



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 17-035

Issued: 20 March 2017

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):

A319, A320 and 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 2014-0081 dated 31 March 2014.

ATA 53 – Fuselage – Potable Water and Waste Water Service Panels – Reinforcement

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus 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, except those on which Airbus modification (mod) 160055 or mod 160056 has been embodied in production, and except A319 aeroplanes on which mod 28162, 28238 and 28342 have been embodied ("Corporate Jet").

Reason:

During the full scale fatigue test on A320-200, it was noticed that, due to fatigue, cracks could initiate at the potable water and waste water service panel areas.

This condition, if not detected and corrected, could affect the structural integrity of the aeroplane.



Prompted by these findings, Airworthiness Limitation Section (ALS) Part 2 tasks were introduced for the affected aeroplanes. Since those actions were taken, Airbus developed production mod 160055 and mod 160056 to embody reinforcements (cold working on certain rivet rows) of the potable water and waste water service panels, and published associated Airbus Service Bulletin (SB) A320-53-1272 and Airbus SB A320-53-1267 for in-service embodiment. Complementary design office studies highlighted that the “Sharklets” installation on certain aeroplanes has a significant impact on the aeroplane structure (particularly, A319 and A320 post-mod 160001, A320 post-SB A320-57-1193 (mod 160080), and A321 post-mod 160021), leading to different compliance times, depending on aeroplane configuration.

Consequently, EASA issued AD 2014-0081 to require reinforcement of the potable water and waste water service panels. Accomplishment of these modifications cancelled the need for the related ALS Part 2 Tasks.

Since that AD was issued, further investigations linked to the Widespread Fatigue Damage (WFD) analysis highlighted that, to meet the WFD requirements, it is necessary that the affected modification is not accomplished before reaching a certain threshold, by imposing a so-called “window of embodiment”. Consequently, Airbus revised SB A320-53-1272 (now at revision (Rev.) 04) and SB A320-53-1267 (now at Rev. 05).

For the reasons described above, this AD retains the requirements of EASA AD 2014-0081, which is superseded, and introduces additional compliance times for those actions.

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

Required as indicated, unless accomplished previously:

- (1) Within the compliance times as specified in Appendix 1 of this AD, as applicable, modify the potable water service panel in accordance with the instructions of Airbus SB A320-53-1272 Rev. 04.
- (2) Within the compliance times as specified in Appendix 2 of this AD, as applicable, modify the waste water service panel in accordance with the instructions of Airbus SB A320-53-1267 Rev. 05.
- (3) For aeroplanes on which the modification, as required by paragraph (1) or (2) of this AD, as applicable, was accomplished before reaching the applicable threshold (window of embodiment) as defined in Appendix 1 or 2 of this AD, as applicable, before exceeding 60 000 flight cycles (FC) since aeroplane first flight, contact Airbus for approved corrective action instructions and accomplish those instructions accordingly.
- (4) For A320 aeroplanes, not embodying mod 160001 and not embodying SB A320-57-1193, and having exceeded 46 400 FC since aeroplane first flight, if cracks are found during accomplishment of ALS Part 2 Task N° 534126-01-3, before next flight, contact Airbus for corrective action instructions and accomplish those instructions accordingly.
- (5) Modification of an aeroplane, prior to the effective date of this AD in accordance with the instructions of Airbus SB A320-53-1272 at original issue, or Rev. 01, or Rev. 02, or Rev. 03 is



acceptable to comply with the requirements of paragraph (1) of this AD for that aeroplane. Requirements of Paragraph (3) of this AD remain applicable.

Modification of an aeroplane, prior to the effective date of this AD in accordance with the instructions of Airbus SB A320-53-1267 at original issue, or Rev. 01, or Rev. 02, or Rev. 03, or Rev. 04 is acceptable to comply with the requirements of paragraph (2) of this AD for that aeroplane. Requirements of Paragraph (3) of this AD remain applicable.

- (6) Modification of an aeroplane as required by paragraph (1) of this AD cancels the need to accomplish the ALS Part 2 task for that aeroplane as specified in Table 1 of this AD, as applicable.

Table 1 – ALS Part 2 Task terminated after Potable Water Service Panel Reinforcement

Affected Aeroplanes	ALS Part 2 Task N°
A319, pre-mod 160001 and pre-SB A320-57-1193	534125-01-2
A319, post-mod 160001 or post-SB A320-57-1193	534125-01-5
A320, pre-mod 160001 and pre-SB A320-57-1193	534125-01-3
A320, post-mod 160001 or post-SB A320-57-1193	534125-01-6
A321 pre-mod 160021	534125-01-4
A321 post-mod 160021	534125-01-7

- (7) Modification of an aeroplane as required by paragraph (2) or (4) of this AD cancels the need to accomplish the ALS Part 2 task for that aeroplane as specified in Table 2 of this AD, as applicable.

Table 2 – ALS Part 2 Task terminated after Waste Water Service Panel reinforcement

Affected aeroplanes	ALS Part 2 Task N°
A319, pre-mod 160001 and pre-SB A320-57-1193	534126-01-2
A319, post-mod 160001 or post-SB A320-57-1193	534126-01-5
A320, pre-mod 160001 and pre-SB A320-57-1193	534126-01-3
A320, post-mod 160001 or post-SB A320-57-1193	534126-01-6
A321 pre-mod 160021	534126-01-4
A321 post-mod 160021	534126-01-7



Ref. Publications:

Airbus SB A320-53-1267 original issue dated 24 June 2013, or Rev. 01 dated 02 October 2013, or Rev. 02 dated 19 May 2014, or Rev. 03 dated 26 November 2015, or Rev. 04 dated 01 February 2016 or Rev. 05 dated 29 November 2016.

Airbus SB A320-53-1272 original issue dated 10 January 2013, or Rev. 01 dated 06 August 2013, or Rev. 02 dated 19 May 2014, or Rev. 03 dated 26 November 2015, or Rev. 04 dated 29 November 2016.

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 17 April 2017.
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 - Airworthiness Office - EIAS, Fax +33 5 61 93 44 51.
E-mail: account.airworth-eas@airbus.com.



Note 1: For the purpose of Appendix 1 and 2 of this AD, A321-111, A321-112 and A321-131 aeroplanes are collectively referred to as “A321-100”. Similarly, A321-211, A321-212, A321-213, A321-231 and A321-232 aeroplanes are collectively referred to as “A321-200”.

Appendix 1 – Potable Water Service Panel Reinforcement

Affected Aeroplanes (see Note 1 of this AD)	Modification Threshold (window of embodiment – not before accumulating the specified FC since aeroplane first flight)	Compliance Time (before exceeding the specified FC since aeroplane first flight)
A319, pre-mod 160001 and pre-SB A320-57-1193	33 100 FC	48 500 FC
A319, post-mod 160001 or post-SB A320-57-1193	None	46 000 FC
A320, pre-mod 160001 and pre-SB A320-57-1193	25 100 FC	54 200 FC
A320, post-mod 160001 or post-SB A320-57-1193	None	48 300 FC
A321-100	25 100 FC	60 000 FC
A321-200 pre-mod 160021	22 100 FC	
A321-200 post-mod 160021	None	



Appendix 2 – Waste Water Service Panel Reinforcement

Affected Aeroplanes (see Note 1 of this AD)	Modification Threshold (window of embodiment – not before accumulating the specified FC since aeroplane first flight)	Compliance Time (before exceeding the specified FC since aeroplane first flight)
A319, pre-mod 160001 and pre-SB A320-57-1193	38 600 FC	44 400 FC
A319, post-mod 160001 or post-SB A320-57-1193	None	43 600 FC
A320, pre-mod 160001 and pre-SB A320-57-1193	35 800 FC	See Appendix 3 of this AD
A320, post-mod 160001 or post-SB A320-57-1193	5 400 FC	39 200 FC
A321-100	36 900 FC	52 500 FC
A321-200 pre-mod 160021	35 700 FC	53 500 FC
A321-200 post-mod 160021	None	51 200 FC

Appendix 3 – Waste Water Service Panel Reinforcement for A320 aeroplanes, pre-mod 160001 and pre SB A320-57-1193

Compliance Time (whichever occurs later, A or B)	
A	Before exceeding 46 400 FC since aeroplane first flight
B	Within 2 300 FC since last accomplishment of ALS Part 2 Task N°534126-01-3 without exceeding 48 000 FC since aeroplane first flight

