European Union Aviation Safety Agency

Airworthiness Directive

AD No.: 2015-0036R2

Issued: 27 February 2020

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

Type/Model designation(s):

A318, A319, A320 and A321 aeroplanes

Effective Date: Revision 2: 05 March 2020
Revision 1: 07 April 2015
Original Issue: 17 March 2015

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2015-0036R1 dated 31 March 2015.

ATA 53 – Fuselage – Fuselage Skin Repairs – Inspection

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231 and A321-232 aeroplanes, all manufacturer serial numbers.

Definitions:

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

Aeroplane date of manufacture: The date of transfer of title (ownership) which is referenced in Airbus documentation at the time of first delivery to an operator.

Updated SRM: Structural Repair Manual (SRM) Revision dated August 2018 (for A319/A320/A321 aeroplanes), or revision dated November 2018 (for A318 aeroplanes), or later revision.

The AOT: Airbus Alert Operators Transmission (AOT) A53N007-14.

Reason:

During A320 family Extended Service Goal full scale fatigue tests, it was demonstrated that the post-repair inspection thresholds for the A320 family external skin repairs defined in the SRM current at that time were insufficient to detect possible cracks developments. The findings were limited to 1.2 mm fuselage skin and covered all cut-out external repairs. The internal repairs are not affected.

This condition, if not detected and corrected, could affect the structural integrity of the fuselage at the repaired skin area(s).

To address this potential unsafe condition, Airbus issued the AOT to provide inspection instructions, and EASA issued AD 2015-0036 to require a one-time inspection of the affected areas and, depending on findings, to accomplish the applicable repair instructions.

After that AD was issued, operators questioned the inspection threshold for A318 aeroplanes (not yet in the AOT), which was actually identical to that for A319 aeroplanes. In addition, an error was detected in paragraph (1), since external doublers may have been installed in the affected area by a modification that may not be recorded as repair. Such doubler installations were also subject to the inspection requirements of the AD, which was therefore revised to provide clarifications, correcting paragraph (1) and introducing a Note.

Since EASA AD 2015-0036R1 was issued, Airbus provided the list of modifications (mod) that introduce external doublers (antenna installation) and determined that the one-time inspection is not required for aeroplanes in post-mod 23310 or post-mod 26106 configuration (structural provisions for antenna installation). Airbus also published the updated SRM, as defined in this AD, identifying additional configurations (aeroplanes embodying structural provisions or external doublers for antenna installation) and including revised instructions for post-repair inspections.

For the reasons described above, this AD is revised to refer to the updated SRM and to include a Note (i.e. Note 2) dealing with the additional configurations related to, or provisioned for, antenna installation.

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

Required as indicated, unless accomplished previously:

Inspection:

(1) Within the compliance time defined in the AOT, as applicable (see Note 1 of this AD), or within 350 flight cycles after 17 March 2015 [the effective date of the original issue of this AD], whichever occurs later, identify whether any fuselage external skin (doubler) installations have been accomplished on fuselage sections 11, 12, 13, 14, 16 and/or 17 (see Note 2 of this AD), and, for each of the identified 1.2 mm fuselage skin areas, as applicable, accomplish an ultrasonic (US) inspection from external, or a low frequency eddy current (LFEC) inspection from internal, in accordance with the instructions of the AOT.

A review of aeroplane maintenance records is acceptable to make the identification of an affected installation, provided those records can be relied upon for the purpose of this requirement.

Note 1: For A318 aeroplanes, the applicable inspection threshold (not in the AOT at original issue) is identical to that for A319 aeroplanes.

Note 2: Aeroplanes in the following configurations have an affected external doubler installation:

- aeroplanes post-mod 23641 and pre-mod 23310;
- aeroplanes post-mod 23570 and pre-mod 23310;
- aeroplanes post-mod 23526 and pre-mod 23310;
- aeroplanes post-Service Bulletin (SB) A320-34-1074 and pre-mod 26106;
- aeroplanes post-mod 32110 and pre-mod 26106;
- aeroplanes post-SB A320-34-1276 and pre-SB A320-53-1139.

(2) As an alternative to the US or LFEC inspection as required by paragraph (1) of this AD, a one-time high frequency eddy current (HFEC) inspection in accordance with Non-destructive Testing Manual (NTM) task 51-10-08 in the cut-out surrounding fastener area (at and in front (~10-15 mm) of the fastener row) can be accomplished, provided this is done after doubler removal and before new extended doubler installation, and within the compliance as specified in paragraph (1) of this AD.

(3) The inspection of an affected repair/installation as required by paragraph (1) of this AD can be delayed, provided that repetitive detailed visual inspections (DET) or HFEC inspections are accomplished on that affected repair/installation within the compliance times defined in, and in accordance with the instructions of the AOT.

Corrective Action(s):

(4) If, during any US or LFEC inspection as required by paragraph (1) of this AD, or during the HFEC inspection as specified in paragraph (2) of this AD, or during any DVI or HFEC inspection as required by paragraph (3) of this AD, as applicable, any crack is found, before next flight, accomplish an applicable repair in accordance with the instructions of the AOT.

Note 3: For an aeroplane inspected and/or repaired in accordance with the instructions of the AOT, post-repair repetitive inspections as specified in the applicable SRM remain applicable for that aeroplane. Refer to paragraph (5) of this AD for post-repair inspection thresholds.

Additional Requirements for Repair:

(5) From 17 March 2015 [the effective date of the original issue of this AD], in case a fuselage external skin (doubler) repair has to be accomplished in accordance with the instructions of a not updated SRM concurrently with accomplishment of the repair, update the post-repair inspection threshold(s) in accordance with the applicable instructions provided in paragraph 4.1.1 of the AOT.

Credit:

(6) Aeroplanes having a date of manufacture after the effective date of this AD at Revision 2 are not affected by the requirements of paragraph (1) to (4) of this AD.

(7) Fuselage external skin (doubler) repairs accomplished in accordance with the instructions of the updated SRM are not affected by the inspection requirement of paragraph (1) of this AD.

Ref. Publications:

Airbus AOT A53N007-14 original issue dated 22 July 2014.

The use of later approved revisions of the above-mentioned document 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. The original issue of this AD was posted on 19 December 2014 as PAD 14-177 for consultation until 02 January 2015 and republished as PAD 14-177R1 on 11 February 2015 for consultation until 25 February 2015. The Comment Response Document can be found in the EASA Safety Publications Tool, in the compressed (zipped) file attached to the record for this AD.

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 – Airworthiness Office – EIAS; Fax +33 5 61 93 44 51;
E-mail: account.airworth-eas@airbus.com.