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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-7850; Directorate Identifier 2016-NE-16-AD; Amendment 39-18819; AD 2017-05-08]

RIN 2120-AA64

Airworthiness Directives; Safran Helicopter Engines, S.A. Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Safran Helicopter Engines, S.A. Arriel 2B turboshaft engines. This AD requires removing any pre-modification (mod) TU 158 hydro-mechanical metering unit (HMU) and replacing with a part eligible for installation. This AD was prompted by a report of an uncommanded in-flight shutdown (IFSD) on a single-engine helicopter, caused by a low returning spring rate of the needle of the HMU. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD becomes effective April 13, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 13, 2017.

ADDRESSES: For service information identified in this final rule, contact Safran Helicopter Engines, S.A., 40220 Tarnos, France; phone: (33) 05 59 74 40 00; fax: (33) 05 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7850.

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-2016-7850; 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, 1200 District Avenue, 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 November 4, 2016 (81 FR 76885). The NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Following a report of an un-commanded in-flight shut-down (IFSD), Turbomeca carried out an engineering investigation. This investigation concluded that the cause of the event was a low returning spring rate of the needle of the hydro-mechanical metering unit (HMU), which enabled needle oscillation during rapid engine deceleration.

This condition, if not corrected, could lead to further cases of IFSD, possibly resulting in an emergency landing on single engine.

To address this potential unsafe condition, Turbomeca developed modification (Mod) TU 158, which increases needle return spring rate to prevent oscillation during rapid deceleration, thus preventing the risk of un-commanded IFSD. Turbomeca also published Mandatory Service Bulletin (MSB) 292 73 3158 for embodiment of this modification in service.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7850.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (81 FR 76885, November 4, 2016) or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed.

Related Service Information Under 1 CFR Part 51

Safran Helicopter Engines, S.A., (formerly Turbomeca, S.A.) has issued Mandatory Service Bulletin (MSB) No. 292 73 3158, Version A, dated April 7, 2016. The MSB describes procedures for removing the pre-mod TU 158 HMU and replacing it with an HMU that incorporates mod TU 158.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 124 engines installed on helicopters of U.S. registry.
We estimate the following costs to comply with this AD:

Estimated Costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Removal and replacement of the HMU	2 work-hours × \$85 per hour = \$170 per	\$0	\$170	\$21,080

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):



2017-05-08 Safran Helicopter Engines, S.A. (Type Certificate previously held by Turbomeca, S.A.): Amendment 39-18819; Docket No. FAA-2016-7850; Directorate Identifier 2016-NE-16-AD.

(a) Effective Date

This AD becomes effective April 13, 2017.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Safran Helicopter Engines S.A. Arriel 2B turboshaft engines with a pre-modification (mod) TU 158 hydro-mechanical metering unit (HMU), installed.

(d) Reason

This AD was prompted by a report of an uncommanded in-flight shutdown (IFSD) on a single engine helicopter caused by a low returning spring rate of the needle of the HMU. We are issuing this AD to prevent failure of the HMU, failure of the engine, IFSD, and loss of the helicopter.

(e) Actions and Compliance

Comply with this AD within the compliance times specified, unless already done.

(1) For an engine in pre-mod TU 158 configuration, within 200 engine hours, or within 5 months, whichever occurs first after the effective date of this AD, remove the pre-mod TU 158 HMU from service and replace it with a part eligible for installation.

(2) Reserved.

(f) Installation Prohibition

After the effective date of the AD, do not install any pre-mod TU 158 HMU into any engine.

(g) Definition

For the purpose of this AD, an HMU eligible for installation is one that incorporates mod TU 158 in accordance with Safran Helicopter Engines, S.A. Mandatory Service Bulletin No. 292 73 3158, Version A, dated April 7, 2016, or other FAA-approved parts.

(h) 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. You may email your request to: ANE-AD-AMOC@faa.gov.

(i) Related Information

(1) For more information about this AD, contact Kenneth Steeves, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7765; fax: 781-238-7199; email: kenneth.steeves@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency (EASA), AD 2016-0098, dated May 23, 2016, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2016-7850.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Safran Helicopter Engines Mandatory Service Bulletin No. 292 73 3158, Version A, dated April 7, 2016.

(ii) Reserved.

(3) For Safran Helicopter Engines service information identified in this AD, contact Safran Helicopter Engines, S.A., 40220 Tarnos, France; phone: (33) 05 59 74 40 00; fax: (33) 05 59 74 45 15.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information 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 February 27, 2017.

Robert J. Ganley,
Acting Manager, Engine & Propeller Directorate,
Aircraft Certification Service.