


EASA	COMMENT RESPONSE DOCUMENT
	<p>EASA PAD No. 13-051 [Published on 03 April 2013 and officially closed for comments on 01 May 2013] and EASA PAD No. 13-051R1 [Published on 26 August 2013 and officially closed for comments on 09 September 2013]</p>

Commenter 1: China Eastern Airlines Co. Ltd. – Yang ZengWen – 11.04.2013

Comment # 1

Our REF: CES-2013-A300-55-0411-YZW-01

In PAD 13-051 (5), it is required that all rudder known to have been repaired cannot be installed on an aircraft unless the rudder is inspected. However, in Airbus SB A300-55-6050 effectivity, it is said that "This Service Bulletin is applicable to all rudders with the Serial Number (SN) from HF-1005 to HF-1323, HF-1325, HF-1327, HF-1329, HF-1331, HF-1332, HF-1340, TS-1324, TS-1326, TS-1328, TS-1330, TS-1333 to TS-1339, TS-1341 to TS-1420 or TS-2001 to TS-2197."

We suggest that EASA AD should change the requirement(5) from "all rudder" into the SB A300-55-6050 effectivity.

EASA response:

Comment agreed.

Paragraph (5) has become paragraph (6) in the final AD.

This paragraph has been reworded as follows: "From the effective date of this AD, in case of rudder replacement, it is allowed to install a rudder on an aeroplane, provided that, prior to installation, it is determined that the rudder is compliant with the requirements of paragraphs (2), (3), (4) and (5) of this AD".

Commenter 2: UPS Airlines – Mark R. Hilborn – 30.04.2013

Comment # 2

EASA has released a proposed airworthiness directive to mandate inspection of the A300-600 and A310 rudders for existence of existing repairs. If required, based on maintenance records review, accomplishment of a thermography inspection is required within twenty-four (24) months of the ruling effective date. Based on the results of the thermography inspection, additional actions may be required including repeat inspections, additional inspections and / or additional repair accomplishment. The new ruling is in response to the in-service finding of an A310 rudder skin disbond that had been repaired in-service in accordance with the Structural Repair Manual (SRM). A review of the references identified three items for which United Parcel Services Company (UPS) seeks clarification. **The first item** deals with the

understanding the difference is the rudder skin repair accomplishment time period. The Airbus service bulletin specifies inspection for rudder repairs accomplished in accordance with SRM issues prior to the December 2009 revision. Repairs accomplished under Repair Authorization Sheets (RAS's) authority are covered in service bulletin figures A-GBCAA, sheets 2 and 4 and like the SRM repairs, are all dated prior to December 2009. In the EASA proposed ruling, there is no time period or revision level reference to when a repair was accomplished either by the SRM reference or Airbus RAS. The open-ended nature of the proposed rule raises questions for repairs that may be installed after the ruling effective date. **Based on this difference, UPS would like clarification if repairs accomplished in accordance with an SRM or Airbus RAS approval after December 2009 require inspection in accordance with Airbus SB A300-55-6050.**

The second item deals with the inspection area for identified repairs. In Airbus service bulletin A300-55-6050, Figure A-GFAAA Flow Chart (sheet 1); the thermography inspection is to be accomplished in the identified repair location(s) to verify the rework boundaries and general repair condition. The proposed rule calls for the inspection of the complete rudder side shells to identify repair locations. As the repairs in question, identified in service bulletin A300-55-6050, Figure AGBBAA, sheets 2 and 3, involve multiple external ply reinforcement of the repair area (non-flush repair), UPS believes that the identification of suspected repair areas will be easy to accomplish visually. Identified / suspected areas can be further inspected instead of accomplishing a 100% area inspection with the thermography methodology. Therefore, UPS requests further clarification as to the reasoning behind the complete side shell inspection requirement in the proposed rule Required Actions paragraph (3).

The [third and] final item deals with the A300 / A340 aircraft family. Per Airbus SB A300-55-6049, revision IR, dated 30 December 2009, under certain configuration circumstances, an A330 / A340 long range (LR) rudder may be installed on an A300-600 aircraft (wide body). UPS would like to know if the A330 / A340 rudder assemblies have a similar mandatory inspection requirement for disbonding or if these configuration rudders (P/N A5547182015) are exempt from the inspections identified in this proposed ruling.

EASA response:

Comments noted.

For the first item, paragraph (2) specifies the repairs that require inspection as follows:

- **The SB A310-55-2051 Figure A-GBBAA (Sheet 01 and 02) and SB A300-55-6050 figure A-GBBAA (Sheet 01, 02 or 03) specifies the SRM repairs that requires inspection . The subject SRM repairs are inactive since SRM revision Dec 2009.**
- **The SB A310-55-2051 figure A-GBCAA (Sheet 02) and SB A300-55-6050 figure A-GBCAA (Sheet 02 or sheet 04) specifies repairs covered by RAS that requires inspection. The subject RAS are all dated prior December 2009.**

Based on that, it can be confirmed that repairs accomplished in accordance with an active repair procedure of SRM revision December 2009 or later do not require inspection. Repairs covered by RAS approval after December 2009 do not require inspection.

For the second item, the question related to the rudder repair detection/check is assessed as follows:

There are 3 (three) different cases:

- 1. The previous in-service repairs performed on a rudder shell is fully documented (damage location, size, selected SRM figure). In this case the pulse thermography inspection is required to confirm the repair location and size. For a rudder with full records including documented repairs, the pulse thermography application is limited around the repair.**
- 2. No records or incomplete records: The thermography application on the full rudder is necessary to detect potential in-service repairs. All in-service repairs implemented on the rudder side shells outer skin are not all visually detectable.**
- 3. Full records, no in-service repairs: No inspection required in the scope of SB A300-55-6050.**

For the third item, EASA can confirm that similar mandatory action is worked on for the LR aircraft as well. For the particular rudder p/n mentioned the following apply:

LR rudder P/N F5547000000x can replace WB rudders P/N A554717100xx or A55471730000. The installation and necessary hardware are described in SB A300-55-6049 and SB A310-55-2050. After SB embodiment, the LR rudder has to be renamed as a WB rudder with P/N A5547182015x and has to follow the scheduled maintenance requirements as a WB rudder which has MOD 8827 embodied.

For rudders A5547182015x, the original LR rudder P/N and S/N should be retrieved. The instructions contained in the SB A330-55-3043 and SB A30-55-4039 are applicable provided that the rudder is in the SB effectivity.

The instructions contained in the SB A300-55-6050 and SB A310-55-2051 are not applicable. According to these SB, repairs that have been done with SRM revision Dec 2009 or later and repairs covered by RDAS after Dec 2009 are not affected. Since the SB A300-55-6049 and SB A310-55-2050 were issued in Dec 30/09, the in-service repairs performed in rudders A5547182015x are not affected by the SB A300-55-6050 and SB A310-55-2051.

No changes have been made to the Final AD in response to these comments.

Commenter 3: Pakistan International Airlines Corporation - Engr. Bakhat Azam Rush – 29.08.2013

Comment # 3

PAD 13-051R1 mandates initial issue of Airbus SB A310-55-2051. On page # 85; note:17 of SB 55-2015 Airbus recommends removal of rudder from aircraft in case paint removal area is more than 2 sq-m. We suggest that this action should not be mandated by upcoming EASA AD and it is suggested that it should be left on operator discretion based on operator facilities.

The reason is that as paint shop painters normally do not care much about the thickness of paint during its application on rudder, therefore there are chances that in most of cases paint removal area may go beyond 2 sq-m. In that case removal of rudder will arise the issues of more aircraft grounding time, special tooling requirements for removal of rudder, rudder handling issue which may damage rudder and it will consequently be an additional burden on operators. Furthermore, there seems no regulatory violation of removing paint with rudder fitted on aircraft.

EASA response:

Comment not agreed.

Airbus recommendation of rudder removal is a precautionary measure in order to minimise the risk of rudder damage during paint removal for areas larger than 2 sq-m.

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

Commenter 4: Lufthansa Technik AG - John Donegan – 06.09.2013

Comment # 4

please find herewith comments to the aforementioned PAD 13-051 R1 on behalf of operator GAF (German Air Force).

Required Action(s) and Compliance Times

Paragraph 4

- Paragraph 4 states that after inspection in accordance with paragraph (2) or (3) “accomplish supplemental inspections and / or corrective actions in accordance

with...the SB...". We request to change the wording to add "or Airbus specific instructions". We have already performed this inspection and reported repair details to Airbus whereupon further actions were proposed by Airbus which were not covered by or deviated from the SB. It is essential that these instructions are also considered and deemed compliant with the airworthiness directive.

Paragraph 5

- We are requesting to simplify the phraseology which currently uses a double-negative "Aeroplanes with a rudder...which is **not** in the range HF-....are **not** affected" to the positive phraseology used in the SB such as "Aeroplanes with a rudder...which is in the range...are affected". For human factors reasons, a "positive" wording is less susceptible to misunderstanding. In the interest of safety and minimizing errors, we request EASA to evaluate the current policy used of a general inclusion of all aircraft models for the AD and later specifying the exceptions and choosing the wording especially carefully. It must be mistake-proof! If this change will not be implemented, we request at least using alternative words such as "rudder...*outside* the range...are *excluded* from...". A not not situation is very undesirable.
- The rudders outside of the range given in Paragraph 5 cannot be excluded from the requirements of this AD, as proposed in the PAD. The EASA has made the condition that it must be ensured that even on these rudders, no repairs have been accomplished. This condition can only be met by doing the actions of either (1) or (3). There is no other way. Therefore, paragraph 5 has no added value, the AD steps (1) and/or (3) have to be performed as a minimum on ALL rudders, regardless of S/N.

Paragraph 6

- The current version of paragraph 6 gives the impression that all rudder S/N which have been repaired iaw any SRM revision are affected by this paragraph. This is probably not the intention of the AD.

Please limit the wording of paragraph 6 to the affected rudder S/N only and repairs before SRM revision "February" 2009. See below regarding "February".

Paragraph 7

- We assume the "SRM February 2009 revision" refers not to the SRM revision of that date but to the procedure of that date, which may still be included in later SRM revisions. It is much easier for operators to adhere to the requirements if a specific SRM revision is noted. Please clarify.
- Please note the current SRM (June 2013) includes repairs in 55-41-12 PB 200 which have procedural pages issued from Dec 1999, Jun 2000, Jun 2003, Jun 2005, Dec 2007, Dec 2008. It could be interpreted from the AD that if EASA is referring to procedures issued prior to February 2009 being invalid, that these also become invalid on the effective date of the AD.
- The SRMs of the affected aircraft models have long since been revised to remove or de-active repairs. They do not contain ANY procedures from February 2009 or older, so in the current state there is no possibility of a new repair being accomplished in accordance with a procedure older than Feb. 2009. It is our view, therefore, that the Paragraph 7 requirement is obsolete, as there is no chance of it happening.
- If it is the EASA view that the paragraph is still relevant as a repair may still be performed using a procedure older than Feb 2009, then that implies that the MRO/operator is using outdated SRMs which have been superseded by at least 12 months (and therefore already breaking our current understanding of the Part-M obligation to use up-to-date repair information, within at least 12 months from issue from the manufacturer). Please clarify the general requirements from EASA as to what is the oldest permissible SRM that can be used at any time by an operator! Is there any limit?
- The A300-600 and A310 SRMs have been issued in June and December each year for the past decade. If EASA keeps a requirement about using old SRMs, please clarify if December 2009 SRM is intended (to coincide with the repair validity given in the SBs). There is no SRM from February 2009.
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EASA response:

Comments agreed.

Para 4: EASA have taken LHT comment into consideration and reworded the final AD as follows:

“After the inspection as required by paragraph (2) or (3) of this AD, as applicable, depending on findings, within the compliance times and intervals defined in Tables 3, 4A, 4B, 4C, 4D and 5 of Airbus SBA310-55-2051 or SB A300-55-6050, as applicable, accomplish supplemental inspections and, depending on findings, corrective actions in accordance with the instructions of the SB A310-55-2051, SB A300-55-6050 or Airbus approved specific instructions, as applicable.”

Para. 5: In order to align with AD 2013-0302 (A320 family) the wording of the final AD have been amended as follows:

“Aeroplanes fitted with a rudder having a s/n which is not in the range HF-1005 to HF-1323 inclusive, HF-1325, HF-1327, HF-1329, HF-1331, HF-1332, HF-1340, TS-1324, TS-1326, TS-1328, TS-1330, TS-1333 to TS-1339 inclusive, TS-1341 to TS-1420 inclusive or TS-2001 to TS-2197 inclusive, are not affected by the requirements of paragraphs (2), (3) and (4) of this AD, provided that it is determined that no repairs, in accordance with SRM procedures as identified in paragraph (2) of this AD, have been accomplished on the composite side shell panel of that rudder since first installation on an aeroplane.”

Para 6: This paragraph has been reworded in the final AD as follows:

“From the effective date of this AD, in case of rudder replacement, it is allowed to install a rudder on an aeroplane, provided that, prior to installation, it is determined that the rudder is compliant with the requirements of paragraphs (2), (3), (4) and (5) of this AD”

Para 7: This paragraph has been reworded in the final AD as follows:

“From the effective date of this AD, do not accomplish a composite side shell panel repair on any rudder using an SRM procedure as identified in figure A-GBBAA (Sheet 01 and 02) or figure A-GBCAA (Sheet 02) of Airbus Service Bulletin (SB) A310-55-2051 or figure A-GBBAA (Sheet 01, 02 or 03) or figure A-GBCAA (Sheet 02 or sheet 04) of SB A300-55-6050, as applicable.”