPC key washers and affected LPC IBR–1 and installation of inlet guide vane (IGV) spacers. 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 May 9, 2024.

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–2024–0763; 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: Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238–7655; email: *carol.nguyen@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 **ADDRESSES**. Include ''Docket No. FAA–2024–0763; Project Identifier AD–2023–00924–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 amend 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 Carol Nguyen, 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

On July 8, 2022, an Airbus Model A320neo airplane powered by IAE LLC Model PW1127G–JM engines experienced an IFSD. A manufacturer investigation determined that the IFSD was caused by a fractured LPC IBR–1 which resulted from an aerodynamic excitation. The most likely cause of the aerodynamic excitation was a misaligned IGV located directly upstream of the IBR–1. As a result, Pratt & Whitney (PW) redesigned the LPC IGV arm assembly by adding a spacer to provide additional torque capability and to prevent a misaligned vane. PW also redesigned the IBR–1 to better withstand an aerodynamic excitation from a misaligned IGV. As a result, the FAA is proposing to require the removal and replacement of certain affected LPC key washers and affected LPC IBR–1, and installation of LPC IGV spacers. This condition, if not addressed, could result in damage to the engine, damage to the airplane, and possible loss of 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 removal and replacement of affected LPC key washers and affected LPC IBR–1 and installation of LPC IGV spacers.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 215 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 LPC IBR–1	1 work-hours × $85 per hour = $85	$36,350	$36,435	$7,833,525
Replace IGV key washers and install IGV spacers.	20 work-hours × $85 per hour = $1,700	4,392	6,092	1,309,780

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:

International Aero Engines, LLC: Docket No. FAA–2024–0763; Project Identifier AD–2023–00924–E.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by May 9, 2024.

(b) Affected ADs

None.

(c) Applicability

This AD applies to International Aero Engines Model PW1122G–JM, PW1124G1–JM, PW1124G–JM, PW1127G1–JM, PW1127G1A–JM, PW1127G1B–JM, PW1127G–JM, PW1127GA–JM, PW1129G–JM, PW1130G–JM, PW1133G–JM, and PW1133GA–JM engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

(e) Unsafe Condition

This AD was prompted by an in-flight shutdown caused by the fracture of a low-pressure compressor (LPC) 1st-stage integrally bladed rotor (IBR–1). The FAA is issuing this AD to prevent the failure of the LPC IBR–1. The unsafe condition, if not addressed, could result in damage to the engine, damage to the airplane, and possible loss of the airplane.

(f) Compliance

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

(g) Required Actions

(1) For affected engines with installed LPC key washers having part number (P/N) 5375416, at the next engine shop visit after the effective date of this AD, remove the affected LPC key washers and replace them with LPC key washers and LPC inlet guide vane (IGV) spacers that are eligible for installation.

(2) For affected engines with an installed LPC IBR–1 having P/N 5373831, at the next piece-part exposure after the effective date of this AD, remove the affected LPC IBR–1 and replace with an LPC IBR–1 eligible for installation.

(h) Definitions

For the purposes of this AD:

(1) An ''engine shop visit'' is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

(2) A ''piece-part exposure'' is when the LPC IBR–1 is separated from the LPC module.

(3) ''LPC key washers eligible for installation'' are any LPC key washers having P/N 5375434 or later-approved P/N.

(4) ''LPC IGV spacers eligible for installation'' are any LPC IGV spacers having P/N 5375433 or later-approved P/N.

(5) An ''LPC IBR–1 eligible for installation'' is any LPC IBR–1 having P/N 5373841 or later-approved P/N.

(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 AIR–520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (j) of this AD.

(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 Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238–7655; email: *carol.nguyen@faa.gov.*

(k) Material Incorporated by Reference

None.

Issued on March 19, 2024.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2024–06216 Filed 3–22–24; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2024–0755; Project Identifier AD–2023–00521–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 GEnx–1B64/P1, GEnx–1B64/P2, GEnx–1B67, GEnx–1B67/P1, GEnx–1B67/P2, GEnx–1B70, GEnx–1B70/75/P1, GEnx–1B70/75/P2, GEnx–1B70/P1, GEnx–1B70/P2, GEnx–1B70C/P1, GEnx–1B70C/P2, GEnx–1B74/75/P1, GEnx–1B74/75/P2, GEnx–1B76/P2, GEnx–1B76A/P2, GEnx–2B67, GEnx–2B67B, and GEnx–2B67/P engines. This proposed AD was prompted by a manufacturer evaluation that determined a lower life limit is necessary for certain stages 6–10 compressor rotor spools (stages 6–10 spools) than allowed by the engine shop manual (ESM). This proposed AD would require a one-time inspection of the stages 6–10 spools for previously accomplished blend repairs, a one-time inspection of the blend repairs on the stages 6–10 spools for compliance with the updated allowable limits, and replacement if necessary. 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 May 9, 2024.

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–2024–0755; 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.

Material Incorporated by Reference:

- For service information identified in this NPRM, contact GE, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552–3272; email: *aviation.fleetsupport@ge.com;* website: *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 (817) 222–5110.

FOR FURTHER INFORMATION CONTACT: Alexei Marqueen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238–7178; email: *alexei.t.marqueen@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 **ADDRESSES**. Include ''Docket No. FAA–2024–0755; Project Identifier AD–2023–00521–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 amend this proposal because of those comments.

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Background

The FAA was notified of a manufacturer evaluation, which consisted of a heat transfer analysis, that revealed significant changes in thermal gradients in certain areas of the high-pressure compressor rotor (HPCR) assembly on GE Model GEnx–1B64/P1, GEnx–1B64/P2, GEnx–1B67, GEnx–1B67/P1, GEnx–1B67/P2, GEnx–1B70, GEnx–1B70/75/P1, GEnx–1B70/75/P2, GEnx–1B70/P1, GEnx–1B70/P2, GEnx–1B70C/P1, GEnx–1B70C/P2, GEnx–1B74/75/P1, GEnx–1B74/75/P2, GEnx–1B76/P2, GEnx–1B76A/P2, GEnx–2B67, GEnx–2B67B, and GEnx–2B67/P engines. The results of the heat transfer analysis were used to determine that a lower life limit is required for certain areas of the HPCR. Consequently, the manufacturer re-checked the serviceable and repairable limits of the stages 6–10 spools to determine if they still maintained the threshold limit for serviceability, where it was discovered that two repair procedures listed in the ESM exceeded the updated repair limits at certain locations of the HPCR assembly.

Due to the findings of the previous evaluations, the manufacturer performed an updated analysis and determined that a new threshold for the repairable limits for blend-repaired stages 6–10 spools is necessary. The manufacturer also determined that certain areas of previous blend-repaired stages 6–10 spools may have a lower life limit than the ultimate life limit of the HPCR disks.

This condition, if not addressed, could result in fracture and potential uncontained failure of the stages 6–10 spools, with consequent uncontained