

EASA	COMMENT RESPONSE DOCUMENT
	EASA PAD No. 12-160 [Published on 14 December 2012 and officially closed for comments on 11 January 2013]

Commenter 1: European Air Transport Leipzig GmbH, Deutsche Post DHL - The Mail & Logistics Group – Jan Wouterse – Mon 17/12/2012

Comment # 1

European Air Transport (BCS) is currently converting 18 A300-600 aircraft to freighters at EFW Dresden. Out of the 18 aircraft, 8 aircraft are equipped with P/N A55471500 rudders.

4 of these rudders will be removed during the conversion process and will therefore be inspected after reinstallation on the aircraft. The remaining 4 rudders have not been removed off the aircraft since the initial inspection per SB A300-55-6043 Rev. 01 and are therefore not affected by Paragraph (1) of PAD 12-160.

We have come to this conclusion by also taking into account Paragraph (5) of PAD 12-160 and the precise wording of Airbus AOT A55W002-12:

“The inspection has to be performed only if the last inspection as per ref.1 or 2 [NOTE: Airbus A300/A310 SBs] was done off aircraft or if the rudder has been removed since then for any reason.

We believe that the wording of PAD 12-160 is not precise with respect to the fact that an inspection of the rudder Z-profile as per AOT A55W002-12 within 3 months of the authority requirement will only be required if the initial inspection per SB A300-55-6043 rev. 01 has been performed off-wing or if the rudder has been removed since.

We would kindly ask EASA to consider this comment and choose a more precise wording similar to the AOT for the final AD release.

EASA response:

EASA disagrees.

Paragraph (5) of the AD clearly states that a rudder which has been previously inspected and not removed since this inspection is compliant with paragraph (1) of the AD. Paragraph (6) states that an affected rudder P/N can be installed, provided that, before next flight after installation, the rudder passes the inspection, or is corrected, as applicable.

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

Commenter 2: HI FLY – Maintenance & Engineering Department – Rui Cavaco – 17 December 2012

Comment # 2

[the commenter's questions 1 and 2 are not included, as they did not pertain to PAD 12-160]

In [view of EASA] AD 2007-0266, we could eventually find a rudder flying without having being timely inspected in accordance with SB A310-55-2045.

Q3: could this eventual re-inspection of rudders in accordance with SB A310-55-2044 be extended to SB A310-55-2045 as well?

Quote from paragraph (2): «(...)differentiate the disbonding from other possible damage by accomplishing an Elasticity of Laminate Checker inspection to detect external and internal disbanding [Method A], or by accomplishing a Woodpecker or Tap test inspection to detect external disbanding [Method B]».

Q4: On the AIRBUS AOT A55W002-12, AIRBUS specifies that both Methods A and B must be actioned in case of findings. Kindly confirm if subject paragraph will be changed and consolidated with AOT wording.

Q5: since the EASA PAD is not redirecting to the AIRBUS AOT A55W002-12, what is EASA advisory if findings are detected on rudder booster area?

EASA response:

The compliance time specified in this AD is 500 flight cycles or 6 months, whichever occurs first after 22 October 2007. From EASA point of view, "a rudder flying without having being timely inspected in accordance with SB A310-55-2045" is non-compliant with the previous AD's requirements and should therefore be inspected immediately as required by this AD. No changes have been made to the Final AD in response to this comment.

Q3: EASA does not agree. Inspection as per SB A310-55-2045 is not relevant as it does not cover the 'Z profile' area inspection.

Q4: EASA agrees. The Final AD has been corrected accordingly.

Q5: EASA agrees. The Final AD has been corrected accordingly.

Commenter 3: HI FLY – Maintenance & Engineering Department – Maria Afrodita Sarbu – 17 December 2012 13:36

Comment # 3

Could you please confirm if the Ultrasonic Inspection requested by Paragraph (1.2) of PAD 12-160 is also required for rudders that were previously inspected, on-wing, in accordance with the instructions of Airbus SB A310-55-2044 Revision 1 and haven't been removed / re-installed thereafter?

The current applicability could be understood that all rudders **starting (1)** with P/N A55471500 need to be inspected as per Paragraph (1.2), irrespective of removal/installation events for the purposes of SB A310-55-2044 Revision 1.

(1) P/N A55471500, throughout the document, should not be interpreted as a complete Part Number.

In AOT A55W002-12 Airbus highlights that the Ultrasonic Inspection should be performed "only if the last inspection as per [SB A310-55-2044 Revision 1] (...) was done off aircraft (...)"

EASA response:

EASA agrees. EASA confirms that, for rudders that were previously inspected, on-wing, in accordance with the instructions of Airbus SB A310-55-2044 Revision 1 and have not been removed / re-installed after that inspection, there is no need to re-inspect that rudder. Next inspection due is the repetitive interval inspection specified in SB A310-55-2044 Revision 1.

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

Commenter 4: Air Transat – Ianik Guy-Michaud – 19/12/2012**Comment # 4**

TSC ref 55-121219-1116

PAD 12-160 para (2) requires either ELCH or tap test in case of findings during ultrasonic inspection. This contradicts mandatory SB 55-2044 R1 which requires thermography or x-ray in case of findings. This will create confusion among operators and maintenance organization.

I think that AD should require thermography or x-ray in case of findings, to be in line with mandatory SB instructions.

EASA response:**EASA disagrees.**

AOT A55W002-12 objective is to detect a inner skin or outer skin to core separation or core damage. From NDI point of view UT, Tap Test/Woodpecker and ELCH are the appropriate tools to detect this damage type. The SB 55-2044 R1 referenced in the AOT is only used to illustrate the inspection area. The SB 55-2044 R1 thermography & X-Ray methods are used to detect fluid ingress and not to detect debonding.

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

Commenter 5: Lufthansa Technik AG – Frank Eberhardt – 19 December 2012 09:59**Comment # 5**

Please find below LHT comments concerning PAD 12-160.

- 1) Please [note there is] a typing error: The AMM chapter mentioned in the PAD 12 -160 in the column reason should be read 27-21-21 instead of 27-21-41.
- 2) To point 6) of PAD 12-160:

According to the AOT this inspection is required until issuance of the revised AMM task. Quote: *"The inspection must be repeated before next flight after any further re-installation of the rudder onto an aircraft until issuance of revised AMM task ref.7. This inspection will prevent undetected damage introduced during rudder ground handling."* End of quote.

As this damage obviously occurred during handling process according to the AMM 27-21-21, LHT deemed it necessary that the OEM has to publish a Temporary Revision of the applicable AMM chapter containing the UT inspection instead of waiting to the next revision service in the second quarter of 2013 as mentioned in the AOT. A temporary revision ensures that the information about the required inspection will be available for all maintenance personnel in case of any rudder removal/re-installation.

Rudder removal/installation can have various root causes. Any removal/installation procedure will be done according the applicable AMM by maintenance personnel. In LHTs point of view, a temporary revision is the only way to cover point 6 in the PAD (ultrasonic inspection of the rudder after re-installation) to inform maintenance personnel about the necessary inspection in case of a rudder re-installation.

EASA response:

1) EASA agrees. The error has been corrected in the Final AD.

2) EASA disagrees. See answer to Comment #1 above. No changes have been made to the Final AD in response to this comment.

The commenter's position regarding temporary revision of AMM is agreed – an AMM TR will be published by Airbus only on operator's request.