



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0142; Product Identifier 2018-NE-04-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; General Electric Company CF34-8E Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all General Electric Company (GE) CF34-8E turbofan engines. This proposed AD was prompted by a report from GE regarding a quality escape of nonconforming thrust reverser fire seals. This proposed AD would require a one-time inspection of the gap between the core cowl seal and the pylon seal of the thrust reverser for correct gap width, and replacement of the seals, if needed. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We 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 <http://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; telephone 513-552-3272; email aviation.fleetsupport@ge.com. You may view this service information at the FAA, Engine and Propeller Standards 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 <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0142; 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, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** David Bethka, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7129; fax: 781-238-7199; email: david.bethka@faa.gov.

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

We invite 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-2018-0142; Product Identifier 2018-NE-04-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

### **Discussion**

We received a report from the manufacturer about a fire seal gap quality escape on GE CF34-8E turbofan engines. Some thrust reverser fire seals, installed on thrust reverser part numbers (P/Ns) 15G0002-013, 15G0002-014, 15G0003-013, and 15G0003-014, were shipped from a supplier with nonconforming seal gaps.

An analysis by the manufacturer has shown that a gap between the 12 o'clock core cowl seal and pylon seal that is greater than the 1 mm design requirement could result in fire outside the fire zone. This unsafe condition, if not addressed, could result in an uncontrolled fire, damage to the engine, and damage to the airplane.

### **Related Service Information**

We reviewed GE CF34-8E Service Bulletin (SB) 78-0066 R00, dated December 11, 2017. The SB describes procedures for measuring the width of the RTV filled gap between the thrust reverser fire seals at the 12 o'clock core cowl seal and pylon seal installed on thrust reverser P/Ns 15G0002-013, 15G0002-014, 15G0003-013, and 15G0003-014, and replacing with parts eligible for installation, if needed.

### **FAA's Determination**

We are proposing this AD because we 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 a one-time inspection of the gap between the core cowl seal and the pylon seal of the thrust reverser for correct gap width, and replacement of the thrust reverser fire seals, if needed.

### **Costs of Compliance**

We estimate that this proposed AD affects 936 engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection	0.25 work-hours X \$85 per hour = \$21.25	\$0	\$21.25	\$19,890

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements:

#### **On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Remove and replace thrust reverser fire seals	2.75 work-hours X \$85 per hour = \$233.75	\$3,228	\$3,461.75

### **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.

We are 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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

### **Regulatory Findings**

We 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) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and

(4) 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-2018-0142; Product Identifier 2018-NE-04-AD.

**(a) Comments Due Date**

We 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) CF34-8E turbofan engines.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7830, Thrust Reverser.

**(e) Unsafe Condition**

This AD was prompted by a report from GE regarding a quality escape of nonconforming thrust reverser fire seal gaps. We are issuing this AD to inspect for nonconforming thrust reverser fire seal gaps that could result in a fire outside the fire zone. The unsafe condition, if not addressed, could result in an uncontrolled fire, damage to the engine, and damage to the airplane.

**(f) Compliance**

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

**(g) Required Actions**

(1) For all CF34-8E turbofan engines, before the engine accumulates 8,000 flight hours after the effective date of this AD, perform the following one-time inspection, and, if needed, replace the core cowl seal and pylon seal.

(i) Measure the width of the RTV filled gap between thrust reverser fire seals at the junction between 12 o'clock core cowl seal and pylon seal, at the following half thrust reverser locations: engine 1 left hand (LH) half thrust reverser, part number (P/N) 15G0002-013; engine 2 LH half thrust reverser, P/N 15G0002-014; engine 1 right hand (RH) half thrust reverser, P/N 15G0003-013; and engine 2 RH half thrust reverser P/N 15G0003-014.

(ii) If the gap width between the 12 o'clock core cowl seal and the pylon seal is greater than 1 mm, replace both seals with parts eligible for installation to form a new gap of 1 mm or less, prior to return to service.

(2) You may refer to GE CF34-8E Service Bulletin 78-0066 R00, dated December 11, 2017 for guidance on inspecting and replacing the thrust reverser fire seals.

**(h) 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 (i)(1) 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.

**(i) Related Information**

(1) For more information about this AD, contact David Bethka, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7129; fax: 781-238-7199; email: david.bethka@faa.gov.

(2) For service information identified in this AD, contact General Electric Company, 1 Neumann Way, Cincinnati, OH 45215; telephone 513-552-3272; email aviation.fleetsupport@ge.com. You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7759.

Issued in Burlington, Massachusetts, on April 9, 2018.

Robert J. Ganley,  
Manager, Engine and Propeller Standards Branch,  
Aircraft Certification Service.

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