


EASA	COMMENT RESPONSE DOCUMENT
	<p>EASA PAD No. 15-041</p> <p>[Published on 15 April 2015 and officially closed for comments on 29 April 2015]</p>

Note: A corrected version of PAD 15-041 was made available a few days after publication, removing some typographical errors from §§ (17) and (18), where incorrect references were made to Table 1, rather than the intended Table 2. Most comments received on that aspect are (by agreement with the commenters) not included in this CRD.

Commenter 1: Cathay Pacific Airways Ltd – Liza Lee – 17/04/2015

Comment # 1

On the topic of spare supply of AOA sensor, I am sure that EASA have considered the industrial production capability of Thales, but in view of the coming summer vacations, CPA/ H DA worries that there may be a stalling in production capability so request EASA to consider extending the compliance time in Table 1.

EASA response:

EASA has received confirmation from Airbus that the production of the parts will not be delayed due to summer vacations. However, it should be noted that Airbus has defined fixed calendar dates as published by OIT and RIL and it is EASA rule not to mention fixed calendar dates in the AD, Based on the Final AD effective date being 01 June 2015 (originally anticipated to be 1 July), the compliance times have been extended by 1 month each to exactly match the Airbus published dates, 31 December 2015 and 31 March 2017, respectively.

Commenter 2: easyJet Airline Company Ltd – Craig Lynch – 20/04/2015

Comment # 2

Please find easyJet's comments regarding PAD 15-041. EZY agree in principle to the content of this PAD but would like to make the following points:

1. What was the reasoning behind the decision to make A319/320 aircraft batch 2? This decision has put our fleet 6 months behind batch 1 and based on the safety nature of this PAD has placed us at increased risk.
2. Why is the compliance time 21 months? Due to the size of our fleet, we need to replace over x460 AOA sensors to perform A320-34-1610. We appreciate the nature of this PAD but feel 21 months compliance time may be difficult to accomplish given the spares availability. Could it be extended?
3. Will accomplishment of SB A320-34-1610 have an impact on the requirements of PAD 15-037 Para 3? We currently have 3x UTAS sensors (0861ED and

0861ED2) fitted to our fleet. If we fit the Thales sensors P/N C16291AB to positions 1 and 2 will EZY fall under category 'All Other Aeroplanes' as per table 1 of PAD 15-037 and give a compliance time of 24 months for PAD 15-037?

4. EZY is very aware that the Part Number quoted in SB A320-34-1610, C16291AB, has been subject to previous Airworthiness Directive. What assurances can EASA provide that given the aggressive manner we wish to comply with this PAD/AD, we will not have to quickly perform a reversal? This was experienced during compliance of EASA AD 2012-0236 which was quickly followed by EASA AD 2012-0236R1 and EASA AD 2013-0022 to replace AOA sensor conic cover plates.

EASA response:

1. *A priority has been defined for A321/A318 based on Airbus analysis showing that these aircraft are more exposed based on AOA protection thresholds which are lower on these models.*
2. *See EASA answer to Comment # 1.*
3. *EASA confirm that, for an aeroplane with UTAS P/N sensor only installed on the standby position (the other positions either Thales AA or AB), the compliance time as currently proposed in PAD 15-037 will be 24 months for that aeroplane. Installation of 2 Thales Sensors PN C16291AB in Captain's and FO's position with 1 UTAS remaining in standby position is consistent with the provision in paragraph (3) of the AD.*
4. *This AD is based on the latest information and EASA cannot anticipate different or contradictory information becoming available in future.*

No changes have been made to the Final AD in response to points 1, 3 and 4 of this comment.

Commenter 3: Air Malta plc – Patrick Farrugia – 21/04/2015

Comment # 3

Paragraph (15) of the PAD states that replacement of the AOA sensors C16291AA by C16291AB in accordance with the instructions of Airbus SB A320-34-1444 at Revision 01 constitutes terminating action for the repetitive DET and functional heating tests as required by paragraph (12) of this AD for that aeroplane.

Please note that aircraft IPC shows C16291AB as interchangeable with C16291AA. Due to this, we have multiple aircraft that already have had all 3 AOA sensors replaced by C16291AB during normal Line maintenance replacements. Therefore there should not be a need to carry out SB 34-1444 on these aircraft as all 3 sensors are already post-mod.

I think that for aircraft that is found (through records or physical inspection) to have all 3 sensors having P/N C16291AB, this should be considered as terminating action equivalent to the PAD Paragraph 15 without need to perform SB 34-1444 Rev 1.

EASA response:

Comment agreed. The intended purpose of paragraph (15) is not only an optional terminating action, but also gives 'credit' for those aeroplane already in post-SB A320-34-1444 configuration (i.e. all AB sensors). This AD does not require the accomplishment of SB A320-34-1444 for all aeroplanes, except – see §(11) of the AD – for those that still have SEXTANT/THOMSON P/N 45150320 or P/N 16990568 AOA sensors installed. Also note that no compliance time is mentioned in § (15). The Final AD has been amended to remove references to Revision 01 of SB A320-34-1444, from both paragraphs (11) and (15) of the Final AD, thereby implicitly giving credit for actions done in accordance with the original issue of the SB.

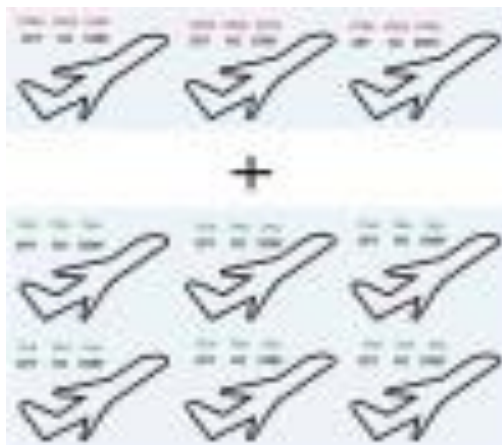
Commenter 4: Vueling – Sergi Ollé – 21/04/2015**Comment # 4**

Regarding PAD 15-041, the status of the Vueling fleet will be the following on 30 April 2015 (after a/c deliveries from Airbus scheduled for this week and next week):

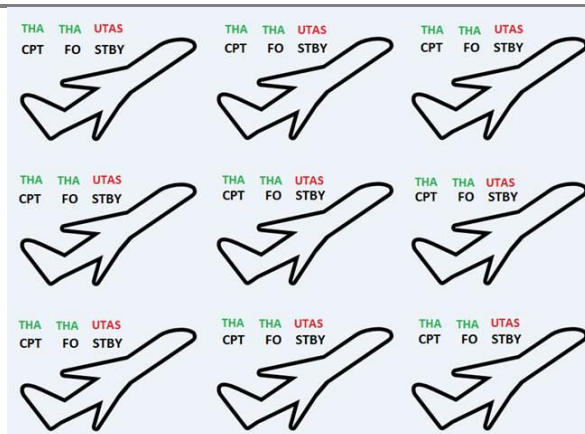
- 80 a/c with 3 AoA sensors P/N C16291AB THALES. Between them, the following ones: MSN 6450, 6483, 6510, 6518, 6535, 6557 (all 6 a/c equipped with ELAC L97+, with enhanced AoA monitoring in order to better detect cases of AoA blockage).
- 1 a/c with 3 AoA sensors P/N C16291AA
- 8 a/c with mixed configuration -AA and -AB.
- 3 a/c with 3 AoA sensors P/N 0861ED UTAS. These are: MSN 5877, 5940, 5885

Vueling is concerned about those 3 a/c with 3 AoA UTAS, MSN 5877, 5940, 5885, and Vueling would like to improve the situation as soon as possible (from a Safety point of view). If Vueling waits for the 6 THALES AoA's P/N C16291AB to be supplied in according with Airbus RIL SA34M15001474 and install them to comply with the future AD, Vueling could have the 3 UTAS aircraft flying with this configuration for 21 months. To reduce as much as possible the number of Vueling flights operated with the fully AoA UTAS configuration, and to comply with PAD/future AD as soon as possible, Vueling proposes the following:

- Uninstall the 6 UTAS sensors at the Captain and First Officer positions of the 3 fully UTAS a/c's MSN 5877, 5940, 5885.
- Uninstall the 6 Thales sensors at the Standby position of a/c's fully Thales (-AB) and with ELAC L97+ MSN 6450, 6483, 6510, 6518, 6535, 6557.
- Install the removed 6 UTAS sensors at the Standby position of a/c's fully Thales (-AB) and with ELAC L97+ MSN 6450, 6483, 6510, 6518, 6535, 6557.
- Install the removed 6 Thales sensors at the Captain and First Officer positions of the 3 fully UTAS a/c's MSN 5877, 5940, 5885
- The result is: 9 aircrafts with the intermix AoA sensors configuration 2 Thales – 1 UTAS (the same configuration that results from the application of SB A320-34-1610 / PAD 15-041 / future AD). Graphically, the proposed modification can be explained as follows:



Initial situation:



Final situation:

However, this action is not permitted by PAD 15-037 paragraph 17:

(17) For an aeroplane on which Thales P/N C16291AA and Thales P/N C16291AB AOA sensors are installed, from the effective date of this AD, or after modification of the aeroplane as required by paragraph (11) of this AD, as applicable, do not install any AOA sensor with a P/N as listed in [Table 2] of this AD on that aeroplane.

Could EASA analyse the alternative solution proposed by Vueling and check if the PAD 15-037 could be amended in order to allow it?

EASA response:

Comment understood, but not agreed. There is no Airbus published document to replace standby Thales probes with UTAS probes, but on a case-by-case basis, Airbus may provide approved instructions to allow such replacement, strictly as a temporary solution.

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

Commenter 5: Air Malta plc – Patrick Farrugia – 22/04/2015

Comment # 5

AIRCRAFT: A319/A320 MSN 2113, 2122, 2189, 2291, 2332, 2382, 2665, 2768, 3056, 3068.

Paragraph 5 of the PAD instructs to remove AOA sensor conic plates by flat plates.

Our aircraft were delivered in production with AOA sensors flat plates, do not have mods 154863 and 154864 (mentioned in paragraph 6) but also never have had conic plates installed during in service (i.e. did not incorporate SB A320-34-1521 during in service). Therefore this makes SB A320-34-1564 mentioned in Paragraph 5 as not applicable for subject aircraft.

In fact, SB 34-1564 states: NOTE: This Service Bulletin is only applicable to aircraft listed below on which Mod. No. 153213P12413 (INSTL A NEW CONIC PLATE FOR AOA (ANGLE OF ATTACK SENSOR) GOODRICH 0861ED AND OLD AOA THALES 45150320) or on which Mod. No. 153214P12604 (INSTALL A NEW CONIC PLATE FOR NEW AOA (ANGLE OF ATTACK) THALES C16291XX) is embodied or on which Service Bulletin No. A320-34-1521 is accomplished.

We have even asked Airbus for interpretation. Attached please find the related email.

However, the only condition that makes paragraph 5 not applicable, is defined in paragraph 6 which ONLY addresses aircraft with mods 154863 and 154864 in production. As it is, the PAD seems to take it for granted that all aircraft have conic plates unless they had mods 154863 and 154864 incorporated in production. This is not correct as per explanation above.

Subject PAD should confirm that Aircraft which (1) did not have conic plates in production AND (2) did not install conic plates in service, are not affected.

EASA response:

Comment not agreed. Paragraph (5) is (as indicated) a re-statement of a previous AD, which applied to all aircraft, requiring action to remove the conic plates. As EASA cannot know (nor can Airbus control) which aircraft have those components installed in-service, the AD requirement was made applicable to all aircraft and must remain active. If no conic plates are installed (either they never were, or have been removed, as required), then clearly no corrective action is necessary: a part which is not there (anymore) cannot be removed. As you can demonstrate that the part was never there, this §(5) requirement can be recorded as (e.g.) "Part (P/N) not/never installed – aircraft compliant – no action necessary".

Another point: Despite the fact that the compliance time has expired, EASA cannot know whether the fleet is, as might be expected, compliant – EASA does not (and cannot) verify worldwide AD compliance.

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

Commenter 6: Pegasus Airlines – Haluk Demirok – 24/04/2015

Comment # 6

Item (15) states that only replacement by 34-1444 R01 constitutes terminating action but there isn't any additional work between R01 and R00.

It would be ease to evaluate if the wording changed to "Revision 01 or earlier".

EASA response:

Comment agreed. See also EASA answer to Comment # 3.

Commenter 7: Lufthansa Technik AG – Jens Wiedau – 28/04/2015

Comment # 7

while reviewing the PAD 15-041 requirements DLH/LHT criticize the several restatements made in this PAD.

All the EASA AD's restated in this PAD are fully accomplished as the compliance time is already reached, month or years ago! Furthermore the CMM's respectively the IPC have been revised to reflect those requirements to ensure the affected parts will never be installed. Consequently there is no valuable reason to introduce those restatements in the upcoming EASA AD. Please correct me if I am wrong and please be so kind to explain the reason behind? Those restatements will increase the complexity of the upcoming EASA AD which lead to a higher risk of human errors while implementing it. In addition this will create much more effort to implement it

in the relevant tracking systems and of course increases the complexity to show compliance to this document.

So as mentioned, DLH/LHT requests to delete the restatements based on the above mentioned facts and in order to focus on the new requirements. Please have also in mind this new requirements is enough burden for the operators so the correction action should be focused as described.

EASA response:

Comment understood, but not agreed. EASA cannot (afford to) assume that, when AD compliance time has expired, all aircraft worldwide have indeed been modified and made compliant. See also EASA answer to Comment #5. In addition, EASA cannot assume that all operators faithfully 'comply' with the latest CMM and IPC revision(s). It should also be noted that the previous ADs – unlike the current writing standard – did not include an explicit post-mod prohibition to re-install 'pre-mod' units (which might still be held as spares, even today) after modification of an aeroplane.

We regret the perception of 'increased complexity', but in our view, for actions which have already been done, compliance should be easy to demonstrate for this new AD. The advantage is that all requirements related to the affected components are now in a single AD – we consider that to be to the benefit of operators, who (e.g.) do not have to consult many ADs when it comes to determine which parts are (or are no longer) eligible for installation.

Nevertheless, depending on further (future) operator comments on this aspect, EASA may reconsider its policy – granted, not yet consistently applied – to 'retain requirements' of previous ADs and superseding them.

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

Commenter 8: Air Malta plc – Patrick Farrugia – 05/05/2015

Comment # 8

Our understanding is that the intent of PAD terminating action step 15 requires that all 3 units are C16291AB, AND if having a serial number mentioned in C16291A-34-007 REV 4 , are also inspected as per C16291A-34-007 REV 1.

However the PAD terminating action (Paragraph 15) calls to upgrade all three units as per SB A320-34-1444 Rev 1. SB A320-34-1444 Rev 1 Paragraph C(2) Subtask 341444-831-002-001 calls for C16291A-34-009. Therefore, PAD step 15 would effectively mandate C16291A-34-009. Our understanding is that should not be needed; units C16291AB and if necessary inspected as per C16291A-34-007 REV 1 is sufficient.

Suggestion:

1. Consider the following as terminating action: Aircraft with all three units installed C16291AB, AND if affected by C16291A-34-007 REV 4 also inspected as per C16291A-34-007 REV 1.
2. Consider future revisions of A320-34-1444 as acceptable means of compliance (i.e. not just revision 1)

EASA response:

Comments understood, but not accepted. Although we concur that P/N C16291AA and P/N C16291AB units identified by s/n in Thales Avionics SB C16291A-34-007 Revision 04 should all have been removed from service, as previously required by EASA AD 2011-0203 and AD 2012-0236R1, EASA cannot assume that has been done worldwide. This is the reason for retaining those requirements – see also EASA answer to Comment #7.

Regarding the commenter's specific suggestions:

1. Understood, but not agreed. All requirements of this AD must be taken into account together, not one paragraph in isolation, which means the units to be installed per § (15) must also (e.g.) meet the requirement of §(4) “do not install”.

2. Use of the original SB is also acceptable – see also EASA answer to Comment #6. For later SB revisions, please note that the Section ‘Ref. Publication(s)’ of the AD clearly states (standard statement in EASA ADs, to avoid unnecessary AMOC applications) that “The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD”.

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