

[Federal Register: April 9, 2007 (Volume 72, Number 67)]
[Rules and Regulations]
[Page 17379-17381]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr09ap07-6]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-20944; Directorate Identifier 2003-NE-64-AD; Amendment 39-15018; AD 2007-08-01]

RIN 2120-AA64

Airworthiness Directives; General Electric Company CT7-5, -7, and -9 Series Turboprop 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) CT7-5A2, -5A3, -7A, -7A1, -9B, -9B1, and -9B2, -9C, -9C3, -9D, and -9D2 turboprop engines, with certain part number (P/N) and serial number stage 2 turbine aft cooling plates installed. That AD currently requires a onetime eddy current inspection (ECI) of boltholes in certain P/N stage 2 turbine aft cooling plates. This AD expands the population of affected CT7 turboprop engine models, but reduces the number of cooling plates affected. It also requires a onetime ECI of boltholes in certain P/N stage 2 turbine aft cooling plates with specific serial numbers. This AD results from the manufacturer expanding the list of affected engine models and identifying the affected stage 2 turbine aft cooling plates by serial number. We are issuing this AD to prevent separation of the stage 2 turbine aft cooling plate, resulting in uncontained engine failure and damage to the airplane.

DATES: This AD becomes effective May 14, 2007. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of May 14, 2007.

ADDRESSES: You can get the service information identified in this AD from General Electric Aircraft Engines CT7 Series Turboprop Engines, 1000 Western Ave, Lynn, MA 01910; telephone (781) 594-3140, fax (781) 594-4805.

You may examine the AD docket on the Internet at <http://dms.dot.gov> or in Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Mark Bouyer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; telephone (781) 238-7755; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to GE CT7-5A2, -5A3, -7A, -7A1, -9B, -9B1, and -9B2 turboprop engines, with certain P/N and serial number stage 2 turbine aft cooling plates installed. We published the proposed AD in the Federal Register on March 31, 2006 (71 FR 16248). That action proposed to expand the population of affected CT7 turboprop engine models required to undergo a onetime ECI of boltholes in certain P/N stage 2 turbine aft cooling plates. That action also proposed to reduce the number of cooling plates affected by identifying the serial numbers.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in ADDRESSES. Comments will be available in the AD docket shortly after the DMS receives them.

Comments

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

Clarification of ECI Requirements

GE suggests that we clarify paragraph (f) of this AD to limit the required ECI to stage 2 turbine aft cooling plates that are being returned to service. This change would eliminate any requirement to ECI cooling plates that are not going to be reused. We agree. If the cooling plate is not going to be reused, there is no need to ECI it immediately after it is removed. Paragraph (h) of this AD requires an ECI of all cooling plates affected by this AD before they are returned to service. We made the clarification to paragraph (f).

Clarification of Onetime Inspection

GE proposes that we add a terminating action statement to clarify that the ECI is a onetime inspection and repetitive inspections of the stage 2 turbine aft cooling plate is unnecessary. We do not agree. This information is already included in paragraph (f), which specifies that the inspection is a onetime ECI. We did not change the AD.

Question on Compliance Threshold of 6,000 Cycles-in-Service (CIS)

GE also questions whether the calculated compliance threshold of 6,000 CIS is viable given the amount of time required to publish the AD. We do not agree. The number of engine cycles that will accumulate during the AD review process will not change the safety assessment that is based on the calculated compliance time. We did not change the 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 494 engines installed on airplanes of U.S. registry. We also estimate that it will take about 1 work-hour per engine to perform the actions, and that the average labor rate is \$80 per work-hour. Based on the number of cracks found in the inspected engines, we estimate that 2.5 percent of the 494 engines will require replacing stage 2 turbine aft cooling plates because of rejection by the onetime ECI. Required parts will cost about \$17,000 per engine. Based on these figures, we estimate the total cost of the AD to U.S. operators to be \$243,520.

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 39-14247 70 FR 54835, September 19, 2005, and by adding a new airworthiness directive, Amendment 39-15018, to read as follows:



2007-08-01 General Electric Company: Amendment 39-15018. Docket No. FAA-2005-20944; Directorate Identifier 2003-NE-64-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective May 14, 2007.

Affected ADs

(b) This AD supersedes AD 2005-18-01, Amendment 39-14247.

Applicability

(c) This AD applies to General Electric Company (GE) CT7-5A2/-5A3/-7A/-7A1/-9B/-9B1/-9B2/-9C/-9C3/-9D/-9D2 turboprop engines with stage 2 turbine aft cooling plates, part number (P/N) 6064T07P01, 6064T07P02, 6064T07P05, or 6068T36P01 installed. These engines are installed on, but not limited to, Construcciones Aeronauticas, SA CN-235 series and SAAB Aircraft AB SF340 series airplanes.

Unsafe Condition

(d) This AD results from the manufacturer expanding the list of affected engine models and identifying the affected stage 2 turbine aft cooling plates by serial number. We are issuing this AD to prevent separation of the stage 2 turbine aft cooling plate, resulting in uncontained engine failure and damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed at the next engine or hot section module shop visit, but before accumulating an additional 6,000 cycles-in-service after the effective date of the AD, unless already done.

Onetime Eddy Current Inspection (ECI)

(f) Perform a onetime ECI of the stage 2 turbine aft cooling plates P/N 6064T07P01, 6064T07P02, 6064T07P05, or 6068T36P01, that are listed by serial number in Section 4, Appendix A, of GE Alert Service Bulletin (ASB) No. CT7-TP S/B 72-A0464, Revision 04, dated December 12, 2005, and that will be returned to service. Use 3.B.(1) through 3.B.(3) of GE ASB No. CT7-TP S/B 72-A0464, Revision 4, dated December 12, 2005 to perform the inspection.

(g) For stage 2 turbine aft cooling plates that do not pass the Return to Service Criteria, do either of the following:

(1) Replace the stage 2 turbine aft cooling plate with a new cooling plate that has a serial number that is not listed in Section 4, Appendix A, of GE ASB No. CT7-TP S/B 72-A0464, Revision 04, dated December 12, 2005, or

(2) Replace the stage 2 turbine aft cooling plate with a cooling plate that meets the acceptance criteria of 3.B.(1) through 3.B.(3) of GE ASB No. CT7-TP S/B 72-A0464, Revision 4, dated December 12, 2005.

(h) After the effective date of this AD, do not install any stage 2 turbine aft cooling plates with serial numbers identified in Section 4, Appendix A, without inspecting the cooling plate as specified in 3.B.(1) through 3.B.(3) of GE ASB No. CT7-TP S/B 72-A0464 Revision 04, December 12, 2005.

Previous Credit

(i) Eddy current inspections of the stage 2 turbine aft cooling plate boltholes done before the effective date of this AD that use GE ASB No. CT7-TP S/B 72-A0464, dated February 25, 2003; or Revision 1, dated March 12, 2003; or Revision 2, dated May 9, 2003; or Revision 3, dated July 23, 2004, comply with the requirements specified in this AD.

Definition of Engine or Hot Section Module Shop Visit

(j) For the purposes of this AD, an engine or hot section module shop visit is defined as the introduction of the engine or hot section module into a shop that includes separating major case flanges.

Alternative Methods of Compliance

(k) 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.

Related Information

(l) Contact Mark Bouyer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: mark.bouyer@faa.gov; telephone (781) 238-7755; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(m) You must use General Electric Alert Service Bulletin No. CT7-TP S/B 72-A0464, Revision 04, dated December 12, 2005, to perform the actions required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact General Electric Aircraft Engines CT7 Series Turboprop Engines, 1000 Western Ave, Lynn, MA 01910; telephone (781) 594-3140; fax (781) 594-4805 for a copy of this service information. You may review copies at the FAA, New England Region, Office of the Regional Counsel, 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>.

Issued in Burlington, Massachusetts, on April 2, 2007.

Peter A. White,

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

[FR Doc. E7-6446 Filed 4-6-07; 8:45 am]