



Airworthiness Directive

AD No.: 2021-0195

Issued: 20 August 2021

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

AIRBUS HELICOPTERS

Type/Model designation(s):

AS 350 and EC 130 helicopters

Effective Date: 03 September 2021

TCDS Number(s): EASA R.008

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2013-0287 dated 05 December 2013.

ATA – Rotorcraft Flight Manual – Engine Digital Electronic Control Unit Emergency Procedure – Amendment

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France

Applicability:

AS 350 B3 and EC 130 T2 helicopters, all serial numbers (s/n), if equipped with ARRIEL 2D engine.

Definitions:

For the purpose of this AD, the following definitions apply:

The applicable ASB: AH Alert Service Bulletin (ASB) AS350-01.00.67 and ASB EC130-04A004, as applicable, both at Revision 2.

Affected part: Full authority digital engine control (FADEC) units having Part Number (P/N) C13165DA00, P/N C13165DA00PC00, or P/N C13165FA00, and an s/n below 1736.

Serviceable part: FADEC units, having P/N C13165DA00 amendment A, P/N C13165DA00PC00 amendment A, or P/N C13165FA00 amendment B; or any later FADEC, eligible for installation, which is not an affected part.



Groups: Group 1 helicopters are those which have an affected part installed. Group 2 helicopters are those which do not have an affected part installed.

Reason:

A report was received of an in-flight event where the pilot noticed that the temporary amber governor (GOV) light had illuminated, followed by the failure of the Vehicle Engine Monitoring Display (VEMD) screens, and no automatic or auxiliary Engine Back-up Control Ancillary Unit was available. The ensuing investigation revealed an internal failure of the engine digital engine control unit which led to a loss of fuel flow regulation (fuel metering unit frozen) without red GOV indication, but with amber GOV indication, and loss of VEMD display.

This condition, if not corrected, may lead the pilot to identify the type of failure condition incorrectly, possibly resulting in an improper response and reduced control of the helicopter.

To address this potential unsafe condition, AH issued ASB AS350-01.00.67 and ASB EC130-04A004, providing instructions to amend the Rotorcraft Flight Manual (RFM) with a new (temporary) procedure, so the pilot can identify the failure condition and decide on the appropriate response. Consequently, EASA issued AD 2013-0287 to require this temporary procedure to be incorporated in the RFM emergency procedures section.

After that AD was issued, AH ASB AS350-01.00.67 and ASB EC130-04A004 were revised to include an additional affected P/N as part of the same rectification campaign.

In parallel, SAFRAN (formerly Turboméca) developed a modification of the affected part, which mitigates the risk of rotor speed fluctuations, loss of power or uncommanded in-flight shutdown, and issued Service Bulletin (SB) 292 73 2852 providing FADEC replacement instructions. EASA issued SIB 2013-23 to recommend this modification to be incorporated on the affected helicopters. Consequently, AH issued the applicable ASB, providing instructions to remove the temporary RFM procedure from the RFM emergency procedures section of the helicopters with modified FADEC.

For the reason described above, this AD retains the requirements of EASA AD 2013-0287, which is superseded, and requires removal of the temporary RFM amendment from the RFM emergency procedures section of helicopters with modified FADEC installed. This AD also prohibits (re-)installation of an affected part after installation of modified FADEC.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

RFM Amendment:

- (1) For Group 1 helicopters: Within the compliance times specified in Table 1 of this AD, as applicable to the affected part P/N, amend the applicable RFM by incorporating the operational procedure to the RFM paragraph "3.7 Various warnings, failures and incidents not indicated on the CWP" as specified in, and in accordance with the instructions of the applicable ASB, inform all flight crew and, thereafter, operate the helicopter accordingly.



Table 1 – Affected Part P/N Compliance Time

Affected Part P/N	Compliance Times
C13165DA00 or C13165FA00	Within 30 days or 25 flight hours, whichever occurs first after 12 December 2013 [the effective date of EASA AD 2013-0287]
C13165DA00PC00	Within 30 days or 25 flight hours, whichever occurs first after the effective date of this AD

Credit:

- (2) Amendment on a helicopter of the applicable RFM, before the effective date of this AD in accordance with the instructions of AH ASB AS350-01.00.67 or ASB EC130-04A004 at original issue or Revision 1, as applicable, is an acceptable method to comply with the requirements of paragraph (1) of this AD for that helicopter.

RFM Amendment Removal:

- (3) For Group 1 helicopters: Concurrently with modification of a helicopter by installation of a serviceable part, as defined in this AD, in accordance with the instructions of SAFRAN SB 292 73 2852, remove the RFM amendment, previously inserted as required by paragraph (1) of this AD, from the RFM of that helicopter. After amendment of the RFM, inform all flight crews and, thereafter, operate the helicopter accordingly.

Part(s) Installation:

- (4) Do not install (see Note 1 of this AD) on any helicopter an affected part, as defined in this AD, as required by paragraph (4.1) or (4.2) of this AD, as applicable.
- (4.1) For Group 1 helicopters: After modification of the helicopter as specified in paragraph (3) of this AD.
- (4.2) For Group 2 helicopters: From the effective date of this AD.

Note 1: Removal from a helicopter of an affected part and reinstallation of that affected part, on the same helicopter during the same maintenance visit, is not considered “install” as specified in paragraph (4) of this AD.

Ref. Publications:

AH ASB AS350-01.00.67 original issue dated 04 December 2013, or Revision 1 dated 30 January 2014, or Revision 2 dated 17 February 2014.

AH ASB EC130-04A004 original issue dated 04 December 2013, or Revision 1 dated 30 January 2014 or Revision 2 dated 17 February 2014.

SAFRAN SB 292 73 2852 version A (original issue) dated 06 December 2013, version B dated 12 February 2014 or version C dated 06 June 2016.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.



Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 24 June 2021 as PAD 21-091 for consultation until 22 July 2021. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters Customer Support, Telephone +33 (0)4.42.85.97.89, Fax + 33 (0)4.42.85.99.66, E-mail: Airframe.Technical-Support@airbus.com, Keycopter Technical Request Management: TechnicalSupport.Helicopters@airbus.com.

