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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-28053; Directorate Identifier 2007-NE-18-AD; Amendment 39-15590; AD 2008-13-27]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Arrius 2F Turboshaft Engines

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

This AD is issued following a case of non-commanded in-flight engine shut-down which occurred on an ARRIUS 2F turboshaft engine, following the seizing of the gas generator. The result may be an emergency autorotation landing or, at worst, an accident.

Investigations of this event have revealed that the seizing of the gas generator was caused by the fracture of the separator cage of the gas generator front bearing, due to high-cycle fatigue cracks initiated in the lubrication slots of the separator cage.

We are issuing this AD to prevent uncommanded shutdown of the engine, which could lead to an accident.

DATES: This AD becomes effective August 6, 2008. The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 6, 2008.

ADDRESSES: 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: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on August 28, 2007 (72 FR 49236). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states that:

This AD is issued following a case of non-commanded in-flight engine shut-down which occurred on an Arrius 2F turboshaft engine, following the seizing of the gas generator. The result may be an emergency autorotation landing, or, at worst, an accident.

Investigations of this event have revealed that the seizing of the gas generator was caused by the fracture of the separator cage of the gas generator front bearing, due to high-cycle fatigue cracks initiated in the lubrication slots of the separator cage.

Modification Tf 12 introduces a new gas generator front bearing without lubrication slots on the separator cage.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Change to the Compliance End Date

We have changed the compliance time from "at the next shop visit after the effective date of the AD, but no later than April 30, 2008" to "at the next shop visit after the effective date of this AD, but no later than 30 days after the effective date of this AD" to allow the operators more time to complete the requirements of this AD.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting the AD with the changes described previously. We determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Differences Between This AD and the MCAI or Service Information

The Mandatory Continuing Airworthiness Information (MCAI) and service information require the operators to comply with the requirements at the next shop visit after the effective date of the AD, but no later than April 30, 2008. We require compliance at the next shop visit after the effective date of this AD, but no later than 30 days after the effective date of this AD.

Costs of Compliance

We estimate that this AD will affect 61 engines of U.S. registry. We also estimate that it will take about 10 work-hours per engine to comply with this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$111,440. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$6,846,640. Our cost estimate is exclusive of possible warranty coverage.

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); 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 regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

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.

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 AD:



2008-13-27 Turbomeca S.A.: Amendment 39-15590. Docket No. FAA-2007-28053; Directorate Identifier 2007-NE-18-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective August 6, 2008.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Turbomeca S.A. Arrius 2F turboshaft engines that have not incorporated Turbomeca Modification Tf 12A. These engines are installed on, but not limited to, Eurocopter EC120B helicopters.

Reason

- (d) European Aviation Safety Agency (EASA) AD No. 2007-0057, dated March 1, 2007, states:

This AD is issued following a case of non-commanded in-flight engine shut-down which occurred on an Arrius 2F turboshaft engine, following the seizing of the gas generator. The result may be an emergency autorotation landing, or, at worst, an accident.

Investigations of this event have revealed that the seizing of the gas generator was caused by the fracture of the separator cage of the gas generator front bearing, due to high-cycle fatigue cracks initiated in the lubrication slots of the separator cage.

Modification Tf12 introduces a new gas generator front bearing without lubrication slots on the separator cage.

We are issuing this AD to prevent uncommanded shutdown of the engine, which could lead to an accident.

Actions and Compliance

- (e) Unless already done, do the following actions.

(1) At the next engine shop visit after the effective date of this AD, but no later than 30 days after the effective date of this AD, replace the engine module 02 with a module that incorporates Turbomeca Modification Tf 12A. Turbomeca Modification Tf 12A installs into the engine module 02 a new gas generator front bearing without lubrication slots on the separator cage.

(2) Use the Instructions to be Incorporated section of Turbomeca Mandatory Service Bulletin No. 319 72 4012, Update No. 1, dated September 19, 2006, to do the actions in paragraph (e)(1) of this AD.

FAA AD Differences

(f) The Mandatory Continuing Airworthiness Information (MCAI) and service information require the operators to comply with the requirements at the next shop visit after the effective date of the AD, but no later than April 30, 2008. We require compliance at the next shop visit after the effective date of this AD, but no later than 30 days after the effective date of this AD.

Other FAA AD Provisions

(g) Alternative Methods of Compliance (AMOCs): The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(h) Refer to EASA AD 2007-0057, dated March 1, 2007, for related information.

(i) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(j) You must use Turbomeca Mandatory Service Bulletin No. 319 72 4012, Update No. 1, dated September 19, 2006, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; telephone (33) 05 59 74 40 00, fax (33) 05 59 74 45 15.

(3) 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>.

Issued in Burlington, Massachusetts, on June 18, 2008.

Diane Cook,

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

[FR Doc. E8-14311 Filed 7-1-08; 8:45 am]