



Airworthiness Directive

AD No.: 2018-0230

Issued: 23 October 2018

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 DEUTSCHLAND GmbH

Type/Model designation(s):

MBB-BK117 D-2 helicopters

Effective Date: 06 November 2018

TCDS Number(s): EASA.R.010

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2017-0146 dated 10 August 2017.

ATA 42 – Integrated Modular Avionics – Aircraft Management Computer Software – Modification

Manufacturer(s):

Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH

Applicability:

MBB-BK117 D-2 helicopters, all serial numbers.

Definitions:

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

The ASB: Airbus Helicopters Alert Service Bulletin (ASB) MBB-BK117 D-2-42A-004.

Affected part: Aircraft Management Computers (AMC), having software (SW) version V5.0.2, part number (P/N) D462C01S0502 or P/N D462C03S0502, or earlier, installed.

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



Reason:

Two occurrences were reported of uncommanded helicopter climb/descent, following activation of autopilot cruise height (CRHT) mode concurrently with ground trajectory command in hover (GTCH) mode engaged.

This condition, if not detected and corrected, could lead to temporary loss of control of the helicopter, possibly resulting in damage to the helicopter and/or injury to occupants.

To address this unsafe condition, AH issued Rotorcraft Flight Manual (RFM) Temporary Revisions (TR) introducing a minimum airspeed limitation for the autopilot CRHT mode, and EASA issued AD 2017-0146, requiring amendment of the MBB-BK117 D2 RFM.

Since that AD was issued, AH developed an updated AMC SW, and published the ASB providing applicable instructions.

For the reasons described above, this AD retains the requirements of EASA AD 2017-0146, which is superseded, and requires updating the AMC SW.

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

Required as indicated, unless accomplished previously:

Restatement of Requirements of EASA AD 2017-0146**RFM Amendment:**

- (1) For Group 1 helicopters: Within 30 days after 24 August 2017 [the effective date of EASA AD 2017-0146], amend section 2.5.5.1 of the RFM, "Operating limitations of the autopilot", by inserting a copy of Appendix 1 of this AD (or its text), or a copy of the RFM TR as identified in Table 1 of this AD, as applicable, inform all flight crews and, thereafter, operate the helicopter accordingly.

Table 1 – RFM Temporary Revision

| MBB-BK117 D-2 Configuration | RFM Temporary Revision |
|-----------------------------|-------------------------------|
| D-2 (basic) | TR No. 1, dated 28 March 2017 |
| D-2m | TR No. 2, dated 28 March 2017 |
| D-2 (Helionix Step 2) | TR No. 1, dated 28 March 2017 |
| D-2m (Helionix Step 2) | TR No. 1, dated 28 March 2017 |

- (2) Amending the limitations section of the RFM of a helicopter to incorporate a later RFM revision which includes the procedures detailed in Appendix 1 of this AD is acceptable to comply with the RFM amendment requirement of paragraph (1) of this AD.

New Requirements of this AD:**Modification:**

- (3) For Group 1 helicopters: Within 2 months after the effective date of this AD, update the SW of the affected part in accordance with the instructions of Section 3.B of the ASB.



- (4) Replacement of an affected part on a helicopter with an AMC having SW version V5.0.3 or higher installed, in accordance with instructions provided by AH, is an acceptable alternative method to comply with the requirement of paragraph (3) of this AD for that helicopter.

Parts Installation:

- (5) Do not install on any helicopter an affected part, and do not upload a SW version lower than V5.0.3 on any AMC, as required by paragraph (5.1) or (5.2.) of this AD, as applicable.

(5.1) For Group 1 helicopters: After modification of that helicopter as required by paragraph (3) of this AD.

(5.2) For Group 2 helicopters: From the effective date of this AD.

RFM Amendment:

- (6) After modification of a Group 1 helicopter as required by paragraph (3) of this AD, it is allowed to remove the AFM TR, previously inserted as required by paragraph (1) of this AD, from the RFM of that helicopter.

Ref. Publications:

AH BK117 D-2, TR No. 1, dated 28 March 2017.

AH BK117 D-2m, TR No. 2, dated 28 March 2017.

AH BK117 D-2 (Helionix Step 2), TR No. 1, dated 28 March 2017.

AH BK117 D-2m (Helionix Step 2), TR No. 1, dated 28 March 2017.

AH ASB MBB-BK117 D-2-42A-004 original issue dated 04 September 2018.

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 08 October 2018 as PAD 18-135 for consultation until 22 October 2018. 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](#).



5. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters Deutschland GmbH, Industriestrasse 4, 86609 Donauwörth, Federal Republic of Germany
Telephone: + 49 (0)151 1422 8976; Facsimile: + 49 (0)906 71 41
Web portal: <https://keycopter.airbushelicopters.com> > Technical Request Management
E-mail: customersupport.helicopters@airbus.com.

Superseded



Appendix 1: RFM Amendment

AUTOPILOT LIMITATIONS

Operating limitations of the autopilot

Minimum airspeed

– Minimum airspeed with CRHT mode engaged 40 kt

Superseded

