

[Federal Register Volume 79, Number 133 (Friday, July 11, 2014)]
[Rules and Regulations]
[Pages 39956-39958]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2014-16184]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0876; Directorate Identifier 2013-NE-27-AD; Amendment 39-17895; AD 2014-14-01]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines. This AD requires modification of the engine by removing an electronic engine control (EEC) incorporating EEC software standard A14 or earlier and installing an EEC eligible for installation. This AD was prompted by an uncontained multiple turbine blade failure on an RR RB211 Trent 772B turbofan engine. We are issuing this AD to prevent failure of the intermediate-pressure (IP) turbine disk drive arm or burst of the high-pressure turbine disk, which could lead to uncontained engine failure and damage to the airplane.

DATES: This AD becomes effective August 15, 2014.

ADDRESSES: For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; or Web site: <https://www.aeromanager.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

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-2013-0876; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30,

West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Kenneth Steeves, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7765; fax: (781) 238-7199; email: Kenneth.Steeves@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM was published in the Federal Register on March 3, 2014 (79 FR 11722). The NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

An operator of an A330 aeroplane fitted with RR Trent 772B engines experienced an engine uncontained multiple turbine blade failure. Investigation results showed that High-Pressure/Intermediate-Pressure (HP/IP) oil vent tubes may be affected by carbon deposit and may also be damaged by their outer heat shields, which in this case led to combustion inside the tube. The consequent chain of events resulted in an engine internal fire which caused the failure of the IP turbine disc drive arm.

This condition, if not corrected, could lead to uncontained multiple turbine blade failures or an HP/IP turbine disc burst, possibly resulting in damage to, and reduced control of, the aeroplane.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

Request To Modify Description of Failure Mode

RR requested that we define the failure mode as IP turbine disc drive arm failure and multiple IP turbine blade release to be consistent with descriptions in the RR service bulletin and the European Aviation Safety Agency (EASA) AD.

We disagree. EASA AD 2013-0190, dated August 20, 2013, states that the failure mode is multiple turbine blade failures or HP/IP turbine disc burst. We did not change this AD.

Request That FAA Require the Same Compliance Date as the EASA AD

RR requested that we modify the compliance date to be consistent with the compliance date required in EASA AD 2013-0190, dated August 20, 2013.

We disagree. EASA AD 2013-0190, dated August 20, 2013 required compliance by December 31, 2018. We proposed compliance at next shop visit or December 31, 2018, whichever comes first, to achieve more timely mitigation of the unsafe condition. We did not change this AD.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

We estimate that this AD affects about 72 engines installed on airplanes of U.S. registry. We also estimate that it will take about 1 hour per engine to comply with this AD. The average labor rate is \$85 per hour. There are no required parts. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$6,120.

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 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 this AD:

- (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 to the extent that it justifies making a regulatory distinction, 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.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA 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 adding the following new airworthiness directive (AD):



2014-14-01 Rolls-Royce plc: Amendment 39-17895; Docket No. FAA-2013-0876; Directorate Identifier 2013-NE-27-AD.

(a) Effective Date

This AD becomes effective August 15, 2014.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines prior to engine serial number 42066.

(d) Reason

This AD was prompted by an uncontained multiple turbine blade failure on an RR RB211 Trent 772B turbofan engine. We are issuing this AD to prevent failure of the intermediate-pressure turbine disc drive arm or burst of the high-pressure turbine disk, which could lead to uncontained engine failure and damage to the airplane.

(e) Actions and Compliance

After the effective date of this AD, at the next engine shop visit or by December 31, 2018, whichever occurs first, modify the engine by removing any electronic engine control (EEC) that incorporates EEC software standard A14 or earlier and installing an EEC eligible for installation.

(f) Installation Prohibition

After modification of an engine as required by paragraph (e) of this AD, do not install an EEC with software standard A14 or earlier into that engine.

(g) Definitions

(1) For the purpose of this AD, 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) For the purpose of this AD, an EEC "eligible for installation" is any EEC that does not contain software standard A14 or earlier.

(h) Credit for Previous Actions

If before the effective date of this AD you removed from an engine any EEC that had EEC software standard A14 or earlier and your engine no longer has an EEC with software standard A14 or earlier, you have met the requirements of this AD.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact Kenneth Steeves, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7765; fax: (781) 238-7199; email: Kenneth.Steeves@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2013-0190, dated August 20, 2013, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2013-0876>.

(3) RR Alert Service Bulletin No. RB.211-73-AG829, dated April 18, 2012, which is not incorporated by reference in this AD, can be obtained from Rolls-Royce plc, using the contact information in paragraph (j)(4) of this AD.

(4) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; or Web site: <https://www.aeromanager.com>.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on June 30, 2014.
Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.