



COMMENT RESPONSE DOCUMENT

EASA PAD No. 16-107

[Published on 18 July 2016 and officially closed for comments on 15 August 2015]

Commenter 1: Brussels Airlines – Andy Vanaerschot – 27/07/2016

Comment # 1

I have reviewed PAD 16-107: “ATA 52 – Doors – Forward and Aft cargo compartment doors – inspection” for the Brussels Airlines fleet, and have following remarks about next paragraphs:

- A. Paragraph (5): After discussing with Airbus about the SB, they confirmed to us that the Cold Work SB is appropriate to the fleet and postpones the SMP to Point of Embodiment + 18500 FC. However in this paragraph, it is mentioned

“...may be delayed,...”:

Is it not certain that the application of this SB postpones the SMP of the final modification?

- B. “...before exceeding 18500 FC since first installation of the FWD cargo door on an aeroplane...”:

It is not specifically mentioned as in paragraph (4): “or within 12 months after the effective date of this AD”. We already took action and planned the cold work SB for our fleet, however these exceed the threshold of 18500 FC. This is different to what Airbus has communicated that there is a grace period and the cold work SB is also valid for aircraft exceeding the 18500 FC.

- C. Paragraph (13): we have similar remarks

“...may be delayed,...”:

Is it not certain that the application of this SB postpones the SMP of the final modification?

- D. “...before exceeding 18500 FC since first installation of the FWD cargo door on an aeroplane...”:

It is not specifically mentioned as in paragraph (12): “or within 12 months after the effective date of this AD”. We already took action and planned the cold work SB for our fleet, however these exceed the threshold of 18500 FC. This is different to what Airbus has communicated that there is a grace period and the cold work SB is also valid for aircraft exceeding the 18500 FC.

EASA response:



- A. Comment partially agreed. Actually, paragraph (6) makes clear that, after cold working, there is additional time (another 18,500 FC) for the final modification. The Final AD has been amended to use the word 'deferred', rather than 'delayed', and to include a cross-reference in paragraph (5) to paragraph (6).**
- B. Comment agreed. A grace period of 12 months has been introduced for accomplishing the cold working modification, as specified in paragraphs (5) and (13) of the Final AD.**
- C. Comment partially agreed. See EASA answer to Comment #1, point A, above.**
- D. Comment agreed. See EASA answer to Comment #1, point B, above.**

Commenter 2: Air Canada – Robert Giolti – 28/07/2016

Comment # 2

The proposed EASA PAD 16-107 has a repetitive interval of 1,400 FC for the FWD and AFT cargo doors. Previous AD 2015-0192, a repeat interval of 1,100 FC for the FWD cargo door, and 550 FC for the AFT cargo door. The previous requirement was a DET inspection, whereas the proposed AD will require an NDT inspection. We understand the NDT solution was introduced to fulfil WFD FAR 26.21 regulation requirement.

However, the repeat NDT threshold of 1,400 FC, does not take into consideration the different operations and age range of the world wide fleet. ACA's fleet is below 12,000 FC & 80,000 FH. This is nowhere close to the MPPT trigger of 100,000 FH / 33,000 FC. Our fleet is not close to the MPPT and therefore requesting an escalation of the repeat interval with respect to the flying cycles of our fleet.

MPD Rev 21 (NOV 2015) list the annual utilization rate at 367 FC to 2,220 FC. ACA's fleet is currently about 825 FC per year. The 1,400 FC would not align with a scheduled heavy maintenance visit, and force the inspection to line maintenance on an overnight. Any corrective action will have a negative impact on our operation.

ACA requests Airbus to revisit the proposed NDT inspection interval of 1,400 FC, and provide a revised repeat schedule with a range of intervals based on the current flying cycles of each operator.

EASA response:

Comment not agreed. In view of the results of the risk assessment, a longer compliance time for the fleet cannot be justified. For individual extensions, the AMOC process (or, in Europe, a temporary exemption under the provisions of Article 14.4 of the Basic Regulation) can be used.

No changes have been made to the Final AD in response to this comment.



Commenter 3: Lufthansa Technik AG – John Donegan – 05/08/2016**Comment # 3**

Please find herewith our comments:

- A. The SB 52-3087, 3095, 4095, 4101, 5020 & 5023 in Revision 2 include a requirement for HFEC inspection around the collars in the frame fork areas as marked in several SB Figures. Following query from LHT, raised from operator SXD, Airbus has since acknowledged that (at least for A330 and A340-200/300 aircraft) solid rivets may have been installed in production at several affected locations, a configuration not addressed in the SB Revision 2. The SBs cannot, therefore, be performed as per the SB figures on those aircraft. Airbus has not yet identified to LHT, which aircraft may be affected by this configuration. In addition, the figures in the SB Revision 2 listing the installed fasteners also all omit the configuration with solid rivets. Airbus has indicated to LHT that a further SB revision is required to address this situation and correct the figures. Therefore on behalf of the affected operators, LHT requests that the AD is withheld, until such time as a technical procedure is provided for doors with that configuration, a global AMOC is issued or explicit technical instructions are provided in the AD.
- B. LHT is concerned about the requirements proposed in SB 52-3087, 3095, 4095, **4101, 5020 & 5023 in Revision 2, to remove sealant at the edges of the frame forks to the outer skin of the cargo doors in such regular intervals (approx. every C-Check)** at approx. 20 positions for each cargo door, when the crack growth and HFEC inspection area indicates that the critical damaged area is around the bores in the frame forks and not edge damage. Airbus has not yet been able to provide LHT with a plausible justification for the need to remove the sealant at the areas marked in the SB, if the area around the bores is clean and not interfering with the inspections. This represents increased economic burden on operators, without contributing to alleviation of the airworthiness concern. LHT requests EASA to permit operators to omit sealant removal at the areas identified in the SBs, in cases where the visual and SDI can be performed around the bores without its removal. Example photos have been provided to Airbus with Tech Request 80187890.
- C. “Required Action..” (1), (4), (5), (9), (12), (13) provide compliance times based on “FC since first installation...on an aeroplane”. As cargo compartment doors are removable structural components, it is recommended to change the wording to “total door flight cycles” or similar, so that it is clear that it is since first installation on any aeroplane, and not just the current aeroplane.
- D. (18) states that the corrective actions do not constitute a terminating action for the inspections. As an approved corrective action will be required (e.g. from Airbus) this may include an alternative inspection method/compliance time or indeed include a terminating action. Allowance should be made in the AD for such a case, localized termination of the inspections may be possible.
- E. It should also be noted that a corrective action may not terminate the modification requirements of the SBs.



- F. Under “Applicability”, aircraft delivered with POST 202702 and 202790 in production are exempt from the AD. However, as the doors are removable structural components, such aircraft may subsequently be fitted with a PRE MOD door. It should be considered that such a status should make that aircraft affected by the AD.
- G. Similarly, the installation of a POST 202702 and 202790 in-service on an A330 or A340 (which was not delivered so) should terminate the inspection and modification requirements detailed in the AD for that aircraft, on the affected door, so long as that door remains installed on that aircraft. It is LHT understanding that a POST 202702 or 202790 cannot be physically installed on A340-500/600.

EASA response:

- A. Comment not agreed. The illustration within the Inspection SB represents the situation post repair, after finding during inspection, and is showing the principle (typical illustration), not the configuration of every affected aeroplane. Airbus confirmed that the required HFEC can be accomplished on these aeroplanes.**
- B. Comment agreed. It is confirmed that the area of sealant to be removed in preparation for the HFEC inspection (beam 4 area; note 4) could be reduced. Based on good workmanship principles for NDT application, it should be the decision of the operator how much sealant must be removed to allow accomplishment of the inspection. As first crack initiation starts at the boreholes, potentially followed by cracking at the edges, the instructions have to be followed. Without any cracks at the boreholes, the sealant at edges probably does not need to be removed. The illustration should be seen as an orientation. It is also confirmed that the required HFEC inspection can be accomplished as required without change of SB.**
- C. Comment not agreed. EASA consider that the current wording is appropriate and it is EASA standard AD writing. We may reconsider in future, but at this time, we see no need to deviate from our long established standard.**
- D. Comment not agreed. Paragraph (18) only refers to corrective action per an Airbus SB, as specified in paragraph (17), for which it has already been established that these do not provide terminating action. For any other Airbus instructions, an AMOC could be requested, which (to be determined) could be terminating action. The Final AD already provides for such an option – see Remarks section.**
- E. Comment not agreed. The wording ‘terminating action’ in an AD signifies that ‘repetitive’ actions (which have already been started) can be terminated, or not, as the case may be. If the corrective actions as the result of an inspection would terminate some repetitive inspections, that would be mentioned. As that is not the case here, our AD writing standard prefers to specify that it does not. Modification, almost by definition, is a one-time action, therefore using the word ‘terminating’ is not relevant.**
- F. Comment not agreed. Pre-mod 202702 and pre-mod 202790 cargo doors are not eligible for installation on post-mod aeroplanes, originally equipped with post-mod 202702 and post-mod 202790 doors in production, valid for MSN 1417 and up. No Airbus SB exists that would allow such a modification.**
- G. Comment understood. At this time, design data and IPC information exist to install a post-mod 202702 or post-mod 202790 cargo door on a pre-mod aeroplane for a dedicated aeroplane population. However, in Airbus documentation, those post-mod doors (P/N) are-not eligible for**



common installation. In case a modification proposal would be made to EASA (by anyone other than Airbus), this would be an STC application. In addition, that STC would have to be approved as AMOC to the AD to ensure the recognition as 'terminating' action for the inspections. Finally, it is confirmed that post-mod 202702 and post-mod 202790 cargo doors cannot be installed on A340-500/600 aeroplanes.

No changes have been made to the Final AD in response to this comment.

Commenter 4: Cathay Pacific Airways Limited – Jimmy Cheng – 10/08/2016

Comment # 4

CPA have the below queries regarding PAD 16-107:

- A. With regards to the FWD Cargo and AFT Cargo Doors per Paragraph (5) and (13) respectively, the PAD only specifies that the reinforcement modifications per paragraph (4) and (12) for the FWD and AFT Cargo Doors respectively, can be delayed if cold working is accomplished before exceeding 18500FC, but not earlier than the values specified in the relevant SBs. However, there are many aircrafts that have exceeded 18500FC, but PAD 16-107 have not provided any instructions regarding these aircrafts. Please can EASA include instructions/authorisations for the below scenarios:
- Scenario 1: If the Cold work have already accomplished for aircrafts exceeded 18500FC prior to the issuance of the AD, will these aircrafts be authorised to delay the reinforcement modification for the 18500FC from POE?
- Scenario 2: After the issuance of the AD, will the aircrafts that have exceeded 18500FC be authorised to carry out the cold work within 12 months to delay the reinforcement modification? Similar to the 12 months grace period given in paragraph (4) for the reinforcement modification for aircrafts that have exceeded 18500FC since first installation.
- B. With regards to the AFT Cargo Door, in accordance to NOTE 3, paragraph (12), (13) and (14) are not applicable to post mod aircrafts classified per NOTE 2. The interpretation of this means that there are no terminating actions for the inspection requirements of paragraph (9) for Post Mod aircrafts. Based on Airbus Mod 44852, 44854, SB-A330-52-3044 and SB-A340-52-4054, the majority of the A330 and A340 in the world are Post-Mod, meaning that most aircrafts do not have an option to terminate the inspection per paragraph (9). Is this the correct intent of EASA and Airbus? This seems to suggest that the modifications were a penalty rather than an enhancement. Or will there be an alternate solution made available in the near future for terminating the inspection program for the AFT Cargo Doors on Post Mod aircrafts?
- If so, please can EASA postpone the issuance of this AD until the terminating action is available in order to provide operators the options, since the current AD-2015-0192 is already in place to mandates the requirements for maintaining airworthiness hence there is no urgency to expedite this AD until ALL options are completed and available?



In addition, a high number of aircrafts are experiencing missing/loose fasteners at a frequency higher than the inspection program, which in accordance to Airbus has been “anticipated” and “...are not affecting the structural behaviour of the subject area.”, therefore operators would definitely require a terminating action to not just terminate the AD inspection requirements but to eliminate these disruptions. Operators would need to know what the plan is for the AFT Cargo Doors in terms of the Reinforcement Modification (Terminating action) and the Cold Work option to postpone the terminating action.

- C. For the effective date, operators would prefer to have a minimal of 1 months or 30 days after the issuance of the AD to allow operators to provision and setup all the necessary action, especially for this AD which includes 26 SBs.

EASA response:

A. Scenario 1: Comment partially agreed. See EASA answer to Comment #1, point A.

Scenario 2: Comment agreed. See EASA answer to Comment #1, point B, above.

B. Comment agreed. For post-mod aeroplanes as defined in the Final AD, it is confirmed that the reinforcement modification constitutes terminating action for the repetitive inspections. A new paragraph (15) has been added to the Final AD (and consecutive paragraphs re-numbered) to confirm that. For the missing rivets, not directly connected to the unsafe condition addressed by this AD, these events are processed like any other in-service occurrence, through the reporting system.

C. Comment not agreed. All Airbus service publications for the new inspections, as well as those for the reinforcement, have been available to all operators since February 2016. Those SBs clearly indicate that AD action is expected. In July 2016, EASA issued PAD 16-107, adding to the signal that an AD was coming. Taken together, that means at minimum, 2 months (since PAD issuance until Final AD) could have been used for planning purposes – at best, even 7 months (since SB issuance) could have been used. Regarding the 26 SBs, it should be noted that, apart from the AOTs, for any individual aeroplane (MSN), only two SBs would be needed, or three, if the cold working option is applied. No changes have been made to the Final AD in response to this comment.

