



Airworthiness Directive

AD No.: 2019-0080

Issued: 03 April 2019

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):

SA 365, AS 365 and EC 155 helicopters

Effective Date: 17 April 2019

TCDS Number(s): EASA.R.105

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2017-0165 dated 05 September 2017.

ATA 53 – Fuselage – Aft Fuselage Skin Panels – Inspection

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France, Aerospatiale, Sud Aviation

Applicability:

SA 365 N, SA 365 N1, AS 365 N2, AS 365 N3, EC 155 B and EC 155 B1 helicopters, all serial numbers.

Definitions:

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

The applicable ASB: AH Alert Service Bulletin (ASB) AS365-05.00.77 and ASB EC155-05A033, as applicable.

Affected areas: Aft fuselage outer skin areas as defined in the applicable ASB.

Groups: Group 1 are SA 365 N1, AS 365 N2, AS 365 N3, EC 155 B and EC 155 B1 helicopters.
Group 2 are SA 365 N helicopters.

Reason:

Several cases have been reported of finding aft fuselage (baggage compartment area) outer skin debonding during a 600 flight hours (FH) general inspection of the structure. Although most of the occurrences were detected on EC 155 helicopters, it was determined that, due to design similarity of the affected structure on AS 365 and SA 365 helicopters, debonding may also occur on those



helicopter models. The investigation is still in progress and the cause of the debonding has not yet been determined.

This condition, if not detected and corrected, could reduce the structural integrity of the aft fuselage, possibly affecting safe flight and landing.

Prompted by these findings, AH published the applicable ASB, providing inspection instructions and EASA issued AD 2017-0165 to require repetitive tapping and visual inspections of the affected areas and, depending on findings, accomplishment of applicable corrective action(s), including repetitive tapping inspections of affected debonded skin areas.

Since that AD was issued, analysis of collected data indicated that the repetitive tapping inspections of known debonded areas can be terminated if it is established, during 3 consecutive tapping inspections, that there is either no propagation of the debonding of the affected skin area, or that propagation is 'not significant'. AH issued Revision 1 of the applicable ASB providing a definition of 'no significant propagation' of a debonded surface. Additionally, EASA determined that SA 365 N helicopters are potentially also affected by the unsafe condition addressed by AD 2017-0165.

For the reasons described above, this AD retains the requirements of EASA AD 2017-0165, which is superseded, expands the applicability and introduces conditional terminating action for the tapping inspections as required by paragraph (4) of this AD.

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

Required as indicated, unless accomplished previously:

Repetitive Inspections:

- (1) Within the compliance time defined in Table 1 of this AD, as applicable, accomplish a tapping inspection of the affected areas in accordance with the instructions of the applicable ASB.

Table 1 – Initial tapping inspection

Group	Compliance time
1	Within 110 FH after 19 September 2017 [the effective date of EASA AD 2017-0165]
2	Within 110 FH after the effective date of this AD

- (2) Within 110 FH after the tapping inspection as required by paragraph (1) of this AD and, thereafter, at intervals not to exceed 110 FH, accomplish a visual inspection of the affected areas in accordance with the instructions of the applicable ASB.
- (3) Within 660 FH after the tapping inspection as required by paragraph (1) of this AD and, thereafter, at intervals not to exceed 660 FH, accomplish a tapping inspection of the affected areas in accordance with the instructions of the applicable ASB.
- (4) If, during any inspection as required by paragraph (1), (2) or (3) of this AD, as applicable, debonding is detected which is within the criteria as specified in the applicable ASB (one area confined to a 10 x 10 cm (or smaller) square, not crossing two skin panels), within 110 FH after that detection, and thereafter, at intervals not to exceed 110 FH, accomplish a tapping



inspection of the affected debonded skin area in accordance with the instructions of the applicable ASB.

Corrective Action(s):

- (5) If, during any inspection as required by this AD, debonding is detected which exceeds the criteria as specified in the applicable ASB, before next flight, contact AH for approved skin panel repair or replacement instructions and accomplish those instructions accordingly.

Terminating Action:

- (6) Accomplishment of 3 consecutive tapping inspections of an affected debonded skin area, as required by paragraph (4) of this AD, during which it is established that the debonding of the affected debonded skin area does not progress, or the progress is not significant, as defined in Revision 1 of the applicable ASB, constitutes terminating action for repetitive inspections as required by paragraph (4) of this AD for that affected debonded skin area. Requirements of paragraphs (1), (2) and (3) of this AD remain applicable for all affected areas.

Ref. Publications:

AH ASB AS365-05.00.77 original issue dated 21 July 2017, or Revision 1 dated 27 March 2019.

AH ASB EC155-05A033 original issue dated 21 July 2017, or Revision 1 dated 27 March 2019.

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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness 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 (Technical Support), Aéroport de Marseille Provence 13725 Marignane Cedex, France, Telephone +33 (0)4 42 85 97 97, Fax +33 (0)4 42 85 99 66, Web portal: <https://keycopter.airbushelicopters.com> > Technical Requests Management, E-mail: support.technical-dyncomp.ah@airbus.com, and TechnicalSupport.Helicopters@airbus.com.

