



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0557; Directorate Identifier 2013-NE-22-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Turbomeca S.A. Turboshift Engines**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Turbomeca S.A. Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshift engines. This proposed AD was prompted by a “chip illumination event” in flight on a Turbomeca S.A. Arriel 1 engine. This proposed AD would require a one-time inspection of the free turbine (FT) module (M04) for the affected Turbomeca S.A. Arriel 1 engines and, if a discrepancy is found, repair of the affected module. We are proposing this AD to prevent a loss of FT bearing lubrication, resulting FT module failure, damage to the engine, and damage to the aircraft.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, 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.

For service information identified in this AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15.

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>; 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 proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 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:** Robert Morlath, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7154; fax: 781-238-7199; email: [robert.c.morlath@faa.gov](mailto:robert.c.morlath@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0557; Directorate Identifier 2013-NE-22-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on 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 proposed 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).

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive No. 2013-0120, dated June 4, 2013 (referred to herein after as “MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

A “chip light illumination” event in flight on an ARRIEL 1C2 engine was reported to Turbomeca. Following the event, which resulted from Free Turbine front bearing deterioration, the investigation revealed that the loss of the Free Turbine (FT) bearing module has led to a major disruption in the lubrication of the FT module (M04) bearings. The root cause of the event has been attributed to incorrect bonding of the Free Turbine Bearing Plug, accomplished during the repair process in an identified Repair Center. Consequently, it was possible to identify a batch of Modules M04 which are potentially affected.

This condition, if not corrected, could lead to a loss of FT bearing lubrication resulting in FT module failure, damage to the engine, and damage to the aircraft. You may obtain further information by examining the MCAI in the AD docket.

#### **Relevant Service Information**

Turbomeca S.A. has issued Alert Mandatory Service Bulletin No. A292 72 0838, Version A, dated May 24, 2013. The service information describes procedures for correcting the unsafe condition described in the MCAI.

#### **FAA’s Determination and Requirements of This Proposed 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 the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing 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 proposed AD would require a one-time inspection of the FT module (M04) of certain Turbomeca S.A. Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines and, if a discrepancy is found, repair of the affected module.

## **Costs of Compliance**

We estimate that this proposed AD affects five engines installed on aircraft of U.S. registry. We also estimate that it would take about 1 hour per engine to comply with the inspection requirement in this proposed AD, and about 3 hours per engine to repair the module. The average labor rate is \$85 per hour. Required parts cost about \$13 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$1,765.

## **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 proposed 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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 proposed regulation:

(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.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

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

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Turbomeca S.A.:** Docket No. FAA-2013-0557; Directorate Identifier 2013-NE-22-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Turbomeca S.A. Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines equipped with free turbine (FT) module (M04) identified by the part and serial numbers listed in Figure 2 of Turbomeca S.A. Alert Mandatory Service Bulletin (MSB) No. A292 72 0838, Version A, dated May 24, 2013.

**(d) Reason**

This AD was prompted by a “chip illumination event” in flight on a Turbomeca S.A. Arriel 1 engine. We are issuing this AD to prevent a loss of FT bearing lubrication resulting in FT module failure, damage to the engine, and damage to the aircraft.

**(e) Actions and Compliance**

Unless already done, do the following.

(1) For Arriel 1B, 1D, and 1D1 engines with an FT module (M04) with a part and serial number listed in Figure 2 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, within 50 flight hours (FHs) from the effective date of this AD, inspect the M04 module. Use the instructions in paragraph 6 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013 to do your inspection.

(2) For Arriel 1A1, 1A2, 1C, 1C1, 1C2, 1E2, 1K1, 1S, and 1S1 engines with an FT module (M04) with a part and serial number listed in Figure 2 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, within 300 FHs from the effective date of this AD, inspect the M04 module. Use the instructions in paragraph 6 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, to perform the inspection.

(3) If you find that the M04 module is not eligible for return to service, remove the M04 module before further flight.

**(f) Installation Prohibition**

After the effective date of this AD, do not install any affected FT module (M04) listed in Figure 2 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, onto any engine, or an engine with an affected FT module (M04) onto any helicopter, unless the module has passed the inspections required by paragraphs (e)(1) and (e)(2) of this AD.

**(g) Alternative Methods of Compliance (AMOCs)**

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

**(h) Related Information**

(1) For more information about this AD, contact Robert Morlath, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7154; fax: 781-238-7199; email: [robert.c.morlath@faa.gov](mailto:robert.c.morlath@faa.gov).

(2) Refer to Mandatory Continuing Airworthiness Information AD 2013-0120, dated June 4, 2013, and Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, for related information.

(3) For service information identified in this AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15.

(4) 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.

Issued in Burlington, Massachusetts, on August 5, 2013.

Colleen M. D'Alessandro,  
Assistant Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.

[FR Doc. 2013-19415 Filed 08/09/2013 at 8:45 am; Publication Date: 08/12/2013]