[Federal Register: May 20, 2010 (Volume 75, Number 97)]

[Rules and Regulations]

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[DOCID:fr20my10-2]

### DEPARTMENT OF TRANSPORTATION

### **Federal Aviation Administration**

**14 CFR Part 39** 

[Docket No. FAA-2007-27687; Directorate Identifier 2000-NE-42-AD; Amendment 39-16144; AD 2009-26-09]

RIN 2120-AA64

Airworthiness Directives; General Electric Company CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 Turbofan Engines; Correction

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

**ACTION:** Final rule; correction.

**SUMMARY:** The FAA is correcting airworthiness directive (AD) 2009-26-09, which published in the Federal Register. That AD applies to General Electric Company (GE) CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 turbofan engines. The GE alert service bulletin (ASB) numbers CF34-AL S/B 72 A0212, CF34-AL S/B 72 A0234, and CF34-AL S/B 72 A0235 in the regulatory section are incorrect. This document corrects those ASB numbers. In all other respects, the original document remains the same.

**DATES:** This correction is May 20, 2010. The compliance date of AD 2009-26-09 remains February 11, 2010.

**FOR FURTHER INFORMATION CONTACT:** John Frost, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: john.frost@faa.gov; phone: (781) 238-7756; fax: (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** On January 7, 2010 (75 FR 910), we published a final rule AD, FR Doc, E9-30471, in the Federal Register. That AD applies to (GE) CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 turbofan engines. We need to make the following corrections:

## § 39.13 [Corrected]

- 1. On page 914, in the second column, in paragraph (k)(1)(i), in the fifth and eighth lines, "CF34-AL" is corrected to read "CF34-BJ".
- 2. On page 914, in the second column, in paragraph (k)(2)(iii), in the fifth line, "CF34-AL" is corrected to read "CF34-BJ".

- 3. On page 914, in the second column, in paragraph (l), in the seventh line, "CF34-AL" is corrected to read "CF34-BJ".
- 4. On page 914, in the second column, in paragraph (l)(1), in the second line, "CF34-AL" is corrected to read "CF34-BJ".
- 5. On page 914, in the third column, in paragraph (l)(1)(i), in the seventh and tenth lines, "CF34-AL" is corrected to read "CF34-BJ".
- 6. On page 914, in the third column, in paragraph (m)(1), in the second, ninth, and twelfth lines, "CF34-AL" is corrected to read "CF34-BJ".

Issued in Burlington, Massachusetts, on May 10, 2010.

Peter A. White,

Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 2010-11642 Filed 5-19-10; 8:45 am]

BILLING CODE 4910-13-P

[Federal Register: January 7, 2010 (Volume 75, Number 4)]
[Rules and Regulations]
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From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr07ja10-5]

### **DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2007-27687; Directorate Identifier 2000-NE-42-AD; Amendment 39-16144; AD 2009-26-09]

RIN 2120-AA64

Airworthiness Directives; General Electric Company CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 Turbofan Engines

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is superseding an existing airworthiness directive (AD) for General Electric Company (GE) CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 turbofan engines. That AD currently requires a onetime visual and tactile inspection of certain areas of certain P/N and SN fan disks for an arc-out defect, within 20 engine flight hours after the effective date of that AD. This AD requires inspecting certain fan disks for electrical arc-out indications, removing from service fan disks with electrical arc-out indications, performing tactile and enhanced visual (TEV) inspections, fluorescent penetrant inspections (FPI), and eddy current inspections (ECI) on certain disks that have already had a shop-level inspection, and repetitive FPI and ECI on certain fan disks. This AD results from an updated risk analysis by GE that shows we need to take corrective action that is more stringent. We are issuing this AD to prevent an uncontained failure of the fan disk, which could result in damage to the airplane.

**DATES:** This AD becomes effective February 11, 2010. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of February 11, 2010.

**ADDRESSES:** You can get the service information identified in this AD from General Electric Company via Lockheed Martin Technology Services, 10525 Chester Road, Suite C, Cincinnati, Ohio 45215; telephone (513) 672-8400; fax (513) 672-8422.

The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

**FOR FURTHER INFORMATION CONTACT:** Tara Chaidez, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: tara.chaidez@faa.gov; telephone (781) 238-7773; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR part 39 by superseding AD 2007-07-07R1, Amendment 39-15179 (72 FR 49183, August 28, 2007) and AD 2007-05-16, Amendment 39-14977 (72 FR 10054, March 7, 2007), with a proposed AD. The proposed AD applies to GE CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 turbofan engines. We published the proposed AD in the Federal Register on April 17, 2009 (74 FR 17799). That action proposed to require:

- Replacing certain fan disks installed on regional jets within 15 days after the effective date of the proposed AD, and
- On-wing and shop-level inspections of fan disks for electrical arc-out defects on fan disks installed on regional jets, and
- Shop-level inspections of fan disks for electrical arc-out defects on fan disks installed on business jets.

# **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

### **Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

# Request To Change the Compliance Requirements for Previously Inspected CF34-3B Tier 3 Disks

Two commenters, GE and Bombardier Flex, ask us to change the compliance requirements for previously inspected CF34-B tier 3 disks from "within 3,500 cycles-since-last inspection (CSLI), but no later than March 19, 2012" to "at the next shop visit." The commenters state that requiring "within 3,500 CSLI, but no later than March 19, 2012," make the requirements more conservative than the tier 1 and tier 2 disk reinspection programs.

We agree. We have changed paragraph (m)(2) of this AD from "within 3,500 CSLI, but no later than March 19, 2012" to "at the next shop visit."

# Request To Include Table 2 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008

One commenter asks us to include Table 2 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, in the AD. The commenter states that many owners, lessors, or their respective representatives are routinely denied access to the manufacturer's Web site where the referenced SBs are archived. The commenter states that this makes it very difficult, if not impossible, to evaluate and schedule compliance with this AD.

We don't agree. If operators and others who need the service information can't get the service information from the manufacturer, they can contact the individual or office identified in paragraph (p) of this AD. We didn't change the AD.

# Request To Allow an Alternative Method of Compliance (AMOC) for the Inspection Requirements of This AD

One commenter, Air Wisconsin, asks us to allow using the inspections specified in 72-21-00, Inspection, as specified in AD 2002-05-02. The commenter states that this is the same requirement as specified in the accomplishment instructions of the proposed AD.

We disagree. AD 2002-05-02 requires adding the specified inspections to the airworthiness limitation section of the engine manual and to the operators approved maintenance program. We do agree that actions performed under one AD may result in credit for actions performed in another AD. We didn't change this AD.

## Request To Add a Drawdown to Paragraph (g) of the Proposed AD

The same commenter asks us to change paragraph (g) of the proposed AD from "within 8,000 CSN" to "before accumulating 8,000 CSN or within 15 days after the effective date of this AD, whichever is later." Paragraph (g) currently requires replacing the disks before accumulating 8,000 CSN. The commenter stated that he would like the same 15-day allowance that we provided in paragraph (f) for parts that have close to 8,000 CSN on the effective date of this AD.

We don't agree. The new life limit is 8,000 CSN on the effective date of this AD. We removed the 15-day allowance in paragraph (f) so that both groups use the new life limit.

## Request To Use SEI-756, 72-00-00, Special Procedure 60

The same commenter requests that eddy current inspections (ECIs) performed using SEI-756, 72-21-00, Special Procedure 60 or GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, be acceptable in addition to GE ASB CF34-AL S/B 72A-0252, Dated October 27, 2008. The commenter states that paragraphs (h)(1)(ii), (h)(2)(iii), (l)(1)(ii), and (l)(2)(iii) all say "Use paragraph 3.A. of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI."

The instructions for performing the repetitive ECI in GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, and ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, refer to SEI-756, 72-00-00, SPECIAL PROCEDURE 60–EDDY CURRENT INSPECTION (ECI) PROCEDURES AND REQUIREMENTS OF CRITICAL HARDWARE."

The commenter wants to be able to track all the requirements to one service bulletin or specific procedure instead of several different service bulletins.

We don't agree. The ECI referenced in the three documents above are not the same. The ASBs mandated by this AD provide a more rigorous ECI. We didn't change the AD.

# Request To Use a Single ASB for Each Set of Engine Models

The same commenter requests that TEV inspections, FPIs, and ECIs performed using GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, be acceptable to meet the requirements of GE ASB CF34-AL S/B 72A-0253, dated October 27, 2008. The commenter wants to be able to track all the requirements to one service bulletin or specific procedure instead of several different service bulletins. The commenter notes that the instructions for performing the ECI are the same in all three documents.

We partially agree. The procedures for performing the TEV inspection, the FPI, and the ECI are the same in the two ASBs referenced above. We changed paragraphs (h)(1)(i), (i)(1)(i), (j)(1), and (j)(2) of the proposed AD as follows:

- Paragraph (h)(1)(i) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, \* \* \* "
- Paragraph (i)(1)(i) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, \* \* \* "
- Paragraph (j)(1) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, \* \* \* "
- Paragraph (j)(2) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, \* \* \*"

Since the accomplishment procedures in GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, and the procedures in GE ASB CF34-BJ S/B 72-0234, dated October 27, 2008, are also the same, we changed paragraphs (k)(1)(i), (l)(1)(i), (m)(1), and (m)(2) of the proposed AD as follows:

- Paragraph (k)(1)(i) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, \* \* \* "
- Paragraph (l)(1)(i) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, \* \* \* "
- Paragraph (m)(1) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, \* \* \* "
- Paragraph (m)(2) from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, \* \* \* " to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0234, dated October 27, 2008, \* \* \* "

# Request To Change Paragraph (j)(2) of the Proposed AD

The same commenter requests that we preface paragraph (j)(2) of the proposed AD with "Unless already done." We believe the commenter wants to avoid having to perform the same inspection more than once on a disk.

We don't agree that the change is needed. Paragraph (e) of the proposed AD states, "You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done."

# Request To Correct a Typographical Error in Paragraph (j)(1) of the Proposed AD

Two commenters, GE and Air Wisconsin, ask us to correct a typographical error in paragraph (j)(1) of the proposed AD. The commenters inform us that the reference to GE ASB CF34-AL S/B 72-A0253, Revision 4, dated October 27, 2008, is not correct. The commenters inform us that GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, is the correct reference.

We agree. We have changed paragraph (j)(1) of this AD from "GE ASB CF34-AL S/B 72-A0253, Revision 4, dated October 27, 2008" to "GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008."

# Recommendation To Add Removal Requirements to Paragraphs (h), (i), (k), and (l) of the Proposed AD $\,$

One commenter, GE, recommends adding an additional, repeat section to paragraphs (h), (i), (k), and (l) of the proposed AD. The commenter feels adding the removal requirements to the paragraphs will enhance clarity of the AD.

We don't agree. The mandatory terminating actions are already specified in paragraph (o) of the proposed AD and don't need to be repeated. We didn't change the AD.

# Request To Correct an Engine Model Reference in Paragraphs (k), (l), and (m) of the Proposed AD

One commenter, GE, informs us that paragraphs (k), (l), and (m) in the proposed AD omit reference to the CF34-3A1 application and that the fan drive shaft life limit is incorrectly applied to the CF34-1A application. The commenter states that this is the same requirement as specified in the accomplishment instructions of the proposed AD.

We agree. We changed paragraphs (k), (l), and (m) of the proposed AD from "For CF34-1A turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-3A, CF34-3A2, and CF34-3B turbofan engines \* \* \*" to "For CF34-3A1 turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-1A, CF34-3A, CF34-3A2, and CF34-3B turbofan engines \* \* \*"

## Request To Reference to FPI and ECI in Paragraphs (k)(1)(i) of the Proposed AD

The same commenter asks us to change paragraphs (k)(1)(i) to add a reference to the FPI and ECI. The commenter states that the paragraph currently requires TEV inspection, FPI, and ECI, but the last sentence says only "to perform the TEV inspection." The commenter feels the paragraph will be more clear by saying "To perform the TEV inspection, FPI, and ECI."

We agree. We changed paragraph (k)(1)(i) of the proposed AD from "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection" to "Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0212, Revision 04, dated October 27,

2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI."

### Request To Correct a Typographical Error in Paragraphs (l)(1)(i) of the Proposed AD

The same commenter asks us to correct the typographical error of "CIS" in paragraph (l)(1)(i) to "CSN". The commenter states that the paragraph should be changed to be consistent with the risk assessment.

We agree. We changed paragraph (l)(1)(i) of the proposed AD from "or within 3,500 CIS after September 12, 2007," to "or within 3,500 CSN after September 12, 2007,".

# Request To Change Paragraphs (h), (i), (j), (k), (l), and (m) of the Proposed AD to Specify RJ and BJ Model Engines

The same commenter asks us to revise paragraphs (h), (i), (j), (l), and (m) to clarify the instructions related to operators who fly a regional jet (RJ) with the CF34-3A1 engine as a business jet (BJ) application. The commenter states that GE ASBs CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; CF34-AL S/B 72-A0252, dated October 27, 2008; CF34-AL S/B 72-A0253, dated October 27, 2008; apply to both RJ operators and also to a small number of BJ operators who fly under the RJ manual. These BJ applications may include both CF34-3B1 and CF34-3A1 models. The proposed AD distinguishes between RJ and BJ applications based on engine model, and in the case of the CF34-3A1 model, the life limit of the fan drive shaft, P/N 6036T78P02. Modifying the proposed AD to identify the applications as RJ and BJ, and defining the RJ and BJ designations, would more clearly identify affected populations and still meet the FAA's purpose in issuing ADs.

We don't agree. The CF34-1A is used on both the RJ airplane and the BJ airplane. The engine is modified by service bulletins to allow it to be used on one configuration or the other. There is nothing to prevent an engine that was installed on a BJ airplane from being modified and installed on an RJ airplane: By designating the inspection criteria based on the life limit of the fan drive shaft, we are making the regulatory requirements of the proposed AD specific to the engine configuration instead of the operational configuration. We didn't change the proposed AD.

### **Conclusion**

We have carefully reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

## **Costs of Compliance**

We estimate that this AD will affect 18 engines installed on airplanes of U.S. registry. We also estimate that it would take about 2 work-hours per engine to perform the required actions, and that the average labor rate is \$80 per work-hour. No parts are required, so parts would cost about \$0. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$2,880.

### **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.

# **Regulatory Findings**

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will 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 that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary at the address listed under ADDRESSES.

# List of Subjects in 14 CFR Part 39

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

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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 removing Amendment 39-15179 (72 FR 49183, August 28, 2007), and by adding a new airworthiness directive, Amendment 39-16144, to read as follows:

# AIRWORTHINESS DIRECTIVE



www.faa.gov/aircraft/safety/alerts/ www.gpoaccess.gov/fr/advanced.html

**CORRECTION:** [Federal Register: May 20, 2010 (Volume 75, Number 97); Page 28188; www.access.gpo.gov/su\_docs/aces/aces/40.html]

**2009-26-09** General Electric Company: Amendment 39-16144. Docket No. FAA-2007-27687; Directorate Identifier 2000-NE-42-AD.

#### **Effective Date**

(a) This airworthiness directive (AD) becomes effective February 11, 2010.

#### **Affected ADs**

(b) This AD supersedes AD 2007-05-16, Amendment 39-14977 and AD 2007-07-07R1, Amendment 39-15179.

### **Applicability**

(c) This AD applies to General Electric Company (GE) CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1 turbofan engines, with fan disks part numbers (P/Ns) 5921T18G01, 5921T18G09, 5921T18G10, 5921T54G01, 5922T01G02, 5922T01G04, 5922T01G05, 6020T62G04, 6020T62G05, 6078T00G01, 6078T57G01, 6078T57G02, 6078T57G03, 6078T57G04, 6078T57G05, and 6078T57G06 installed. These engines are installed on, but not limited to, Bombardier Canadair airplane models CL-600-2A12, -2B16, and -2B19.

### **Unsafe Condition**

(d) This AD results from an updated risk analysis by GE that shows we need to take corrective action that is more stringent. We are issuing this AD to prevent an uncontained failure of the fan disk, which could result in damage to the airplane.

## **Compliance**

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

### **Removing Certain Fan Disks From Service**

- (f) For fan disks listed by P/N and serial number (SN) in Table 2 of GE Alert Service Bulletin (ASB) CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; or in Table 2 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, that have 8,000 CSN or more on the effective date of this AD, remove fan disks from service.
- (g) For fan disks listed by P/N and serial number (SN) in Table 2 of GE Alert Service Bulletin (ASB) CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; or in Table 2 of GE ASB

CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, that have fewer than 8,000 CSN on the effective date of this AD, remove fan disks from service before accumulating 8,000 CSN.

### **Inspections of Tier 1 Fan Disks**

(h) For CF34-3A1 engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 22,000 CSN, and CF34-3B1 turbofan engines with Tier 1 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, do the following:

# Tactile and Enhanced Visual (TEV) Inspections, Fluorescent Penetrant Inspections (FPI), and Eddy Current Inspections (ECI)

- (1) For Tier 1 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:
- (i) Perform a TEV inspection, an FPI, and an ECI on the Tier 1 fan disks within 650 cycles-inservice (CIS) after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.
- (ii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 cycles-since-last inspection (CSLI). Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.
- (2) For Tier 1 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:
- (i) For Tier 1 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.
- (ii) For Tier 1 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.
- (iii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.

### **Inspections of Tier 2 Fan Disks**

(i) For CF34-3A1 engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 22,000 CSN, and CF34-3B1 turbofan engines with Tier 2 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, do the following:

## TEV Inspections, FPI, and ECI

- (1) For Tier 2 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:
- (i) Perform a TEV inspection, an FPI, and an ECI on the Tier 2 fan disks within 2,000 CIS after the effective date of this AD, or within 5,000 CIS after September 12, 2007, or by March 19, 2012, whichever occurs first. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment

Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.

- (ii) Thereafter, perform repetitive eddy current inspections on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.
- (2) For Tier 2 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, do the following:
- (i) For Tier 2 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.
- (ii) For Tier 2 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the ECI.
- (iii) Thereafter, perform repetitive ECI on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0252, dated October 27, 2008, to perform the repetitive ECI.

# **Inspections of Tier 3 Fan Disks**

(j) For CF34-3A1 engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 22,000 CSN, and CF34-3B1 turbofan engines with Tier 3 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, do the following:

## **TEV Inspections, FPI, and ECI**

- (1) For Tier 3 fan disks not already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection, an FPI, and an ECI on the Tier 3 fan disks within 5,000 CIS after September 12, 2007, or by March 19, 2012, whichever is earlier. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.
- (2) For Tier 3 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-AL S/B 72-A0233, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection and an ECI on the Tier 3 fan disks at the next shop visit. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-AL S/B 72-A0253, dated October 27, 2008, to perform the TEV inspection and ECI.
  - (3) Repetitive ECI on the Tier 3 fan disks are not required.

# **Inspections of Tier 1 Fan Disks**

(k) For CF34-3A1 turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-1A, CF34-3A, CF34-3A2, and CF34-3B turbofan engines with Tier 1 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, do the following:

## TEV Inspections, FPI, and ECI

- (1) For Tier 1 fan disks not already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue:
- (i) Perform a TEV inspection, FPI, and ECI on the Tier 1 fan disks within 350 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.
- (ii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.
- (2) For Tier 1 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, do the following:
- (i) For Tier 1 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.
- (ii) For Tier 1 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 1 fan disks within 3,000 CSLI after the effective date of this AD. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.
- (iii) Thereafter, perform repetitive ECI on the Tier 1 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.

# **Inspections of Tier 2 Fan Disks**

(l) For CF34-3A1 turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-1A, CF34-3A, CF34-3A2, and CF34-3B turbofan engines with Tier 2 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, do the following:

## TEV Inspections, FPI, and ECI

- (1) For Tier 2 fan disks not already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, do the following:
- (i) Perform a TEV inspection, FPI, and ECI on the Tier 2 fan disks within 2,000 CIS after the effective date of this AD, or within 3,500 CSN after September 12, 2007, or by March 19, 2012, whichever occurs first. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.
- (ii) Thereafter, perform repetitive ECI on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.
- (2) For Tier 2 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, do the following:
- (i) For Tier 2 fan disks with 2,500 or more CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 500 CIS after the effective date of this AD. Use paragraph 3.A of

the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.

- (ii) For Tier 2 fan disks with fewer than 2,500 CSLI on the effective date of this AD, perform an ECI on the Tier 2 fan disks within 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the ECI.
- (iii) Thereafter, perform repetitive ECI on the Tier 2 fan disks within intervals of 3,000 CSLI. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0235, dated October 27, 2008, to perform the repetitive ECI.

## **Inspections of Tier 3 Fan Disks**

(m) For CF34-3A1 turbofan engines with fan drive shaft, P/N 6036T78P02, and airworthiness limitation section life limit of 15,000 CSN, CF34-1A, CF34-3A, CF34-3A2, and CF34-3B turbofan engines with Tier 3 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, do the following:

## TEV Inspections, FPI, and ECI

- (1) For Tier 3 fan disks not already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection, FPI, and ECI on the Tier 3 fan disks within 3,500 CIS after September 12, 2007, or by March 19, 2012, whichever is earlier. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection, FPI, and ECI.
- (2) For Tier 3 fan disks, listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008; already inspected using GE ASB CF34-BJ S/B 72-A0212, Revision 03, dated June 27, 2007, or earlier issue, perform a TEV inspection and an ECI on the Tier 3 fan disks at the next shop visit. Use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0212, Revision 04, dated October 27, 2008, or use paragraph 3.A of the Accomplishment Instructions of GE ASB CF34-BJ S/B 72-A0234, dated October 27, 2008, to perform the TEV inspection and ECI.
  - (3) Repetitive ECI on the Tier 3 fan disks are not required.

### **Alternative Methods of Compliance**

(n) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

## **Mandatory Terminating Action**

(o) Remove from service, Tier 1 and Tier 2 fan disks listed by P/N, SN, and Tier in Table 1 of GE ASB CF34-AL S/B 72-A0233, Revision 04, dated October 27, 2008; or CF34-BJ S/B 72-0212, Revision 04, dated October 27, 2008, before they exceed their limited life cycles or September 30, 2018, whichever occurs first.

## **Related Information**

(p) Contact Tara Chaidez, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: tara.chaidez@faa.gov; telephone (781) 238-7773; fax (781) 238-7199, for more information about this AD.

## **Material Incorporated by Reference**

(q) You must use the service information specified in the following Table 1 to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of the documents listed in the following Table 1 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact General Electric Company via Lockheed Martin Technology Services, 10525 Chester Road, Suite C, Cincinnati, Ohio 45215; telephone (513) 672-8400; fax (513) 672-8422, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

**Table 1 – Incorporation by Reference** 

Service Bulletin No.	Page	Revision	Date
CF34-AL S/B 72-A0233 Total Pages – 107	ALL	04	October 27, 2008
CF34-AL S/B 72-A0252 Total Pages – 22	ALL	Original	October 27, 2008
CF34-AL S/B 72-A0253 Total Pages – 77	ALL	Original	October 27, 2008
CF34-BJ S/B 72-A0212 Total Pages – 111	ALL	04	October 27, 2008
CF34-BJ S/B 72-A0234 Total Pages – 82	ALL	Original	October 27, 2008
CF34-BJ S/B 72-A0235 Total Pages – 20	ALL	Original	October 27, 2008

Issued in Burlington, Massachusetts, on December 11, 2009.

Francis A. Favara,

Manager, Engine and Propeller Directorate,

Aircraft Certification Service.