



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 24-063

Issued: 31 May 2024

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 S.A.S.

Type/Model designation(s):

A321 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 2016-0105R2 dated 08 October 2021.

ATA 53 – Fuselage – Cabin Floor Beam Junction – Inspection

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus 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:

The applicable inspection SB: Airbus Service Bulletin (SB) A320-53-1317, SB A320-53-1318, SB A320-53-1319 and SB A320-53-1320, as applicable to location.

The applicable pre-mod 155607 SB: Airbus SB A320-53-1351, SB A320-53-1352, SB A320-53-1353 and SB A320-53-1354, as applicable to location.

The applicable post-mod 155607 SB: Airbus SB A320-53-1433, SB A320-53-1434, SB A320-53-1435 and SB A320-53-1436, as applicable to location.



Reason:

Following the results of a new full scale fatigue test campaign on the A321 airframe in the context of the A321 extended service goal, it was identified that cracks could develop in the cabin floor beam junctions at fuselage frame (FR) 35.1 and FR 35.2, on both left-hand (LH) and right-hand (RH) sides, also on aeroplanes operated in the context of design service goal.

This condition, if not detected and corrected, could reduce the structural integrity of the fuselage.

Prompted by these findings, Airbus published the applicable inspection SB, as defined in this AD, where each SB contains instructions for a specific location. Consequently, EASA issued AD 2016-0105, requiring repetitive detailed inspections (DET) of the affected cabin floor beam junctions and, depending on findings, accomplishment of a repair.

After that AD was issued, Airbus published the applicable pre-mod 155607 SB, as defined in this AD, providing instructions for modifications which restore the fatigue potential at each location by performing cold working at the cabin floor beam and fitting junction holes. EASA issued AD 2016-0105R1 to introduce this mod for pre-mod 155607 aeroplanes.

After that AD was issued, Airbus published the applicable post-mod 155607 SB, as defined in this AD, providing modification instructions, and EASA issued AD 2016-0105R2 adding them as (optional) modification of post-mod 155607 aeroplanes.

Since that AD was issued, further analysis determined that the compliance time for the inspections must be based also on flight hours (FH).

For the reasons described above, this AD retains the requirements of EASA AD 2016-0105R2, which is superseded, and introduces FH elements in the compliance time.

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:

Inspection(s):

- (1) Before exceeding the compliance time as defined in Table 1 of this AD, and, thereafter, at intervals not to exceed the values as defined in Table 2 of this AD, accomplish a DET of the affected cabin floor beam junctions at each location as specified in Table 3 of this AD in accordance with the applicable inspection SB as defined in Table 3 of this AD.

Table 1 – Inspection Thresholds

Thresholds Whichever occurs later (A and B)	
A	Within 73 900 FH or 36 900 flight cycles (FC) whichever occurs first since the aeroplane first flight
B	Within 18 months from the effective date of this AD, without exceeding 36 900 FC since aeroplane first flight or 2 100 FC since 13 June 2016 [the effective date of EASA AD 2016-0105], whichever occurs later



Table 2 – Inspections Intervals

Intervals Whichever occurs later (A and B)	
A	Within 30 600 FH or 15 300 FC, whichever occurs first
B	Within 18 months after the effective date of this AD, without exceeding 15 300 FC since last inspection

Table 3 – Locations and Applicable Inspection SB

Location	SB
FR 35.1 RH side	A320-53-1317
FR 35.1 LH side	A320-53-1318
FR 35.2 RH side	A320-53-1319
FR 35.2 LH side	A320-53-1320

Corrective Action(s):

- (2) If, during any DET as required by paragraph (1) of this AD, any crack is found at a location of an aeroplane, before next flight, repair that location in accordance with the applicable repair instruction (RI) as defined in Table 4 of this AD, or contact Airbus for approved repair instructions and, within the compliance time specified therein, accomplish those instructions accordingly.

Table 4 – Applicable Repair Instructions

Location	Repair instruction
FR 35.1 RH side	R53212300
FR 35.1 LH side	R53212299
FR 35.2 RH side	R53212302
FR 35.2 LH side	R53212301

- (3) After accomplishment of a repair at a location in accordance with the instructions of the RI as defined in Table 4 of this AD, accomplish the next DET, as required by paragraph (1) of this AD for that location, within 29 700 FH or 14 800 FC, whichever occurs first after the RI embodiment and, thereafter, at intervals not to exceed the values defined in Table 2 of this AD.

Terminating Action:

- (4) Accomplishment of corrective action(s) at a location of an aeroplane as required by paragraph (2) of this AD does not constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD, as applicable, for that location, unless specified otherwise in the instructions provided by Airbus.



Modification:

- (5) After modification at a location of an aeroplane in accordance with the instructions of the applicable pre-mod 155607 SB or post-mod 155607 SB, as defined in Table 5 of this AD, it is allowed to defer the next DET, as required by paragraph (1) of this AD for that location, until 73 900 FH or 36 900 FC, whichever occurs first, after that modification.

Table 5 – Locations and Applicable Modification SB

Location	Modification SB	
	Pre-mod 155607	Post-mod 155607
FR 35.1 RH side	A320-53-1351	A320-53-1433
FR 35.1 LH side	A320-53-1353	A320-53-1435
FR 35.2 RH side	A320-53-1352	A320-53-1434
FR 35.2 LH side	A320-53-1354	A320-53-1436

Ref. Publications:

Airbus SB A320-53-1317 original issue dated 15 December 2015, or Revision 01 dated 19 June 2018, or Revision 02 dated 12 April 2024.

Airbus SB A320-53-1318 original issue dated 09 October 2015, or Revision 01 dated 18 June 2018, or Revision 02 dated 12 April 2024.

Airbus SB A320-53-1319 original issue dated 09 October 2015, or Revision 01 dated 18 June 2018, or Revision 02 dated 12 April 2024.

Airbus SB A320-53-1320 original issue dated 09 October 2015, or Revision 01 dated 18 June 2018, or Revision 02 dated 12 April 2024.

Airbus SB A320-53-1351 original issue dated 20 December 2017, or Revision 01 dated 23 July 2021.

Airbus SB A320-53-1352 original issue dated 20 December 2017, or Revision 01 dated 04 August 2021.

Airbus SB A320-53-1353 original issue dated 20 December 2017, or Revision 01 dated 23 June 2021.

Airbus SB A320-53-1354 original issue dated 20 December 2017, or Revision 01 dated 23 July 2021.

Airbus SB A320-53-1433 original issue dated 28 June 2019.

Airbus SB A320-53-1434 original issue dated 28 June 2019.

Airbus SB A320-53-1435 original issue dated 28 June 2019.



Airbus SB A320-53-1436 original issue dated 28 June 2019.

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 28 June 2024.
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 [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 – 1IASA; E-mail: account.airworth-eas@airbus.com.

