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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0710; Directorate Identifier 2010-NE-26-AD; Amendment 39-16434; AD 2010-19-06]

RIN 2120-AA64

Airworthiness Directives; Turbomeca Arriel 1 Series Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

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:

Metallurgical non-conformities have been found when performing quality inspections during production of Arriel 1 gas generator (GG) second stage turbine discs introduced by Turbomeca Modification TU347 (P/N 0 292 25 040 0). Analysis has concluded that the approved life limit of the post-TU347 GG second stage turbine disc needs to be reduced to 2,500 GG cycles.

We are issuing this AD to prevent failure of the gas generator second stage turbine disc which could result in the release of high energy debris and damage to the helicopter.

DATES: This AD becomes effective October 6, 2010.

We must receive comments on this AD by October 21, 2010.

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: (202) 493-2251.

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 the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Richard Woldan, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: richard.woldan@faa.gov; telephone (781) 238-7136; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, previously issued EASA AD 2010-0101-E, dated June 4, 2010, and has now issued a revision to that AD, which is AD 2010-0101R1, dated August 4, 2010 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

Metallurgical non-conformities have been found when performing quality inspections during production of Arriel 1 gas generator (GG) second stage turbine discs introduced by Turbomeca Modification TU347 (P/N 0 292 25 040 0). Analysis has concluded that the approved life limit of the post-TU347 GG second stage turbine disc needs to be reduced to 2,500 GG cycles.

Since issuance of AD 2010-0101-E, Turbomeca has introduced a reinforced Eddy-current inspection which provides a lower (improved) detection threshold of the metallurgical non-conformities. This reinforced Eddy-current inspection, named "CFR", combined with a revised analysis, allows to increase the life limit of the post-TU347 GG second Stage Turbine Discs identified as "CFR" over the 2,500 GG life cycles of the "non-CFR" Discs.

You may obtain further information by examining the MCAI in the AD docket.

FAA's Determination and Requirements of This AD

This product has been approved by the aviation authority of France, and is approved for operation in the United States. Pursuant to our bilateral agreement with France, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This AD requires:

- For gas generator second stage turbine discs, part number (P/N) 0 292 25 040 0 that do not have the "CFR" marking, removing them from service before exceeding 2,500 cycles-in-service (CIS) since-new or within 20 CIS from the effective date of the AD, whichever occurs later; and

- For gas generator second stage turbine discs, P/N 0 292 25 040 0 that have the "CFR" marking, removing them from service before exceeding 3,500 CIS since-new.

Differences Between the AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. This AD differs from the MCAI and/or service information as follows:

- EASA AD 2010-0101R1, dated August 4, 2010, requires second stage turbine discs with fewer than 2,500 CIS to be removed upon accumulating 2,500 CIS.
- EASA AD 2010-0101R1, dated August 4, 2010, requires revising the approved aircraft maintenance program to reflect the life limit of 2,500 CIS.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because of the short compliance time in removing affected gas generator second stage discs that are near or over the reduced life limit. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2010-0710; Directorate Identifier 2010-NE-26-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD 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 with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, 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:



2010-19-06 Turbomeca: Amendment 39-16434.; Docket No. FAA-2010-0710; Directorate Identifier 2010-NE-26-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective October 6, 2010.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Turbomeca Arriel 1A, 1A1, 1B, 1C, 1C1, 1C2, 1D, 1D1, and 1S1 turboshaft engines that have incorporated Modification TU347. These engines are installed on, but not limited to, Eurocopter AS350 series, AS365 and SA365 series, Sikorsky S-76A series and S-76C series helicopters.

Reason

(d) Metallurgical non-conformities have been found when performing quality inspections during production of Arriel 1 gas generator (GG) second stage turbine discs introduced by Turbomeca Modification TU347 (P/N 0 292 25 040 0). Analysis has concluded that the approved life limit of the post-TU347 GG second stage turbine disc needs to be reduced to 2,500 GG cycles.

We are issuing this AD to prevent failure of the gas generator second stage turbine disc which could result in the release of high energy debris and damage to the helicopter.

Actions and Compliance

- (e) Unless already done, do the following:
- (1) For gas generator second stage turbine discs, part number (P/N) 0 292 25 040 0 that do not have the "CFR" marking, remove from service before exceeding 2,500 cycles-in-service (CIS) since-new or within 20 CIS from the effective date of this AD, whichever occurs later.
 - (2) For gas generator second stage turbine discs, P/N 0 292 25 040 0 that have the "CFR" marking, remove from service before exceeding 3,500 CIS since-new.

Gas Generator Second Stage Turbine Installation Prohibition

(3) After the effective date of this AD, for gas generator second stage turbine discs, P/N 0 292 25 040 0 that do not have the "CFR" marking, and have 2,500 or more CIS since-new, do not install into any engine.

(4) After the effective date of this AD, for gas generator second stage turbine discs, P/N 0 292 25 040 0 that have the "CFR" marking, and have 3,500 or more CIS since-new, do not install into any engine.

FAA AD Differences

(f) This AD differs from the Mandatory Continuing Airworthiness Information (MCAI) and/or service information as follows:

(1) European Aviation Safety Agency (EASA) AD 2010-0101R1, dated August 4, 2010, requires second stage turbine discs with fewer than 2,500 CIS to be removed upon accumulating 2,500 CIS.

(2) EASA AD 2010-0101R1, dated August 4, 2010, requires revising the approved aircraft maintenance program to reflect the new reduced life limit of 2,500 CIS.

Alternative Methods of Compliance (AMOCs)

(g) 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 2010-0101R1, dated August 4, 2010, and Turbomeca Alert Mandatory Service Bulletin No. A292 72 0831, Version B, dated July 7, 2010, for related information. Contact Turbomeca, 40220 Tarnos, France; telephone 33 05 59 74 40 00, fax 33 05 59 74 45 15, for a copy of this service information.

(i) Contact Richard Woldan, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: richard.woldan@faa.gov; telephone (781) 238-7136; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(j) None.

Issued in Burlington, Massachusetts, on September 10, 2010.
Francis A. Favara,
Manager, Engine and Propeller Directorate,
Aircraft Certification Service.