



## COMMENT RESPONSE DOCUMENT

EASA PAD No. 16-067

[Published on 11 May 2016 and officially closed for comments on 22 June 2016]

**Commenter 1: Avianca – Danilo Reis – 13/05/2016**

### Comment # 1

Regarding PAD 16-067, we request applicability clarification for SBs below:

- \* SB A330-53-3238, isn't it applicable for Group 32E and A330-200F?
- \* SB A330-53-3239, isn't it applicable for A330-200F?
- \* SB A330-53-3244, isn't it applicable for A330-200F?

### EASA response:

**Comment understood. Airbus SB A330-53-3238: This SB is not applicable to Group 32E and A330-200F at the time of issuance of this revised PAD. However, it is possible that a SB or revision of this SB may be issued later to cover these configurations if this is later determined necessary. A new AD would be issued if this happens.**

**Airbus SB A330-53-3239 & SB A330-53-3244 are applicable to A330-200F aeroplanes. : As Group 32F is not defined, Table 3 has been amended to mention A330-200F aeroplanes instead of Group 32F. The revised PAD has been amended for clarity reasons and in response to this comment.**

**Commenter 2: Brussels Airlines – Youssef Aamara – 20/05/2016**

### Comment # 2

During the review of PAD 16-067, BEL has found the following discrepancies:

- A. Table.3 action item.3 (SB A330-53-3223): Group.33A is missing in the applicability column.
- B. Table.3 action item.18 (SB A330-53-3263): Group.33A is missing in the applicability column.



**EASA response:**

- A. Table.3 action item.3 (SB A330-53-3223):** *The calculated SMP for Group 33A aeroplanes is 49 600 FC, which is above ESG (to be certified) for these aeroplanes. Since the current (DSG or ISG) limits cannot (legally) be exceeded, this revised PAD does not require action on those aeroplanes.*
- B. Table.3 action item.18 (SB A330-53-3263):** *The calculated SMP for Group 33A aeroplanes is above 50 000 FC, which is above ESG (to be certified) for these aeroplanes. See EASA answer to Point A. above.*
- No changes have been made to the revised PAD in response to these comments.**

**Commenter 3: Lufthansa Technik AG – John Donegan – 23/05/2016****Comment # 3**

- A. This comment will represent the fifth time a request is being made to issue individual ADs to cover individual SB subjects (as has historically been the philosophy for AD issuance). The first request was from operators who requested removal of the WFD SBs from Section 3 of the ALS Part 2 for A340 and to issue ADs – this was partially successful, in that the SBs were removed with ALS Variation 1.3 in August 2015. However, when this was brought to attention of airworthiness that those SBs were then no longer mandated in October 2015 (by LHT query), those SBs were subsequently all bundled into AD 2016-0035 along with a few other additional ones. The second request came from the operator body Structures Task Group (Toulouse, October 2014). The third request came from LHT comments on PAD 15-154 to EASA, December 2015, available in the CRD document on the EASA website. A fourth request was repeated from the Structures Task Group (Lisbon, April 2016). The fifth request follows below. We would appreciate some initiative for dialogue from either EASA or Airbus Airworthiness with the operator body on this issue.
- B. LHT respectfully requests that each SB subject is dealt with in a separate AD. The following reasons are given:

Apart from the subjects already commented on by LHT in PAD 15-054 regarding the complex nature of SB implementation from the operator side and having an AD with potentially 44 or more compliance limits on the 18 SBs in a mixed A330 fleet configuration – and the higher chances or errors being made, LHT is concerned about the number of times this AD is likely to need revision or be superseded in the future, leading to a huge administrative burden every time, for the whole fleet, on all 18 SBs.

EASA has previously informed LHT that if an SB is revised, in which the compliance times were amended, a new AD must be issued to permit use of higher compliance values or to mandate implementation of reduced values, even though the SB is approved under EASA DOA. LHT has several indications that very many of the SB limits listed in 16-067 will be amended in the future:

Note 3 of PAD 16-067 states that for aircraft not modified within the window of embodiment “it is anticipated that accomplishment of additional maintenance tasks (modification/inspection), to be developed by Airbus, will be required”. These additional actions are directly related to the SBs



listed in 16-067 and once published, will need to be incorporated, even if they are not due until after DSG. SBs A330-53-3222, 53-3224, 53-3225, 53-3237, 53-3238.

Airbus Message Ref. G53M16000081 (05-JAN-2016) states that Airbus is currently investigating the possibility to improve the SMP for several A330/A340 WFD SBs.

At this time LHT is aware of Airbus efforts to significantly increase the SMP for (at least) SB A330-53-3226, through solution A330-53-3273, currently under investigation (not yet available) and presented to the STG in Lisbon, 2016. Those new SMP values for 53-3226 will need to be incorporated, when published.

Note 5 and Note 6 of PAD 16-067 indicate that relevant compliance limits have not been published in the PAD which exceed DSG/ISG but are applicable before ESG. However, these limits are likely to be published and incorporated into the ADs for those SBs, once the ESG certification is approved. This will again affect very many of the listed SBs: A330-53-3144, 53-3222, 53-3224, 53-3226, 53-3236, 53-3238, 53-3251. As noted in PAD 16-068 Note 5: “these limits may be introduced later in a new AD...depending on the outcome of the corresponding ESG”.

A330-53-3236 is currently only planned to be mandated for Group 33A. However, the compliance times for Group 32A, 32E, 33B, 33C, 33D and 33E will also need to be incorporated at a later stage, once ESG is certified, for those values due before the envisaged new MPPT. The ESG certification will still not be done for Group 33E (pre MSN 555) until an even later stage, so this will also lead to staggered amendments.

With every new publication of a compliance limit, this AD will need to be re-visited and forcing operators to do a complete re-evaluation of all affected SBs (18!) every time. LHT requests EASA and Airbus to research the original reasons why the A340-300 WFD SBs were removed from the ALS Part 2 (philosophy change) and reflect on the same arguments regarding bundling of SBs with different technical subjects. This was due to the problem with the AD on the ALS Part 2 which would require amendment also, every time an SB compliance was altered and also the SBs would need to be re-evaluated by the operators, each time a new AD on the ALS Part 2 was issued.

C. LHT explicitly requests that A330-53-3226 is not mandated at this time. The following reasons are given:

The compliance threshold given is extremely low for Group 33C, 33D and 33E (12600 FC/84800 FH). Aircraft will be running in a grace period of just 12 months; material lead time is 220 days for the fleet. While some kits may become available earlier, this is not feasible for the world fleet.

The modification package is quite a huge burden requiring de-fuelling, zero-stress jacking and significant cabin removals and is not suitable for a line maintenance event; this will cause significant operational and logistical difficulties for aircraft above or close to the compliance threshold. While not even suitable for a C-Check, the current grace period would not even get aircraft to the next C-Check, even if material kits were available. The SBs thresholds were only first published in March 2016 and this is giving no fair opportunity for operators to plan implementation without significant disruption.

Airbus has presented a planned alternative technical solution (A330-53-3273) which will enable a postponement of 53-3226 and significantly reduce the burden on operators. While the alternative SB may not be available until 2017, we request that you do not force operators with aircraft close to or over the compliance threshold to implement 53-3226, while they are awaiting the 53-3273, which should be an acceptable solution to address



any airworthiness concerns. The consequence otherwise is a huge financial and operational costs to Group 33C, 33D and 33D operators (expensive material kits, unscheduled downtime and labour). If EASA identifies airworthiness concerns before the availability of A330-53-3273, these should be addressed by external inspections.

- D. Please confirm that where a Note 5 is identified under the SMP column in Table 3, no FH value needs to be tracked, even if a FH value is given in the SR SMP column. If confirmed, LHT would request EASA to consider clarifying Note 5, similar to that done in Note 6, to amend “These limits in FH...are currently not applicable” to “no limits in FH...are currently applicable”.
- E. Please confirm that aircraft previously modified by original issue of SB A330-53-3222, 53-3237, 53-3238 if the compliance limit stated in Table 3 is effective for the additional work portion and confirm if the grace period of 12 and 15 months, respectively, is also applicable for the additional work. For example, please note that SB 53-3237 R01 states that the additional work should be performed within 33000 FC from the time of embodiment of SB original issue. For 53-3222 it states that the additional work should be accomplished within 4400FC/10000 FH from embodiment of original issue. This is a significant point of clarification.
- F. Please permit SB A330-53-3144 original issue (dated 23 November 2005) as an acceptable means of compliance to requirement #1. In accordance with that SB at Rev. 4, no additional work is required for aircraft modified by any previous revision. If you do not permit the original issue, it is preferable to mandate the SB Revision which is current at the time of AD publication (i.e. Rev. 4) while permitting credit for previous actions, rather than mandating a superseded revision (Rev. 1).
- G. The mandate of Action 7, SB A330-53-3236, is restricted to Group 33A. However the “Applicable SB” document has a much wider applicability but with limits higher than the current DSG/ISG. LHT would like to note that this is just likely to cause a headache for AD compliance, when the MSNs of other groups are shown as applicable in the SB but not affected by the AD. Regarding this philosophy and in relation to Note 5 and Note 6, it was LHT’s understanding that WFD was not related to the ESG exercise, but rather the LOV. The SB philosophy appears to be to publish all ICAs to LOV, while the AD and ALS Part 2 philosophy appears to be to restrict mandates to the approved MPPT values only. While a reduction in the number of tasks to track is greatly appreciated, LHT requests a harmonization of the processes for publication, when does a task become an “ICA” for publication and if this is related to the MPPT.

**EASA response:**

**A. Comment understood. It should be clear that it is EASA policy to (as much as possible) address a single unsafe condition (in this case, WFD) by a single AD action. However, EASA does not dictate Airbus SB publication policy, which is by ATA code, not by general safety subject. Nor can EASA (or Airbus) ensure that all those documents are published or revised simultaneously. We appreciate the planning and scheduling difficulties this may have for operators and we confirm that a constructive dialogue with operators may lead to improvements. No doubt, some future Airbus Operator Conference will have this subject on the Agenda. Until such time, EASA does not intend to change its AD policy in this regard. In addition, EASA are constantly in contact with operators. We remind you that regular AD Workshops have been organised with the industry and**



*the next AD Workshop is planned for later this year. We warmly invite you to attend in order to continue this constructive dialogue with EASA. This issue could be addressed during the event. No changes have been made to the revised PAD in response to this comment.*

- B. Comment not agreed. See answer to point A. above. As explained for a previous case of multiple SBs in one AD, Action numbers are inserted for each required SB/mod in Table 3, to facilitate identifying separate SB/mod actions and recording compliance with each modification required by this AD. No changes have been made to the revised PAD in response to this comment.*
- C. Comment understood. It is confirmed that an alternative SB is under development, which should be an alternative method for compliance with Action 6 of the revised PAD. However, the compliance times should be unchanged and it was decided to issue this revised PAD, not waiting for issuance of alternative SB. When this AD is published, AMOC can be envisaged and this SB should also be included by reference if this AD is later revised, or if a new AD is issued, as necessary.*
- D. Comment agreed. Note 4 of the revised PAD (was Note 5 in original PAD 16-067) has been amended accordingly to make this clear. Note 6 of original PAD 16-067 has been deleted.*
- E. Comment agreed. Note 4 has been removed from the revised PAD. Instead, two paragraphs have been added to the RACT section.*
- F. Comment not agreed. It is confirmed that the SB contains an unfortunate error, therefore additional work (2 additional rows of fasteners are to be cold-worked) must be accomplished for operators which used Airbus SB A330-53-3144 at original issue. This work is mentioned in all SB revisions published from Revision 01, but no longer identified as 'additional work' from Revision 02 onwards. No changes have been made to the revised PAD in response to this comment.*
- G. Comment understood. EASA appreciates the difficulty of operators when planning actions required by this revised PAD. However, it should also be understood that EASA cannot require AD action when it is not yet known (as not yet certified) what are the conditions for flying beyond ISG. See also EASA answers to Comment #2, points A. and B. When "ESG" is certified, actions and related compliance times would have to be re-assessed for any aeroplanes operated to those new limits. No changes have been made to the revised PAD in response to this comment.*

**Commenter 4: Air Canada – Robert Giolti – 26/05/2016**

#### **Comment # 4**

EASA PAD is proposing to embody several service bulletins before exceeding the applicable Structural Modification Point (SMP). Air Canada's fleet is close to the SMP (LR) and have natural downtime opportunities in OCT 2016 to embody the SB A330-53-3226.

SB A330-53-3226 is quite a large SB involving zero-stress jacking, high volume of fasteners, large reinforcement doublers and cold working of holes. Due to the jacking configuration, maintenance cannot be performed in parallel during the shoring period of SB A330-53-3226.



Recently, Airbus has advised us SB A330-53-3273 (estimated date of release – end of July 2016) is an optimized solution equivalent to SB A330-53-3226. The scale of modification is much smaller and no zero-stress jacking is required. This is the preferred solution; however, the current PAD does not provide alleviation to embody SB A330-53-3273 in lieu of SB A330-53-3226.

- A. Can EASA revise PAD with respect to embody SB A330-53-3273 in lieu of SB A330-53-3226?
- B. If not, can EASA provide a statement to support an AMOC to perform SB A330-53-3273 in lieu of SB A330-53-3226? ACA will provide this statement of support to our local authorities for an AMOC. This is necessary not to miss the window of maintenance opportunity in OCT 2016.

***EASA response:***

***A. See answer to Comment #3, Point C.***

***B. See answer to Comment #3, Point C.***

***Commenter 5: American Airlines – Jonathan Sink – 31/05/2016***

***Comment # 5***

We, at American Airlines (AAL), felt compelled to supply comments on the subject PAD, given that our authority (FAA) will most assuredly supply a similar ruling. We hope these comments, along with the rest of the European operators' comments, will be compiled and shared with the FAA, as AAL believe all operators share similar views on the subject PAD.

AAL have reviewed PAD 16-067 for the A330s, issued on 11 May 2016, and supply the following comments:

- A. The major concern for AAL is the issuance of one “master” AD to control the actions and thresholds of 18 SBs. This method is not recommended, and the reasons to how it would impact us are provided below. Instead of one “master” AD, AAL would like to suggest one AD per SB. We understand the burden this would place on the authorities up front; however, AAL feels one AD per SB is the better solution. This opinion has also been expressed by operators within the A330 Structures Task Group (STG) on multiple occasions (TLS 2014, MAD 2015, LIS 2016) and supplied within the caucus meeting minutes.
  - 1. One AD per SB would alleviate multiple revisions to a single “master” AD should issues arise on a particular SB. From AAL’s position, if the “master” AD is revised/superseded, we would be required to revise each internal document (Engineering Orders (EO)) that affects that one AD. Therefore, AAL would be required to revise 18 EOs verses just the one specific EO that matches the SB that caused the AD revision. This becomes a heavy burden on the operator, not to mention on the local authority (FAA) tasked to review our documents for compliance. This revision of multiple paperwork, due to a “master” AD, would ultimately create a “spider web” of confusion.



2. If one “master” AD is issued for multiple SBs this AD could be subject to an excessive amount of AMOCs as all SBs are being governed by one AD action. It is much cleaner and easier to comply with ADs that mandate one particular SB not multiple ADs and thus AMOCs are handled one by one for each SB/AD combination. Each time an AMOC is released on a specific situation that affects only one SB, AAL would be obligated to revise each of the 18 internal documents (EOs) governed by the one “master” AD and supply them with the newly acquired AMOC. Again, this will place a burden on our engineering resources.
  3. Issuance of one “master” AD will be of great difficulty within our IT system. AAL’s maintenance tracking system (“SCEPTRE”), permits the creation of one tracking method for one AD. It will not sufficiently be able to track multiple SB thresholds under one AD, therefore a work around will be have to be created. This work around is uncharted territory, and it is not clear if it can be done. Again, the common convention that works in our IT system is one AD for one SB.
  4. In general, AAL must report our AD status on an AD report to the FAA. ADs for all tails must show the AD compliance date or forecasted due date on this report. In our specific case, the thresholds on several of the SBs are so far out that AAL may never reach them and our AD report would never show complied with even though we are taking actions on the lower threshold SBs. This basically creates an AD Report that will never show accomplished on a specific SB for the one “master” AD.
- B. AAL notes SB A330-53-3226 was recently revised with lower thresholds that now impact our fleet considerably. The revision to the SB was a result of further evaluation from Airbus on their WFD analysis prior to reaching DSG. AAL is concerned a similar condition could be made on the other 18 SBs within the PAD. This could result in revision/superseding of the one “master” AD, and create the circumstance feared within Item 1 (above) if one “master” AD is issued.
- Given the revised thresholds on SB A330-53-3226, AAL kindly request EASA to postpone mandating the accomplishment of this SB. Perhaps separate this SB from the PAD and provide a separate ruling. AAL’s aircraft would likely fall into the grace period (12 months) and the current lead time on the materials is 220 days from Airbus. This does not leave operators much time to acquire the kits nor incorporate this SB into their maintenance programs in a suitable check. The zero-stress jacking requirements for this SB is more conducive for a 6 year (S-Check) environment, however operators may be required to accomplish this SB in a C-check if mandated by the grace period threshold.

**EASA response:**

**A. and A.1: Comments not agreed. See EASA answer to Comment #3, Point A. No changes have been made to the revised PAD in response to this comment.**

**A.2 Comment not agreed. For most SB revisions (no major changes to either Effectivity, Modification Method/Area(s), or Compliance Time), the AD (see Ref. Publication(s)) allows the use of a later SB revision to comply with the AD. No AMOC application would be necessary. The fact that this is different in the United States (US) is unfortunate, but that is not something EASA can address in our AD. It should also be noted that the EASA AD is not ‘required’ for US operators, since it is FAA policy (due to US Regulations) to publish their own ‘cover’ AD, rather than directly adopt an EASA AD. No changes have been made to the revised PAD in response to this comment.**





- A.3 Comment understood. See EASA answer to Comment #3, Point A. No changes have been made to the revised PAD in response to this comment.**
- A.4 Comment not accepted. It should be noted that ‘there are many ways to Rome’, as the saying goes. There are multiple methods to record and report AD (or part of an AD) compliance. To assist operators in this process, we have introduced an Action number for each SB into the AD, facilitating AD (task/SB) compliance recording, which can also be used for reporting or compliance demonstration. This is not unlike recording AD ‘paragraph’ compliance, where one AD may (e.g.) require repetitive inspections (§1), repetitive replacement (§2) at different intervals, and a modification (§3). Clearly, these will (need to) be recorded with separate due dates and (compliance) times. No changes have been made to the revised PAD in response to this comment.**
- B. See answer to Comment #3, Points A. and C.**

#### Commenter 6: Cathay Pacific – Miikka Antila – 07/06/2016

##### Comment # 6

Due the very complex AD proposal Cathay Pacific would like to raise few topics which should be stated more clear way on the coming AD. I have made my listing as following order.

- A. Grace period must be stated per every SB on the table 3. We have many A/C already passed the threshold and for this reason clear grace period must be stated.
- B. For SB's 53-3222, 53-3237 & 53-3238 there were added additional work by SB REV 01. SB revision allows the additional work to be accomplished later per SB compliance table. This additional threshold must be clearly stated on the AD. Cathay have modified some aircraft already using SB rev 00.
- C. For SB's that have window of embodiment requirement now stated please make a statement for action required if any modification has been accomplished before AD issuance. This window of embodiment was not requirement at the time when the SB was issued. Window of embodiment must be added on the table 3.
- D. For note 5 we are having trouble controlling the task if FH value is not given for LR operation. It is not within the line as the FH is given on the SR column. We have mixed fleet and we need to set up the MR following SR or LR depending our type of operation. The second question will be how to calculate the new threshold if the type of operation will change. As standard SMP rule is that any follow up action shall be calculated from the last action but this is one off modification. Cathay Pacific would kindly ask to remove SR and LR different threshold and would like to have only one value.





E. AD should clearly state the values for SR and LR operation. If not clear operator cannot follow AD and must set up all the values to avoid AD over run. Following this method there is no benefit for airline to have separate values.

As a general statement Cathay Pacific propose to remove SR and LR difference from the compliance table. The difference is marginal but it is very complicated to set up the controlling MR. To have clear 24 months grace period would allow airline to accomplish these modifications during normal maintenance slots.

Also Cathay Pacific would kindly ask that the AD effective date would be minimum of 30 days after issuance. The normal 14 days is way too short for airline engineering to get all this paper work to be completed.

**EASA response:**

- A. Comment understood. A grace period is already given for each SB. This is specified in RACT paragraph (2) as Note 4 has been deleted in the revised PAD.**
- B. Comment agreed. See answer to Comment #3, Point E.**
- C. Comment understood but not agreed. At the time of issuance of this revised PAD, the additional actions (if any) that might be necessary are still unknown. This is clearly specified in Note 3 of the PAD. No changes have been made to the revised PAD in response to this comment.**
- D. Comment understood but not agreed. The definition SR and LR operation is to provide operators with more flexibility in managing the continuing airworthiness of the aeroplanes. We suggest that Cathay Pacific contacts Airbus for further explanation on this system. No changes have been made to the revised PAD in response to this comment.**
- E. See answer to point D above. As for the effective date, this point is accepted. As an exceptional case, it is planned to make the revised PAD effective 30 days after its issue date, in order to support operators in dealing with the administration created by this AD.**

**Commenter 7: Air France – Beatrice Volant – 01/08/2016**

**Comment # 7**

In Table 3 Action 7, SB A330-53-3236, only Group 33A is noted. What about Group 32A, 32E, 33B, 33C, 33D and 33E which are referred in SB A330-53-3236.

**EASA response:**



***Comment understood. Table 3, Action 7 (SB A330-53-3236): The calculated SMP for Groups 32A, 32E, 33B, 33C, 33D and 33E aeroplanes is above ESG for these aeroplanes. See also EASA answers to Comment #2, Points A. and B. No changes have been made to the revised PAD in response to this comment.***

