Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 20-115

Issued: 29 July 2020

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:
AIRBUS

Type/Model designation(s):
A318, A319 and A320 aeroplanes

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

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2014-0278 dated 19 December 2014.

ATA 53 – Fuselage – Skin Above Lap Joint – Inspection

Manufacturer(s):
Airbus, formerly Airbus Industrie

Applicability:
Airbus A318-111, A318-112, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-231, A320-232, and A320-233 aeroplanes, manufacturer serial numbers (MSN) 0029 to 1013 inclusive, 1016 to 1709 inclusive, 1714, 1939, 1991, 2017, 2035, 2051, 2059, 2071, 2081, 2089, 2100, 2109, 2124, 2218, 2262, 2694, 2723 to 2725 inclusive, 2727 to 2729 inclusive, 2731 to 2735 inclusive, 2737 to 2740 inclusive, and 2742 to 2750 inclusive.

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

The AOT: Airbus Alert Operators Transmission (AOT) A53N009-14.

The SB: Airbus Service Bulletin (SB) A320-53-1472 Revision (Rev.) 01.

Affected area: Pocket radii located between fuselage frame (FR) 35 and FR47, above lap joint stringer (STGR) 6 on both left-hand (LH) and right-hand (RH) sides.

Groups:
- Group 1 aeroplanes are MSN 0977, 1007, 1009, 1011, 1013, 1026 and 1030.
- Group 2 aeroplanes are those which are not Group 1 and on which maintenance review board (MRB) general visual inspection (GVI) task reference 533133-01-5, 533133-01-7 or 533133-01-8, as applicable, was accomplished during the 12 months before the effective date of this AD.
- Group 3 aeroplanes are those which are not Group 1 and on which MRB GVI task reference 533133-01-5, 533133-01-7 or 533133-01-8 was **not** accomplished during the 12 months before the effective date of this AD.

Reason:

In 2014, a 170 mm crack was found on an A320 aeroplane, located between FR36 and FR37, just above the STGR 6 lap joint, LH side. The crack had propagated along the pocket radius. Prior to this finding, the operator had reported noise in the affected area during several weeks.

This condition, if not detected and corrected, could lead to in-flight depressurization of the aeroplane, possibly resulting in injury to occupants.

To address this unsafe condition, Airbus published the AOT (original issue) to provide inspection and repair instructions, to detect and prevent crack propagation. Consequently, EASA issued AD 2014-0278, which applied to a selected range of aeroplanes for sampling purposes, requiring repetitive Low Frequency Eddy Current (LFEC) or High Frequency Eddy Current (HFEC) inspections of the pocket radii located between fuselage FR35 and FR40, above STGR 6, on both LH and RH sides and, depending on findings, accomplishment of repair instructions.

Since that AD was issued, it was determined that cracks can initiate and develop between FR35 and FR47, and Revision 01 (Rev. 01) of the AOT was published to extend the inspection area accordingly. Further investigation also identified that more aeroplanes are affected than initially determined.

For the reasons described above, this AD retains the requirements of EASA AD 2014-0278, which is superseded, expands the Applicability and the affected (to be inspected) area, and requires new inspection intervals and amended instructions for GVI and/or special detailed inspection (SDI).

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) For Group 1 aeroplanes: Within the compliance time as defined in Table 1 of this AD, and, thereafter, at intervals not to exceed 2 500 flight cycles (FC), accomplish an SDI of the affected area in accordance with the instructions of the SB.

Table 1 – SDI Threshold

Compliance Time (whichever occurs later, **A** or **B**)	
A	Within 2 500 FC after the last SDI (LFEC or HFEC) accomplished in accordance with the instructions of the AOT at original issue or Rev. 01, as applicable
B	Within 1 300 FC after the last GVI accomplished in accordance with the instructions of the SB at original issue, but without exceeding 5 200 FC since the last SDI (LFEC or HFEC) accomplished in accordance with the instructions of the AOT at original issue or Rev. 01, as applicable

(2) For Group 2 aeroplanes: Within the compliance time as defined in Table 2 of this AD, accomplish an external GVI per Non-destructive Testing Manual (NTM) 51-90-00 of the fuselage skin at section 15, milled pocket step above STGR 6, both LH and RH sides, in the upper skin panel from FR35 to FR47, in accordance with the instructions of the SB.

Table 2 – GVI Threshold

Compliance Time (whichever occurs later, A or B)	
A	Within 2 months after the effective date of this AD
B	Within 12 months after the last MRB GVI (Task 533133-01-5 or 533133-01-7 or 533133-01-8, as applicable) accomplished before the effective date of this AD

(3) For Group 2 aeroplanes: Within 2 500 FC after the GVI as required by paragraph (2) of this AD and, thereafter, at intervals not to exceed 2 500 FC, accomplish an SDI of the affected area in accordance with the instructions of the SB.

(4) For Group 3 aeroplanes: Within 2 months after the effective date of this AD, accomplish an external GVI per NTM 51-90-00 of the fuselage skin at section 15, milled pocket step above STGR 6, both LH and RH sides, in the upper skin panel from FR35 to FR47, in accordance with the instructions of the SB.

(5) For Group 3 aeroplanes: Within 2 500 FC after the GVI as required by paragraph (4) of this AD and, thereafter, at intervals not to exceed 2 500 FC, accomplish an SDI of the affected area in accordance with the instructions of the SB.

Alternative Inspection(s):

(6) For Group 1 aeroplanes: Consecutive GVI, accomplished on the affected area of an aeroplane within 1 300 FC after the last GVI or SDI, as applicable, and, thereafter at intervals not to exceed 1 300 FC, in accordance with the instructions of the SB, are acceptable in lieu of the SDI as required by paragraph (1) of this AD, provided the next SDI is accomplished before exceeding 5 200 FC since the last SDI accomplished on the affected area of that aeroplane.

(7) For Group 2 and 3 aeroplanes: Consecutive GVI, accomplished on the affected area of an aeroplane within 1 300 FC after the last GVI or SDI, as applicable, and, thereafter, at intervals not to exceed 1 300 FC, in accordance with the instructions of the SB, are acceptable in lieu of the SDI as required by paragraph (3) or (5) of this AD, as applicable, provided that the maximum compliance time for SDI, as defined in Table 3 of this AD, is not exceeded.

Table 3 – SDI Threshold

Aeroplane Condition	Compliance Time
No SDI previously accomplished on the affected area	Before exceeding 5 200 FC since the first external GVI as required by paragraph (2) or (4) of this AD, as applicable, or within 12 months after the first external GVI as required by paragraph (2) or (4) of this AD, as applicable, or within 36 months after the effective date of this AD, whichever occurs first
SDI previously accomplished on the affected area	Before exceeding 5 200 FC since the last SDI accomplished on the affected area of that aeroplane

Corrective Action(s):

(8) If, during any inspection as required by paragraph (1), (2), (3), (4) or (5) of this AD, or as specified in paragraph (6) or (7) of this AD, any crack is found, before next flight, contact Airbus for approved repair instructions and accomplish those instructions accordingly.

Credit:

(9) For a Group 1 aeroplane that has been repaired before the effective date of this AD, following inspection as per the AOT, in accordance with the instructions of an Airbus Repair Design Approval Sheet (RDAS), accomplish the next inspection of each repaired area in accordance with the instructions of, and within the compliance time as specified in, the applicable RDAS.

(10) For an aeroplane on which, before the effective date of this AD, a GVI has been accomplished in accordance with the instructions of the SB at original issue, accomplish the next inspection, SDI or GVI, as specified in paragraph (1), (2), (3), (4), (5), (6) or (7) of this AD, as applicable.

Terminating Action:

(11) None.

(12) Accomplishment of inspection(s) on an aeroplane, as specified in paragraph (9) of this AD, does not constitute terminating action for the repetitive inspections of the repaired area as required by paragraph (1) of this AD for that aeroplane, unless specified otherwise in the instructions provided by Airbus.

Ref. Publications:

Airbus AOT A53N009-14 original issue dated 17 December 2014, or Revision 01 dated 04 August 2016.

Airbus SB A320-53-1472 original issue dated 17 December 2019, or Revision 01 dated 17 July 2020.

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 26 August 2020.

2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness 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 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 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 – Airworthiness Office – IIAS; E-mail: account.airworth-eas@airbus.com.