

COMMENT RESPONSE DOCUMENT

EASA PAD No. 22-129

[Published on 27 September 2022 and officially closed for comments on 25 October 2022]

Commenter 1: Singapore Airlines Limited – Soh Kian Ann – 28/09/2022

Comment # 1

May I seek clarification on the grouping of aeroplanes in Table 1? Although Applicability of this PAD states that aeroplanes with Airbus mod 161230 embodied are not affected by this AD. However, it is not clear whether aeroplanes with Airbus mod 161230 embodied belong to any group listed in Table 1.

Can EASA advise whether aeroplanes with Airbus mod 161230 embodied belong to any group listed in Table 1?

EASA response:

Comment noted. All aeroplanes with Airbus modification 161230 embodied are excluded from the Applicability of the AD. Consequently, none of the requirements of the AD apply to those aeroplanes. The configurations listed in Table 1 – Groups are therefore irrelevant for those aeroplanes.

Commenter 2: Private Person – Chatushka Dias – 04/10/2022

Comment # 2

Why did you issue this AD?

EASA response:

Comment noted. The 'Reason' section of the AD explains the unsafe condition.



Commenter 3: Cathay Pacific Airways Limited – Gary Chan – 06/10/2022

Comment # 3

Regarding to EASA PAD 22-129 Table 1 – Groups, we are looking for further clarification on Group 6.

It is stating that MSN on which the first rework has been performed in accordance with the instruction of SB 53-1402 **AND** SB 53-1403 at REV 00 or 01 would be classify as Group 6.

However, there is one aircraft B-HTG (MSN: 1695) in our fleet which has accomplished first rework in accordance with SB 53-1403 (RH) but not SB 53-1402 (LH) due to no crack finding on LHS.

Please advise if both SBs (first rework) are required to be accomplished in order to classify the aircraft as “Group 6”.

EASA response:

Comment agreed. Table 1 of the AD was split into LH and RH side configurations.

Commenter 4: Deutsche Lufthansa AG – Martin Siring – 20/10/2022

Comment # 4

DLH has reviewed PAD 22-129 and would like to raise the following comments:

- I. Group Definitions as per Table 1
 - a. We suggest amending the definition of Groups 5 and 6 to “in accordance with SB 53-1402 (LH) and/or SB 53-1403 (RH)” as it has been phrased for Groups 3 and 4.
 - b. We recommend that Groups 2 and 6 will be merged since they have the same inspection compliance times as per table 2. If EASA accepts this, Table 2 will require a revision and merging of the two compliance times, which would be in line with superseded EASA AD 2019-0173. In this case, the different compliance scenarios will be reduced, resulting in a more simplified compliance tracking.
 - c. Analogue to I.b., we suggest merging Groups 3 and 5 and adapting Table 2.
 - d. In the definition of Group 6, the reference to the safety cut is missing.



II. Compliance Times as per Table 2

- a. Group 1 Threshold refers to “since aeroplane date of manufacture” and “since aeroplane first flight”. Please clarify or potentially correct the latter.
- b. Please introduce an “and/or” statement in the threshold definitions for Groups 2, 3 and 4 to highlight that the concurrent embodiment of the RHS/LHS Modification Service Bulletins and/or Repairs is not required.
- c. Analogue to Groups 6, 7 and 8, we suggest a phrasing for Group 5 such as “since stiffener removal” and hence omitting the reference to the inspection SBs to highlight that a repair has been performed. Especially if comment I.c. is agreed, it will reduce the complexity of the compliance definitions.
- d. Airbus amended the possibility to benefit from an extended re-inspection threshold in case of the stiffener removal during a repair. As detailed in the inspection SBs, if no crack has been detected during an inspection following the repair as per repair R531-13452 solution A/B/C, it is accepted to embody modification SBs A320-53-1406 (-1407) and benefit from the increased inspection threshold. It is unclear why Rev. 02 of the inspection SBs does not reflect a stiffener removal during the repair performance, which results in an increased subsequent inspection threshold.

III. Reporting Requirement

- a. Considering the amended compliance times with reduced inspection thresholds and intervals, can EASA please revise the requirement of (3) Reporting so that for subsequent inspections the reporting must be performed in case of finding only.
- b. In regards to (6) Terminating Action, will it be required to perform the reporting to Airbus for aircraft that have been repaired and will be inspected per Airbus approved instructions as detailed in (4) Credit?

In addition to our comments above, we would like to highlight that the superseded AD 2019-0173 already imposed a complex compliance tracking on the CAMO, based on the two inspection SBs, covering two repair scenarios, and the possibility to perform four modification SBs. Additionally, an extensive repair review had to be performed, identifying the individual repair approvals and subsequent inspections.

With the introduction of the Revision 02 of the inspection SBs and the proposed AD, the complexity has again been increased, which resulted in the creation of the eight groups and compliance scenarios. We hope that Airbus and EASA are aware of the implications, especially considering future SB and/or AD revisions and that the airlines will receive the required support, i.e. through additional awareness sessions.

EASA response:

Comment Ia noted. See answer to Commenter #3 above.

Comment Ib and Ic not agreed. Defining the threshold and interval in one line per Group provides more clarity. No changes have been made to the final AD in response to this comment.



Comment Id not agreed. The rework consists in performing a safety cut. No changes have been made to the final AD in response to this comment.

Comment IIa agreed. The final AD has been updated to refer to aeroplane first flight.

Comments IIb and IIc noted. See answer to Commenter #3 above.

Comment IId noted. The purpose of the repair is to eliminate the finding. Any further action during repair application is considered a deviation to the instructions and Airbus may be contacted for RDAF approval on a case by case basis.

Comment IIIa agreed. The final AD has been amended to require reporting only after SDI finding.

Comment IIIb noted. Reporting is not required unless specified otherwise in approved instructions from Airbus.

Commenter 5: United Airlines – Muhammad Tahir – 24/10/2022

Comment # 5

It is recommended to remove the revision number of ISBs A320-53-1402 & A320-53-1403 in the “Definitions” Section of the PAD as it can be interpreted that the PAD is limited to Revision 02 of the aforementioned ISBs only.

EASA response:

Comment not agreed. The use of inspection SBs A320-53-1402 and A320-53-1403 at Revision 2 will be required from the effective date of the final AD since those SBs contain the most up to date information. Credit is given through AD paragraph (5) for actions accomplished before the effective date of the final AD in accordance with any previous SB issue.

Commenter 6: Delta Air Lines – Stephen Hill – 24/10/2022

Comment # 6

Reference:

(A) EASA Proposed Airworthiness Directive: PAD No. 22-179, dated 27 Sep 22

(B) EASA Airworthiness Directive: No. 2019-0173, dated 18 Jul 19



- (C) Airbus Service Bulletin (SB) A320-53-1402
- (D) Airbus Service Bulletin (SB) A320-53-1403
- (E) Airbus Service Bulletin (SB) A320-53-1404
- (F) Airbus Service Bulletin (SB) A320-53-1405
- (G) Airbus Service Bulletin (SB) A320-53-1406
- (H) Airbus Service Bulletin (SB) A320-53-1407
- (I) Airbus Service Bulletin (SB) A320-53-1335
- (J) Airbus Service Bulletin (SB) A320-53-1336

Comment #1

Commenter Request

Revise Service Bulletin references where the full document number is not given.

Request justification

In several locations from REF (A), Service Bulletin references are made but without including the Fleet-type specification on the bulletin's full document number. Not listing the Fleet-type specific in the full document number is not consistent with the remainder of the Service Bulletin references made throughout REF (A). See below for an example of the difference between the two formats used in the proposed rule:

- No Fleet-type specification included: SB 53-1335
- Fleet-type specification included: SB A320-53-1335

This difference in verbiage would not likely lead to any misinterpretations of the proposed rule, but could be confusing to those that aren't familiar with Service Bulletin document number formatting. Regardless, correction of this inconsistency would ensure that all references to a given bulletin are identical.

List paragraphs that change; describe (nonobvious) changes

Revise SB references to include 'A320-' as detailed in the following REF (A) locations:

- The Modification SB:
Replace "SB 53-1335 (LH) and SB 53-1336 (RH)" with "SB A320-53-1335 (LH) and SB A320-53-1336 (RH)"
- Table 1, Group 5:
Replace "SB 53-1402 (LH) and SB 53-1403 (RH)" with "SB A320-53-1402 (LH) and SB A320-53-1403 (RH)"



- Table 1, Group 6:
Replace “SB 53-1402 (LH) and SB 53-1403 (RH)” with “SB A320-53-1402 (LH) and SB A320-53-1403 (RH)”
- Table 2, Group 2:
Replace “SB 53-1404 (RH) and SB 53-1405 (LH)” with “SB A320-53-1404 (RH) and SB A320-53-1405 (LH)”
- Table 2, Group 3:
Replace “SB 53-1406 (RH) and SB 53-1407 (LH)” with “SB A320-53-1406 (RH) and SB A320-53-1407 (LH)”
- Table 2, Group 4:
Replace “SB 53-1335 (LH) and SB 53-1336 (RH)” with “SB A320-53-1335 (LH) and SB A320-53-1336 (RH)”
- Table 2, Group 5:
Replace “SB 53-1402 (LH) and SB 53-1403 (RH)” with “SB A320-53-1402 (LH) and SB A320-53-1403 (RH)”

Comment #2

Commenter Request

Request for clarification on / revision of ‘Groups’ definition.

Request justification

The ‘Group’ definition from REF (A) states the following: “Groups: See Table 1. An aeroplane can belong to more than one Group, depending on the RH / LH configuration.”

Table 1 includes a list of eight (8) total groups, with different qualifying criteria for each aircraft side (LHS and RHS) based on prior SB accomplishment or repair drawing usage.

Delta understands the verbiage in the ‘Group’ definition to mean that at most, an aircraft can have two groups: one for LHS ‘affected part’ configuration and one for RHS ‘affected part’ configuration. Delta believes this verbiage from the ‘Group’ definition could be considered unnecessarily vague/open-ended because it is stated that there can be more than one group, but it is not specified that:

- 1) There is a maximum of two (2) groups per aircraft
- 2) On a given aircraft, there is one (1) applicable group per side (LHS / RHS) and these groups may or may not be the same
- 3) The relevant ‘configuration’ is that of the ‘affected part’ (as defined by the AD) at the LHS or RHS, not the entire aircraft configuration on the LHS or RHS



Delta is requesting review of the verbiage in the 'Group' definition and confirmation of the interpretation provided above because if misinterpreted, selecting the wrong group(s) for an aircraft would lead to use of incorrect time of accomplishment options and potential AD overrun. If Delta's interpretation provided above is accurate, please consider revising the verbiage used in the 'Group' definition as indicated below to help add clarity and reduce the risk of misinterpretation. If Delta's understanding of the definition is not correct (i.e., it is possible that an aircraft has more than two groups), please provide additional details/context.

List paragraphs that change; describe (nonobvious) changes

For the 'Group' definition, revise as follows or similarly:

- "Groups: See Table 1. An aeroplane can belong to two distinct groups, one for each applicable configuration of the affected part (LHS and RHS)."

Comment #3

Commenter Request

Request for clarification on / revision of 'Table 1 - Groups' and 'Table 2 – SDI Threshold(s) and Interval(s)'.

Request justification

Table 1 includes a list of eight (8) total groups, with different qualifying criteria for each aircraft side (LHS and RHS) based on prior SB accomplishment or repair drawing usage.

Delta understands (as discussed in Comment #2 above) that each 'affected part' configuration, LHS and RHS, can be unique and hence, the applicable 'Group' can also be unique. Groups 2 through 4 all use 'and/or' operators to indicate that one or both of the qualifying conditions (i.e. embodiment(s) of 'The Modification SB') is sufficient for being in that group. See below for example from Table 1:

"Group 3: MSN that are post SB A320-53-1406 (RH) and/or post SB A320-53-1407 (LH)"

NOTE: SB A320-53-1406 and A320-53-1407 accomplish the same on-wing work, one bulletin is for the aircraft LHS and one is for the RHS. Per the subject bulletins, it is not a requirement to accomplish the work concurrently with each other.

The 'and/or' operator shown above makes it clear that to be in Group 3 (or another group using 'and/or'), its acceptable that only one of the mentioned SBs has been embodied on the aircraft. This is not as clear in the listing of some other 'Group' qualifiers as shown below:

"Group 5: MSN on which full stiffener removal was performed in accordance with SB 53-1402 (LH) and SB 53-1403 (RH) at original issue or Revision 01" **

The verbiage above indicates that to be considered part of Group 5, stiffener removal must have been accomplished on an aircraft's LHS AND RHS per Rev 00 or Rev 01 of both SBs, SB A320-53-1402 and REF (D). Accomplishing stiffener removal per these bulletins is only done for certain instances of no crack findings and is dependent on aircraft age and prior rework status. It is quite possible an aircraft 'affected part' is inspected, LHS and RHS, and is found to already be in a different configuration (i.e. rework already accomplished) between the two sides – in this scenario, it may not be possible to



embody the same corresponding rework bulletins due to differing starting configurations. However, given the current verbiage for Group 5, there is no flexibility to accomplish only one of the mentioned SBs and still be considered part of the group.

Delta is requesting review of the verbiage in Table 1 because as written, operators may be forced to select the wrong 'Group', Group 1 (to be used for all MSNs not in Group 2 through 8) for an aircraft that should be in Groups 5, 6, or 7 due to the overly restrictive nature of the verbiage used with their qualifying criteria statements. Ultimately this could lead to AMOC requirements or use of incorrect time of accomplishment options and potential AD bust or overrun.

List paragraphs that change; describe (nonobvious) changes

OPTION 1: Revise Table 1 as follows or similarly:

- Group 5*:

“MSN on which full stiffener removal was performed in accordance with SB 53-1402 (LH) and/or SB 53-1403 (RH) at original issue or Revision 01”

- Group 6*:

“MSN on which rework has been performed in accordance with the instructions of sketch A2 of Airbus repair instructions R531-13452 (LHS and/or RHS),

-OR-

MSN on which the first rework has been performed in accordance with the instructions of SB 53-1402 (LH) and/or SB 53-1403 (RH) at original issue or Revision 01”

- Group 7:

“MSN on which rework has been performed in accordance with the instructions of sketch B2 or C2 of Airbus repair instructions R531-13452 (LHS and/or RHS).”

OPTION 2: Use two tables to define groups instead of one. This separates all LHS and RHS potential Service Bulletin embodiments, which could help reduce confusion and misinterpretation.

*NOTE: The Service Bulletin references in these 'Group' qualifying statements are also discussed in Comment #1. Refer to Comment #1 for details on that requested change.

Comment #4

Commenter Request

Request for clarification on / revision of Table 2 – SDI Threshold(s) and Interval(s)'.

Request justification



Table 2 includes corresponding compliance times and intervals for each of the eight Groups outlined in Table 1. Table 2 has a similar issue to that described above in Comment #3 for Table 1. Compliance time(s) and interval(s) are based on prior accomplishments of one or two Service Bulletins, but there are no ‘and/or’ operators (only ‘and’) to make it clear that its possible only one of the listed Service Bulletins has been embodied.

List paragraphs that change; describe (nonobvious) changes

Revise Table 2 as follows or similarly:

- Group 2:
“SB 53-1404 (RH) and/or SB 53-1405 (LH) embodiment, as applicable”
- Group 3:
“SB 53-1406 (RH) and/or SB 53-1407 (LH) embodiment, as applicable”
- Group 4:
“SB 53-1335 (LH) and/or SB 53-1336 (RH) embodiment, as applicable”
- Group 5:
“SB 53-1402 (LH) and/or SB 53-1403 (RH) embodiment, as applicable”

Comment #5

Commenter Request

Request for review of and clarification on when Para (5) ‘Credit’ allowance can be utilized.

Request justification

Para (5) of REF (A) allows operators to take credit for the proposed rule’s initial actions (i.e., inspections required by Para (1)) if accomplished prior to the rule’s AD Effective Date using REF (C) R00 / R01 or REF (D) R00 / R01. The credit paragraph is necessary because the EASA PAD requires use of REF (C) R02 and REF (D) R02 for inspections and the R00 and R01 versions of the subject bulletins would have been used previously by operators to comply with the mandated inspections in REF (B).

Inspection REF (C) R00 / R01 and REF (D) R00 / R01 give operators the option to proactively embody certain modification bulletins defined in REF (A), depending on aircraft configuration and age:

- REF (C) R0 / R01 – allows for use of REF (F) and REF (H)
- REF (D) R0 / R01 – allows for use of REF (E) and REF (G)



Additionally, the 'Group' definitions in REF (A) Table 1 are dependent on current aircraft configuration, with some groups being based on prior embodiment of the modification bulletins mentioned above: REF (E), REF (F), REF (G), and REF (H). Similarly, Para (1) defines time of accomplishment thresholds and intervals for each resulting aircraft group, also with some initial 'start times' being based on time since modification SB embodiment.

Delta wants to ensure that our interpretation of how REF (A) Para (5) 'Credit' should be utilized in conjunction with the groups defined in Table 1 and Time of Accomplishment defined in Para (1) / Table 2 is correct. An example scenario is provided below:

An operator accomplished the LHS inspection in 2019 per REF (C) R00 to comply with the initial requirements of REF (B). At that time, the aircraft had 30,000 TFC and no cracks were found / no rework had been previously done in the area. Per the allowances in REF (C) R00, the operator decided to proactively embody REF (H).

Per REF (A), this aircraft LHS is in Group 3 and can utilize Para (5) 'Credit' for taking compliance with the initial inspection requirements in Para (1) / Table 2 of the proposed rule. Even though the initial Threshold for inspection for a Group 3 (LHS) aircraft is 31,400 FC since REF (H) embodiment, the applicable interval of 1,500 FC since inspection per REF (C) R00 can be used because the initial compliance credit was taken as allowed by Para (5).

REF (C) and REF (H) would have been accomplished during the same check visit, so for this scenario the same number of FC would be accrued using the repetitive interval or the initial threshold for Group 3. The repetitive interval is much more restrictive in FC than the initial threshold, which would drive an operator to accomplish the next due inspection potentially tens of thousands of flight cycles earlier than necessary.

List paragraphs that change; describe (nonobvious) changes

Provide clarification / confirmation of the following:

- Confirm that the interpretation of how Para (5) 'Credit' should be utilized in conjunction with the groups defined in Table 1 and Time of Accomplishment defined in Para (1) / Table 2 is correct (refer to example scenario in italics).
- If operators are typically driven to accomplish the modification SBs, REF (E), REF (F), REF (G) and REF (E), because of first completing inspection per REF (C) R00 / R01 and REF (D) R00 / R01,
-AND-
Para (5) 'Credit' allows operators to take compliance for initial pre-effective date actions completed per REF (C) R00 / R01 and REF (D) R00 / R01
-AND-
The initial inspection threshold is a much higher total FC allowance for an aircraft that was inspected and modified at the same time using bulletins from the PAD.
 - 1) It is acceptable to not utilize Para (5) allowances and instead use the applicable initial inspection threshold.
 - 2) Use of Para (5) will likely be limited to aircraft that were not reworked or repaired after initial inspection per REF (C) R00 / R01 and REF (D) R00 / R01

Comment #6

Commenter Request



Request for additional Terminating Action Paras to cover aircraft inspected per Para (1) and repaired per Para (2) 'Corrective Actions'.

Request justification

REF (A) Para (4) is a 'Credit' paragraph specifically for aircraft that were inspected using ALI 531133 (prior to the current REF (B)'s Effective Date) and then repaired using Airbus-approved instructions. Per this paragraph, aircraft meeting these conditions should continue to comply with the follow-on inspection requirements and compliance times of the Airbus-approved repair instructions for the remaining due inspections. This paragraph is supplemented by Para (6) 'Terminating Action', which states that compliance with Para (4) constitutes terminating action for the repetitive inspection requirements of Para (1). This ensures that only the applicable inspections relative to the specific repair-status of that aircraft are completed going forward.

DAL notes that the following scenarios are not in the EASA PAD but could also result in Airbus-approved repair instructions that should be utilized in lieu of the repetitive inspection requirements of Para (1):

- 1) An aircraft was inspected using REF (C) R00 / R01 and REF (D) R00 / R01 and then repaired using Airbus-approved instructions after the REF (B) effective date and before the impending superseding EASA AD's effective date.
- 2) An aircraft was inspected using REF (C) R02 and REF (D) R02 and then repaired using Airbus-approved instructions after the impending superseding EASA AD's effective date.

In the cases where Airbus-approved instructions are required to repair the subject area, it is possible that the approving documentation includes the follow-on inspection requirements for that should supersede the inspection covered by Para (1) using SB RE (C) R02 / REF (D) R02. This will be specified in the RDAF approving said repair and hence, should constitute terminating action for the repetitive inspection requirements of Para (1). As of right now, there are no provisions in there 'Terminating Action' piece of the proposed rule to allow for this. Without terminating action paragraphs to address the two repair scenarios above, operators may be forced to complete the AD-mandated inspection (which might be superseded and/or no longer possible post-repair) AND the RDAF-inspection – this drives unnecessary ground time, MTC man hours, and potential Engineering paperwork.

List paragraphs that change; describe (nonobvious) changes

Review scenarios 1) and 2) above and confirm that terminating action paragraphs are needed. These paragraphs should read as follows, or similarly:

- New 'Termination Action' Para for Scenario 1:
"Accomplishment of Airbus-approved corrective action(s) on an aeroplane that was inspected using Airbus SB A320-53-1402 original issue or Revision 01, or Airbus SB A320-53-1403 original issue or Revision 01, as applicable, prior to the effective date of this AD does not constitute terminating action for the repetitive SDI as required by paragraph (1) for that aeroplane, unless specified otherwise in the instructions provided by Airbus."
- New 'Termination Action' Para for Scenario 2:



“Accomplishment of Airbus-approved corrective action(s) on an aeroplane as required by Paragraph (2) of this AD does not constitute terminating action for the repetitive SDI as required by paragraph (1) for that aeroplane, unless specified otherwise in the instructions provided by Airbus.”

EASA response:

Comment #1 agreed. The type specification will be added to all SBs in the final AD for consistency.

Comment #2 agreed. The Group definition will be amended as suggested. See answer to Commenter #3 above.

Comment #3 noted. See answer to Commenter #3 above.

Comment #4 noted. See answer to Commenter #3 above.

Comment #5 agreed. In the final AD, Note 1 has been added after Table 2 to provide clarification on the threshold for the next due inspection.

Comment #6 partially agreed. A new terminating action paragraph (8) has been added to the final AD in line with Scenario 2.

