



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 16-110

Issued: 21 July 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 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):

A310 and A300-600 aeroplanes

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

TCDS Number(s): EASA.A.172

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2015-0150, dated 23 July 2015.

ATA 53 – Fuselage – Aft Cargo Door Sill Beam Area – Inspection / Modification

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A310-222, A310-304, A310-308, A310-322, A310-324, A310-325, A300 B4-603, A300 B4-605R, A300 B4-622, A300 B4-622R, A300 C4-605R variant F, and A300 F4-605R aeroplanes, all manufacturer serial numbers.

Reason:

In the frame of the widespread fatigue damage (WFD) compliance study and a dedicated in-service occurrence, the area of the aft cargo door sill beam and adjacent structure were identified as sensitive to the fatigue loads.

This condition, if not detected and corrected, could lead to failure of multiple lock fittings, possibly resulting in loss of the cargo door in flight and consequent explosive decompression of the aeroplane.



To address this potential unsafe condition, Airbus issued Alert Operators Transmission (AOT) A53W005-14 providing inspection instructions and, consequently, EASA issued Emergency AD 2014-0097-E to require repetitive ultrasonic inspections (US) or detailed inspections (DET) of the aft cargo door sill beam area.

After that AD was issued, further analysis indicated that repetitive high frequency eddy current (HFEC) inspections needed to be introduced and Airbus published Service Bulletin (SB) A310-53-2139 and SB A300-53-6179 to provide instructions. Prompted by this determination, EASA issued AD 2015-0150, retaining the requirements of EASA Emergency AD 2014-0097-E, which was superseded, and required repetitive HFEC inspections of the concerned areas. The first HFEC inspection terminated the repetitive US/DET inspections. That AD also required the inspection results to be reported.

Since that AD was issued, Airbus developed a reinforcement modification of the aft cargo door sill beam area and published Airbus SB A310-53-2141 and SB A300-53-6181 to make this available for in-service application.

For the reasons described above, this AD retains the requirements of EASA AD 2015-0150, which is superseded, and requires modification of the aft cargo door sill beam, which constitutes terminating action for the repetitive inspections.

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

Required as indicated, unless accomplished previously:

Re-statement of the requirements of EASA AD 2015-0150:

Note 1: For the purpose of this AD, groups of aeroplanes are defined in Table 1 of this AD.

Table 1 – Aeroplane Group Definitions

Group	Aeroplane condition(s)
1	A one-time HFEC inspection was accomplished in accordance with the instructions of Airbus AOT A53W005-14 [paragraph (3) of EASA AD 2014-0097-E].
2	No HFEC inspection was accomplished in accordance with the instructions of Airbus AOT A53W005-14 and the aeroplane had accumulated more than 18 000 flight cycles (FC) on 25 April 2014 [the effective date of EASA AD 2014-0097-E].
3	No HFEC inspection was accomplished (aeroplane not affected by Airbus AOT A53W005-14) and the aeroplane had accumulated 18 000 FC or less on 25 April 2014 [the effective date of EASA AD 2014-0097-E].

- (1) Within the compliance time specified in Table 2 of this AD, as applicable, and, thereafter, at intervals not to exceed 275 FC, accomplish an US inspection or DET of the aft cargo door sill beam external area in accordance with the instructions of Airbus AOT A53W005-14.



Table 2 – Threshold for Initial Inspection

FC accumulated since aeroplane first flight [on 25 April 2014, the effective date of EASA Emergency AD 2014-0097-E]	Compliance Time
30 000 FC or more	Within 50 FC after 25 April 2014 [the effective date of EASA AD 2014-0097-E]
18 000 FC or more, but less than 30 000 FC	Within 275 FC after 25 April 2014 [the effective date of EASA AD 2014-0097-E]
Less than 18 000 FC	Before exceeding 18 275 FC since aeroplane first flight

- (2) If, during any inspection as required by paragraph (1) of this AD, any crack is found, before next flight, contact Airbus for approved repair instructions and accomplish those instructions accordingly.
- (3) Accomplishment of a HFEC inspection in accordance with the instructions of Airbus AOT A53W005-14, and, depending on findings, accomplishment of applicable corrective action(s) before next flight after that HFEC inspection in accordance with approved Airbus instructions, constitutes terminating action for the repetitive US/DET inspections as required by paragraph (1) of this AD for that aeroplane.
- (4) Within 30 days following the initial US inspection or DET, as required by paragraph (1) of this AD, report the inspection results, including no findings, to Airbus.
- (5) In addition to the inspections as required by paragraph (1) of this AD, within the compliance time as defined in Table 3 of this AD, as applicable to aeroplane group, and, thereafter, at intervals not to exceed 4 600 FC, accomplish a HFEC inspection of the affected areas in accordance with the instructions of Airbus SB A310-53-2139 or SB A300-53-6179, as applicable.

Table 3 – HFEC Inspection Threshold

Group	Compliance Time
1	Within 4 600 FC after the HFEC inspection in accordance with Airbus AOT A53W005-14
2	Within 2 000 FC after 06 August 2015 [the effective date of EASA AD 2015-0150]
3	Before exceeding 13 000 FC since aeroplane first flight, or within 2 000 FC after 06 August 2015 [the effective date of EASA AD 2015-0150], whichever occurs later

Accomplishment of the first HFEC inspection on an aeroplane, as required by paragraph (5) of this AD, constitutes terminating action for the repetitive US/DET inspections as required by paragraph (1) of this AD for that aeroplane.



- (6) If, during any inspection as required by paragraph (5) of this AD, any crack is found, before next flight, contact Airbus for approved repair instructions and, within the compliance time specified therein, accomplish the repair accordingly.
- (7) Repair of an aeroplane as required by paragraph (6) of this AD does not constitute terminating action for the repetitive inspections required by paragraph (5) of this AD.

New requirements of this AD:

- (8) Within the compliance time specified in Table 4 of this AD, reinforce the aft cargo door sill beam area in accordance with the instructions of Airbus SB A300-53-6181 or A310-53-2141, as applicable.

Table 4 – Reinforcement / Modification

Compliance Time (whichever occurs later A , B , or C)	
A	Before exceeding 19 600 FC since aeroplane first flight
B	Within 2 300 FC after the last HFEC or DET Inspection in accordance with Airbus SB A300-53-6179 or A310-53-2139
C	Within 12 months after the effective date of this AD

- (9) Modification of an aeroplane as required by paragraph (8) of this AD constitutes terminating action for the repetitive inspections required by this AD for that aeroplane.

Ref. Publications:

Airbus AOT A53W005-14 original issue dated 22 April 2014, or Revision 01 dated 29 April 2014.

Airbus SB A300-53-6179 original issue dated 12 December 2014.

Airbus SB A310-53-2139 original issue dated 12 December 2014.

Airbus SB A300-53-6181 original issue dated 26 June 2015.

Airbus SB A310-53-2141 original issue dated 26 June 2015.

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 18 August 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 – EIAW (Airworthiness Office),
E-mail: continued.airworthiness-wb.external@airbus.com.

