



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 16-140

Issued: 30 September 2016

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance/cancellation 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:

AIRBUS HELICOPTERS

Type/Model designation(s):

AS 350 B3 helicopters

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

TCDS Number(s): EASA R.008

Foreign AD: Not applicable

Supersedure: None

ATA 67 – Rotor Flight Controls – Dual Hydraulic System – Modification

Manufacturer(s):

Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale)

Applicability:

AS350 B3 helicopters, all serial numbers, if equipped with a dual hydraulic system, except those that embody mod 074719 and mod 074622.

Reason:

During the past 5 years, four in-service occurrences were reported concerning certain AS 350 B3 helicopters, equipped with a dual hydraulic system, that did not involve any component malfunction or failure, but where a crew human factor was determined to have been a contributing cause. These events were assessed from the man-machine interface standpoint, and it was recognized that a pilot could forget to reactivate the HYD switch or the ACCU TST button during a hydraulic test. Improper setting of the HYD switch and ACCU TST button significantly increases the control load necessary to generate sufficient TR thrust for take-off.

This condition, if not corrected, could cause the pilot to take off without recognising the omission, preventing safe completion of the manoeuvre, possibly resulting in damage to the helicopter and injury to occupants.



Prompted by these findings, Airbus Helicopters (AH) developed a new Rotorcraft Flight Manual (RFM) procedure for the functional check of the Yaw Load Compensator, and published Service Bulletin (SB) AS350-67.00.66 to provide that procedure for in-service application. The advantage of the new procedure is that actuating the Yaw Servo Hydraulic Switch during the run-up hydraulic check is no longer necessary. Consequently, EASA issued AD 2015-0178 to require the new procedure to be incorporated in the normal procedures section of the applicable AS350 B3 RFM.

In addition to the RFM change, AH developed production mod 074622 and mod 074719, the purpose of which is to (1) trigger a caution when the hydraulic switch on the collective grip is set to OFF; (2) add an indicator light to indicate the status of the dual hydraulic system; and (3) replace the bistable ACCU TST push button with a monostable push button. AH published corresponding SB AS350-67.00.64 and SB AS350-67.00.65, respectively, to provide in-service modification instructions.

Based on further analysis of the reported occurrences, it has been determined that, despite the RFM change introduced by AD 2015-0178, a critical scenario may still develop the condition of a human error, unless the new modifications are required to be introduced.

For the reasons described above, this AD requires the modification to trigger a caution when the hydraulic switch on the collective grip is set to OFF, the installation of an additional indicator light, and the replacement of the bistable ACCU TST push button with a monostable push button.

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

Required as indicated, unless accomplished previously:

Within 12 months after the effective date of this AD, modify the helicopter in accordance with the instructions of Section 3 of AH SB AS350-67.00.64 and SB AS350-67.00.65.

Ref. Publications:

Airbus Helicopters SB AS350-67.00.64 dated 25 February 2015.

Airbus Helicopters SB AS350-67.00.65 dated 25 August 2016.

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

Remarks:

1. This Proposed AD will be closed for consultation on 28 October 2016.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, please contact: Airbus Helicopters (ESBESB) - Aéroport de Marseille, Provence 13725 Marignane Cedex – France, Telephone: + 33 (0) 12 85 97 97, Fax: + 33 (4) 85 99 66, E-mail: Directive.technical-support@airbus.com.

