The FAA is adopting a new airworthiness directive (AD) for all Safran Helicopter Engines, S.A. Arriel 2C and Arriel 2S1 model turboshaft engines. This AD was prompted by reports of error messages on the full authority digital engine control (FADEC) B digital engine control unit (DECU), caused by blistering of the varnish on the DECU circuit board. This AD requires the replacement of certain FADEC B DECs. The FAA is issuing this AD to address the unsafe condition on these products.

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2020–0046, dated March 4, 2020 (referred to after this as “the MCAI”), to address the unsafe condition on these products. The MCAI states:

Occurrences have been reported of FADEC B DECU error messages, which were found to be caused by blistering of the varnish on the DECU circuit board. Subsequent investigation determined that the use of a non-compliant primer is related to the blistering effect which, in wet conditions, can cause malfunction of the stepper motor.

This condition, if not corrected, could lead to loss of automatic control on both engines concurrently, possibly resulting in reduced control of the helicopter.

To address this potentially unsafe condition, SAFRAN issued the MSB, as defined in this [EASA] AD, to provide instructions for identification and replacement of affected parts. For the reason described above, this [EASA] AD requires replacement of affected parts with serviceable parts. This [EASA] AD also prohibits (re-installation of affected parts.

You may obtain further information by examining the MCAI in the AD docket on at https://www.regulations.gov by searching for and locating Docket No. FAA–2021–0100.

**Conclusion**

The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

**Comment**

The FAA received no comments on the NPRM or on the determination of the costs.

**Other Related Service Information**

The FAA reviewed Safran Helicopter Engines Note Technique AA187866, Version A, dated 18 October 2019 [October 18, 2019], This service information identifies the serial numbers (S/Ns) of certain FADEC B DECs installed on Arriel 2C and Arriel 2S1 model turboshaft engines. 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 ADDRESSES.

**Costs of Compliance**

The FAA estimates that this AD affects 148 engines installed on helicopters of U.S. registry.

The FAA estimates the following costs to comply with this AD:
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.

The FAA is 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

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) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

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

§ 39.13 [Amended]

(1) The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### 3. Replacement of DECU

a. Effective Date

This airworthiness directive (AD) is effective August 19, 2021.

b. Affected ADs

None.

c. Applicability


d. Subject


e. Unsafe Condition

This AD was prompted by reports of error messages of the full authority digital engine control (FADEC) B digital engine control unit (DECU), caused by blistering of the varnish on the DECU circuit board. The FAA is issuing this AD to prevent failure of the FADEC B DECU. The unsafe condition, if not addressed, could result in loss of engine thrust control and reduced control of the helicopter.

f. Compliance

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

g. Required Actions

For affected engines having an installed FADEC B DECU with a serial number (S/N) identified in Safran Helicopter Engines Note Technique AA187866, Version A, dated 18 October 2019 [the Note Technique], within 1,400 engine operating hours after the effective date of this AD, replace the FADEC B DECU with a part eligible for installation.

h. Installation Prohibition

After the effective date of this AD, do not install onto any engine a FADEC B DECU that does not have an S/N listed in the Note Technique.

(i) Definition

For the purpose of this AD, a part eligible for installation is a FADEC B DECU that does not have an S/N listed in the Note Technique.

(j) Alternative Methods of Compliance (AMOs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ECO Branch, send it to the attention of the person identified in Related Information. You may email your request to: ANE-AD-AMOCs@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For more information about this AD, contact Wego Wang, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7134; fax: (781) 238–7199; email: wego.wang@faa.gov.


(l) 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 Note Technique AA187866, Version A, dated 18 October 2019 [October 18, 2019].

(ii) [Reserved]

(3) For Safran Helicopter Engines, S.A. service information identified in this AD, contact Safran Helicopter Engines, S.A., Avenue du 1er Mai, 40220 Tarnos, France; phone: +33 (0) 5 59 74 40 00.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (781) 238–7759.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA,
DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; Airbus Helicopters (Type Certificate Previously Held by Eurocopter France) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2003–25–01 which applied to certain Eurocopter France (now Airbus Helicopters) Models AS332C, AS332C1, AS332L, AS332L1, AS350B, AS350B1, AS350B2, AS350B3, AS350D, AS355E, AS355F, AS355F1, AS355F2, and AS355N helicopters. AD 2003–25–01 required modifying and re-identifying the hoist operator control unit and replacing certain fuses. This AD was prompted by the identification of multiple errors in the applicable service information for the AS350-series and AS355-series helicopters and of other needed changes. This AD retains certain requirements of AD 2003–25–01, revises the applicability, and requires using corrected service information. This AD also requires reporting certain information and prohibits the installation of an affected hoist until the required actions are accomplished. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective August 19, 2021.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 19, 2021.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of January 20, 2004 (68 FR 69596, December 15, 2003).

ADDRESS: For service information identified in this final rule, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641–0000 or (800) 232–0323; fax (972) 641–3775; or at https://www.airbus.com/helicopters/services/technical-support.html. You may view this service information at the FAA, Office of the Regional Counselor, Southwest Region, 10101 Hillwood Pkwy., Room 6N–321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222–5110. Service information that is incorporated by reference is also available at https://www.regulations.gov by searching for and locating Docket No. FAA–2021–0340.

Examining the AD Docket


FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L’Enfant Plaza N SW, Washington, DC 20024; telephone (202) 267–9167; email hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2003–25–01, Amendment 39–13384 (68 FR 69596, December 15, 2003) (AD 2003–25–01), for Eurocopter France (now Airbus Helicopters) Model AS332C, C1, L, and L1, AS350B, BA, B1, B2, B3, and D, and AS355F, F, F1, F2, and N helicopters with a Breeze 300 pound electric hoist (hoist) and hoist operator control unit, replacing the fuses, and performing a functional test of the hoist operation and the emergency jettison controls. The NPRM also proposed to require reporting certain information and prohibit the installation of an affected hoist until the required actions are accomplished.


Airbus Helicopters was also informed that there could be helicopters modified by that service information with incorrect installations. Prompted by these findings, Airbus Helicopters revised the related service information. Therefore, EASA issued EASA AD 2019–0228 to require modifying and re-identifying the hoist operator control unit, replacing the fuses, and performing a functional test of the hoist operation and the emergency jettison controls as intended by DGAC AD 2002–585(A) with the revised service information. EASA AD 2019–0228 also requires reporting certain information to Airbus Helicopters and prohibits the installation of an affected part on any helicopter unless it has been modified.

The NPRM also retains the requirements from AD 2003–25–01 for Model AS332C, C1, L, and L1 helicopters with a certain hoist and hoist box installed, based on DGAC AD 2002–584(A), dated November 27, 2002.

Additionally, since the FAA issued AD 2003–25–01, the FAA discovered that the applicability needed to be revised. This AD revises the applicability by distinguishing the hoist box installations by P/N, clarifying that Airbus Helicopters service information refers to a hoist box as a hoist operator’s control unit, adding TRW, Lucas, and Air Equipement hoists for affected Model AS350-series and AS355-series helicopters, and adding an exception for affected helicopters to exclude those with a certain modification (MOD) installed.

Issued on July 9, 2021.

Gaetano A. Sciorinti,
Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.