

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2011-0115; Directorate Identifier 2010-NE-40-AD; Amendment 39-17195; AD 2012-18-18]

RIN 2120-AA64

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

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

**ACTION:** Final rule.

**SUMMARY:** We are superseding an existing airworthiness directive (AD) for certain Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines. That AD currently requires accomplishment of the TU166 modification. This new AD requires adding the Arriel 2S2 and 2C2 engines to the applicability of engines requiring the TU166 modification with different compliance times. This AD was prompted by reports of an accident involving a twin-engine helicopter powered by two Arriel 2S2 engines. We are issuing this AD to prevent rupture of a gas generator (GG) turbine blade, which could result in an uncommanded in-flight shutdown and a forced landing or accident.

**DATES:** This AD is effective October 24, 2012.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of October 24, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of August 12, 2011 (76 FR 40222, July 8, 2011).

**ADDRESSES:** For service information identified in this AD, contact Turbomeca, 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 Management Facility 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 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:** Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7772; fax: 781-238-7199; email: [rose.len@faa.gov](mailto:rose.len@faa.gov).

**SUPPLEMENTARY INFORMATION:****Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2011-13-05, Amendment 39-16728 (76 FR 40222, July 8, 2011). That AD applies to Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines. The NPRM published in the **Federal Register** on June 1, 2012 (77 FR 32437). That NPRM proposed to continue to require accomplishment of the TU166 modification on Turbomeca S.A. Arriel 2B and 2B1 turboshaft engines. That NPRM also proposed to require adding the Arriel 2S2 engine to the applicability of engines requiring the TU166 modification with a different compliance time.

**Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and the FAA's response to each comment.

**Request To Add the Arriel 2C2 Engine Model**

Turbomeca S.A. requested that we add the Arriel 2C2 engine model to the proposed AD applicability. The commenter referenced European Aviation Safety Agency (EASA) AD 2012-0124, dated July 9, 2012, issued to include the Arriel 2C2 engine model requiring the TU166 modification.

We agree. We added the Arriel 2C2 engine model to the AD applicability.

**Request To Reduce Compliance Time**

Sikorsky requested that we reduce the proposed AD compliance time for Arriel 2S2 engine models to within 100-cycles-in-service (CIS), instead of 500 CIS, and, add a calendar time limitation of "but not later than September 30, 2012," based on the EASA AD having a compliance date of November 16, 2012. The commenter believes that the frequency of occurrence of the blade ruptures, when the risk is analyzed per the FAA Advisory Circular 39-8,

targeting a reasonable risk, argues for an earlier TU166 modification.

We do not agree. The risk analyzed by Sikorsky had inputs that were too conservative. We did not change the AD.

**Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously.

**Costs of Compliance**

Based on the service information, we estimate that this AD will affect about 551 products of U.S. registry. We also estimate that it will take about 60 work-hours per product to comply with this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$3,900 per product. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$4,959,000.

**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 have 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 that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, 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 removing airworthiness directive (AD) 2011–13–05, Amendment 39–16728 (76 FR 40222, July 8, 2011), and adding the following new AD:

**2012–18–18 Turbomeca S.A.:** Amendment 39–17195; Docket No. FAA–2011–0115; Directorate Identifier 2010–NE–40–AD.

#### (a) Effective Date

This airworthiness directive (AD) is effective October 24, 2012.

#### (b) Affected ADs

This AD supersedes AD 2011–13–05, Amendment 39–16728 (76 FR 40222, July 8, 2011).

#### (c) Applicability

This AD applies to Turbomeca S.A. Arriel 2B, 2B1, 2S2, and 2C2 turboshaft engines not modified by TU166 modification.

#### (d) Unsafe Condition

This AD was prompted by reports of an accident involving a twin-engine helicopter powered by two Arriel 2S2 engines. We are issuing this AD to prevent rupture of a gas generator (GG) turbine blade, which could result in an uncommanded in-flight shutdown and a forced landing or accident.

#### (e) Compliance

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

(1) For Arriel 2B and 2B1 turboshaft engines, accomplish the TU166 modification in accordance with the instructions specified within Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 72 3166 Version B, dated September 20, 2010, when the GG Turbine is replaced or when the engine or Module M03 is going through overhaul or repair, or within 676 cycles-in-service (CIS)

after the effective date of this AD, whichever occurs first.

(2) For Arriel 2S2 turboshaft engines, accomplish the TU166 modification in accordance with the instructions specified within Turbomeca Alert MSB No. A292 72 4166 Version A, dated March 23, 2012, when the GG Turbine is replaced or when the engine or Module M03 is going through overhaul or repair, or within 500 CIS after the effective date of this AD, whichever occurs first.

(3) For Arriel 2C2 turboshaft engines, accomplish the TU166 modification in accordance with the instructions specified within Turbomeca Alert MSB No. A292 72 5166 Version A, dated June 18, 2012, when the GG Turbine is replaced or when the engine or Module M03 is going through overhaul or repair or within 650 engine hours after the effective date of this AD, whichever occurs first.

#### (f) Credit for Actions Accomplished in Accordance With Previous Service Information

(1) For Arriel 2B and 2B1 turboshaft engines, if you performed the TU166 modification before the effective date of this AD using Turbomeca Alert MSB No. A292 72 3166 Version A, dated August 17, 2010, you met the requirements of paragraph (e)(1) of this AD.

(2) For Arriel 2C2 and 2S2 turboshaft engines, if you performed the TU166 modification before the effective date of this AD using Turbomeca Alert MSB No. A292 72 2166 Version A, dated March 30, 2009, Version B, dated September 4, 2009, Version C, dated June 15, 2010, Version D, dated July 28, 2010, Version E, dated October 4, 2010, Version F, dated May 13, 2011, or Version G, dated March 26, 2012, you met the requirements of paragraph (e)(2) or (e)(3) as applicable, 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 Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781–238–7772; fax: 781–238–7199; email: [rose.len@faa.gov](mailto:rose.len@faa.gov).

(2) European Aviation Safety Agency AD 2012–0054, dated April 2, 2012, and AD 2012–0124, dated July 9, 2012, also pertain to this AD.

#### (i) 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.

(3) The following service information was approved for IBR on October 24, 2012.

(i) Turbomeca Alert Mandatory Service Bulletin No. A292 72 4166 Version A, dated March 23, 2012.

(ii) Turbomeca Alert Mandatory Service Bulletin No. A292 72 5166 Version A, dated June 18, 2012.

(4) The following service information was approved for IBR on August 12, 2011 (76 FR 40222, July 8, 2011).

(i) Turbomeca Alert Mandatory Service Bulletin (MSB) No. A292 72 3166 Version B, dated September 20, 2010.

(ii) Reserved.

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

(6) You may view this service information at 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.

(7) 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 September 6, 2012.

**Robert G. Mann,**

*Acting Manager, Engine & Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 2012–22536 Filed 9–18–12; 8:45 am]

**BILLING CODE 4910–13–P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA–2006–24785; Directorate Identifier 2006–NE–20–AD; Amendment 39–17196; AD 2012–19–01]

RIN 2120–AA64

#### Airworthiness Directives; Lycoming Engines Reciprocating Engines

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

**ACTION:** Final rule.

**SUMMARY:** We are superseding an existing airworthiness directive (AD) for certain Lycoming Engines (L)O–360, (L)IO–360, AEIO–360, O–540, IO–540, AEIO–540, (L)TIO–540, IO–580, and IO–720 series reciprocating engines. That AD currently requires replacing certain crankshafts in the affected engines. This AD continues to require replacing certain crankshafts, corrects the start date of affected engine models in Lycoming Mandatory Service Bulletin (MSB) No. 569A to the start date in Supplement No. 1 to Lycoming MSB No. 569A, dated May 27, 2009, and