

Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 25-144

Issued: 16 September 2025

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name: Type/Model designation(s):

AIRBUS HELICOPTERS H160-B helicopters

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.R.516

Foreign AD: Not applicable

Supersedure: None

ATA – Rotorcraft Flight Manual – Emergency Procedures Section – Amendment

ATA 42 – Integrated Modular Avionics – Ethernet Network – Inspection / Modification

Manufacturer(s):

Airbus Helicopters (AH)

Applicability:

H160-B helicopters, serial numbers (s/n) 1004, 1006, 1008 through 1010 (inclusive), 1015, 1016, 1020, 1021, 1023 through 1027 (inclusive), 1029 through 1031 (inclusive), 1035, 1037 through 1043 (inclusive), 1045, 1047 through 1052 (inclusive), and 1054 through 1059 (inclusive).

Definitions:

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

The ASB: AH Alert Service Bulletin (ASB) H160-46-31-0001.

The software ASB: AH ASB H160-46-20-0002.

The modification ASB: AH ASB H160-46-31-0004.



Maintenance mode test procedure: In accordance with the instructions of section 'Accomplishment Procedure - 4.2' of the ASB.

Operational mode test procedure: In accordance with the instructions of section 'Accomplishment Procedure - 4.4' of the ASB.

Troubleshooting instructions: In accordance with the instructions of the sections 'Accomplishment Procedure - 4.3' and 'Accomplishment Procedure - 4.5' of the ASB.

Operational limitation: Prohibition to operate the helicopter in instrument meteorological conditions (IMC) and night visual meteorological conditions (Night VMC); and installation of a placard in the cockpit in accordance with the instructions of the ASB.

The RFM Emergency Procedure: Rotorcraft Flight Manual (RFM) Emergency Procedure as identified in Appendix 1 of this AD.

The ALS update: AH H160-B Airworthiness Limitations Section (ALS) Revision 020.

Reason:

Occurrences were reported of multiple multi-function display (MFD) failures. Investigations identified design deficiencies in the Helionix Ethernet network management of the Integrated Modular Avionics suite (IMA), which caused MFD failures due to certain damage to Ethernet wiring or connections to an avionics equipment.

This condition, if not detected and corrected, could lead to reduced situational awareness of the pilot, possibly resulting in reduced control of the helicopter.

To address this potential unsafe condition, AH issued the ASB, as defined in this AD, providing instructions for inspections, and EASA issued AD 2022-0143 to require repetitive checks of the functional status of the IMA Ethernet network and, depending on findings, accomplishment of applicable corrective action(s), which may include an operational limitation.

After that AD was issued, AH developed an Emergency Procedure to be applied in case of multiple MFD failures or loss of all MFDs, and issued a Temporary Revision of the RFM, incorporating this Emergency Procedure. Consequently, EASA issued AD 2022-0168, taking over the requirements of EASA AD 2022-0143, which was superseded, to additionally require incorporation of the RFM Emergency Procedure (as defined in this AD) into the applicable RFM.

Since that AD was issued, AH developed modifications for H160-B helicopters to address the previously identified deficiencies in the design of the Helionix avionics suite, and issued the software ASB and the modification ASB, as defined in this AD. These ASBs provide instructions to install HELIONIX V11 and for modification of the software of the Helionix Aircraft Management Computers (AMCs) and MFDs.

For the reasons described above, this AD takes over the requirements for H160-B helicopters from EASA AD 2022-0168, requiring in addition modification of all affected H160-B helicopters, which is terminating action for the repetitive inspection as required by AD 2022-0168 for those helicopters.



Concurrently with the issuance of this AD, EASA AD 2022-0168 is revised to remove H160-B helicopters from its applicability.

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Restatement of the requirements of EASA AD 2022-0143 and EASA AD 2022-0168 Inspection(s):

(1) Within 55 flight hours (FH) after 15 July 2022 [the effective date of EASA AD 2022-0143], and, thereafter, at intervals not to exceed 110 FH, accomplish a check in accordance with the maintenance mode test procedure, and in accordance with the operational mode test procedure, as defined in this AD.

Corrective Action(s):

(2) If, during any check as required by paragraph (1) of this AD, any discrepancy, as identified in the ASB, is detected, before next flight, accomplish the applicable corrective action(s) in accordance with the troubleshooting instructions, as defined in this AD.

Additional Maintenance Requirements:

(3) From 15 July 2022 [the effective date of EASA AD 2022-0143], following accomplishment on a helicopter of any maintenance task that includes disconnection and subsequent re-connection of any connector of the IMA Helionix Ethernet network, or following any MFD failure, before next flight, accomplish a check in accordance with the maintenance mode test procedure, and in accordance with the operational mode test procedure, and, depending on findings, accomplish the applicable corrective action(s) in accordance with the troubleshooting instructions.

Operational Limitation:

(4) If, after accomplishment of the troubleshooting instructions as required by paragraph (2) or (3) of this AD, as applicable, any discrepancy cannot be removed or corrected, before next flight, implement the operational limitation, as defined in this AD, inform all flight crews and, thereafter, operate the helicopter accordingly.

Alternative Method:

(5) Implementing on a helicopter the operational limitation as specified in paragraph (4) of this AD is an acceptable alternative method to defer compliance with the requirements of the paragraphs (1) and (2) of this AD for that helicopter. Following accomplishment of the checks and corrective action(s), as applicable, as required by paragraphs (1) and (2) of this AD, the operational limitation can be removed, provided any discrepancy has been removed or corrected, as applicable.

Terminating Action(s):

(6) Accomplishment of corrective action(s) on a helicopter as required by paragraph (2) of this AD does <u>not</u> constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that helicopter.



RFM Amendment:

- (7) Within 7 days after 26 August 2022 [the effective date of the original issue of EASA AD 2022-0168], amend the RFM by incorporating the RFM Emergency Procedure as defined in this AD, inform all flight crews and, thereafter, operate the helicopter accordingly.
- (8) Amending the applicable RFM of a helicopter by incorporating a RFM Revision as listed in Table 1 of this AD, as applicable, or a later RFM Revision, which includes the same content as the RFM Emergency Procedure, as applicable, is an acceptable method to comply with the requirements of paragraph (7) of this AD for that helicopter.

Table 1 – RFM Revisions

RFM Revision

Paper format: RFM H160-B issue dated 29 June 2022 (approval reference 2983)

e-RFM data package: AIRCREW H160-000 dated 29 June 2022 (approval reference 2984)

New requirements of this AD

HELIONIX Modification:

- (9) Within 31 months after the effective date of this AD, modify the helicopter to incorporate HELIONIX V11 software in accordance with the instructions of the 'Accomplishment Procedure' of the software ASB (see Note 1 of this AD).
- (10) Prior to or concurrently, as applicable, with the requirements of paragraph (9) of this AD, accomplish the concurrent requirements, as applicable, as identified in the software ASB Section 4 'Concurrent Requirements'.
- (11) Concurrently with the requirements of paragraph (9) of this AD, amend the applicable RFM by incorporating the RFM specified in Table 2 of this AD, or later approved revision, inform all flight crews and, thereafter, operate the helicopter accordingly.

Table 2 - RFM Revisions

RFM Revision

Paper format: RFM H160-B issue dated 07 February 2024 (approval reference 4534).

e-RFM data package: AIRCREW H160-000 dated 07 February 2024 (approval reference 4536)

(12) Updating the RFM of a helicopter as required by paragraph (11) of this AD supersedes the requirement of paragraph (7) of this AD for that helicopter.



(13) After the modification as required by paragraph (9) of this AD, accomplish all applicable maintenance tasks within the thresholds and intervals as specified in the ALS update.

- (14) In case of finding discrepancies during accomplishment of any task as required by paragraph (13) of this AD, before next flight, accomplish the applicable corrective action(s) in accordance with the applicable AH maintenance documentation. If a detected discrepancy cannot be corrected by using existing AH instructions, before next flight, contact AH for approved instructions and accomplish those instructions accordingly.
- (15) Amending the AMP of a helicopter by incorporating the tasks and associated thresholds and intervals described in the ALS update is an acceptable method to comply with the requirement of paragraphs (13) and (14) of this AD, as applicable, for that helicopter.

Terminating Action(s):

(16) Modification of a helicopter as required by paragraphs (9) to (15) of this AD constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD and cancels the requirements of paragraph (5) of this AD, as applicable, for that helicopter.

Ref. Publications:

AH ASB H160-46-31-0001 original issue dated 07 July 2022, or Issue 002 dated 23 July 2025.

AH ASB H160-46-20-0002 original issue dated 23 July 2025.

AH ASB H160-46-31-0004 original issue dated 23 July 2025.

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

Remarks:

- 1. This Proposed AD will be closed for consultation on 14 October 2025.
- 2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
- 3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the <u>EU aviation safety reporting system</u>. This may include reporting on the same or similar components, other than those covered by the design to which this PAD 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.
- 4. For any question concerning the technical content of the requirements in this PAD, please contact: Airbus Helicopters (Technical Support) at: Web portal: https://airbusworld.helicopters.airbus.com / Technical Requests Management, or E-mail: TechnicalSupport.Helicopters@airbus.com, or Telephone: +33 (0)4 42 859 789.



H160-B Loss of all MFD Page 1/3

LOSS OF ALL MFD
SYMPTOMS —
No content
TEMPORARY INFORMATION
TEIN ORAKI III ORIMATON
Reason for change:
HELIONIX issue impacting MFD SYMPTOMS
Loss of all MFD (MFD failure displayed on all MFD)
CORRECTIVE ACTIONS —
No content
TEMPORARY INFORMATION
Degrap for shapes:
Reason for change: HELIONIX issue impacting MFD
■ ON GROUND:
1. Engine shutdownPERFORM
(Refer to <u>4.3.7 "ENGINE SHUTDOWN"</u>)
■ IN FLIGHT:
1. Aircraft trajectory
a. Maintain using IESI and stand-by compass b. Use AFCS RECOVERY (or GO AROUND) if necessary
c. Operate aircraft within the approved performance
2. MFD2RESET (OFF/ON)
CAUTION
If the MFD is restarted at night, the MFD will reboot with full
brightness and may disturb the pilot briefly. Restarting an
MFD during critical flight phases shall be avoided.

H160-B Loss of all MFD Page 2/3

If MFD2 restarts (All functions linked to MFD are recovered):
 3. MFD 2......Maintain in FND format

LIMIT DURATION OF FLIGHT

NOTE

- If autopilot upper modes were coupled they may decouple after 10 seconds (indicated by an "autopilot decouple" voice message).
- For HTAWS to be available, SVS must be switched off (select FDS). After restarting MFD, it takes 2 minutes before HTAWS is available.
- TCAS alerts are lost.

H160-B Loss of all MFD Page 3/3

If MFD2 does not restart (all MFD remain off):

4. VMC conditionsEstablish

LIMIT DURATION OF FLIGHT

NOTE

- If autopilot upper modes were coupled they may decouple after 10 seconds (indicated by an "autopilot decouple" voice message).
- GPS navigation information can be obtained from the FMS.
- The following AFCS functions are available:
 - · Basic stabilization (attitude hold),
 - AFCS RECOVERY (double press on the AP RECOV pushbutton on the cyclic grip) will engage ALT, IAS, HDG/ TRK modes on the current values. After engagement, individual upper modes can be disengaged through the APCP or AP UM OFF push-button on cyclic grip,
 - Go-around mode will be available through the GO AROUND push-button on the collective grip. This will engage V/S or FPA and IAS,
 - The AFCS status (engaged upper modes V/S or FPA, ALT, HDG or TRK, IAS) is visible on the APCP,
 - It is <u>not</u> possible to engage upper modes through the APCP,
 - It is <u>not</u> possible to change the upper mode references through the cyclic/collective beep or rotary buttons.
- All vehicle aural alerts (tones and voice message) remain available.
- HTAWS and TCAS aural alerts are lost.
- Transponder Mode C (altitude reporting) is lost.

