


EASA	COMMENT RESPONSE DOCUMENT
	EASA PAD No. 13-027 [Published on 05 February 2013 and officially closed for comments on 05 March 2013]

Commenter 1: Airbus for All Nippon Airways – Nico Seine – 18 February 2013

Could you please kindly consider the below ANA query:

Ref

/a/ PAD 13-027

/b/ ALS PART 4 issued on JUN15/12

ANA reviewed ref/a/ PAD and have some questions about it. In ref/a/ PAD, there is no mention concerning the occurrence report which is required to report to Airbus and the competent authority within 72hours of the organization identifying the condition to which the report relates. So we believe that it is not necessary to report to Airbus and the competent authority within 72hours.

In ref/a/ PAD, Airbus maintenance documentation is called out but we have no idea what Airbus maintenance documentation is.

Action required,

- 1/ Please let us know if our understanding that it is not necessary to report to Airbus and the competent authority within 72hours, is correct.
- 2/ If negative, please let us know when 72 is started, we believe that it is started from the time when we get the failure information from Supplier or Mechanic.
- 3/ If 3 is negative, please let us know from when we have to report.
- 4/ Please let us know what Airbus maintenance documentation is.

EASA response:

1/ It is not required by ALS Part 4 (nor does PAD 13-027 contain such a requirement) to report an occurrence within 72 hours. In Europe, occurrence reporting is required through regulation EC 2042/2003 Part M.A.202 (b), where it is mentioned that "Reports shall be made as soon as practicable, but in any case within 72 hours of the person or organisation identifying the condition to which the report relates".

EASA and AIRBUS will review and consider amending the ALS document, if necessary, to reinforce that reporting duty already required by continuing airworthiness regulations.

2/ and 3/ – see answer 1/ above.

4/ For the purpose of this AD, Airbus documentation is any Airbus publication, containing instructions relevant to the task to be accomplished, either directly available to the operator or maintenance company, or obtained upon request from Airbus.

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

Commenter 2: US Airways – Richard Castle – 01 March 2013

US Airways has one comment concerning this PAD:

Page 2 of subject PAD states to comply within the compliance times defined in ALS Part 4 Rev. 01 ROR. ALS Part 4, Rev. 01 was approved by EASA on June 15, 2012 and the ROR page gives 1 year to comply with the document. We are now in March 2013 so have essentially lost 9 months within which to comply with the mandate when released. US Airways would like to see the AD compliance time changed to within one year of the AD effective date to give more time for operators to react and revise their approved maintenance programs.

Note: This does not pose any safety concern because the times quoted within the body of the document do not change.

EASA response:

EASA AD compliance times follow those specified for each action in the Airbus ALS document, compliance with which is already 'mandatory' for European operators under regulation EC 2042/2003 Part M, which requires regular (i.e. annual) updates of the approved maintenance programme. Paragraph (3) of PAD 13-027 clearly indicates that such action (no compliance time specified) is acceptable to comply with the AD.

It should be noted that State of Registry authorities outside EASA jurisdiction may require additional or different compliance times, depending on local regulations, and whether the EASA AD is adopted as is, or is re-published as a 'National' AD.

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

Commenter 3: Ken Dickenson, Independent Consultant – 04 March 2013

1. INTRODUCTION

The selection or rejection by Airbus, and subsequent acceptance by the EASA, of instructions as ICA sometimes complicate the activities of maintenance organisations approved under Part-145 and Continuing Airworthiness Management Organisations (CAMO) approved under Part-M. This is the case with Ageing Systems Maintenance (a part of ICA specified as mandatory in approval of the type design).

The issue of an AD to address new or amended mandatory instructions and/or airworthiness limitations may cause additional prejudice to maintenance organisations and CAMO. The AD calls the attention of the competent authority for the oversight of the continuing airworthiness of individual aircraft to the matter and may amplify the difficulties of CAMO/maintenance organisations.

This PAD/AD is founded on an unstable basis.

The review of PAD 13-027 has to take into account the context in which the mandatory instructions and corresponding airworthiness limitations are introduced, and the rules governing this context. This is a requisite to achieve a correct introduction of mandatory directives compatible with the activities of maintenance organisations and CAMO.

The EASA stressed the impact of using ambiguous terms and the importance for providing clarity and accuracy (see Note 1). We have tried to pay particular attention to the terms used in the subject PAD and in this discussion: For example, “approved” does not mean “mandatory”, and “safety task” does not necessarily imply “mandatory compliance”.

Note 1: Refer to the EASA Proposed CM-21A-J-001 issue 01. Refer also to the FAA Advisory Circular (AC) 20-176 “Design Approval Holder Best Practices for Service Bulletins Related to Airworthiness Directives”.

2. SECTION ‘REASON’

Please could the EASA provide its answers to the following questions?

☐ Could the EASA provide the reasons why public has not been consulted earlier on this issue (i.e. PAD should have been published approximately a year ago) and the corrective actions the EASA intends to implement to prevent the possibility of reoccurrence?

This Section states that “Revision 01 of AIRBUS A318/A319/A320/A321 ALS Part 4 introduces more restrictive maintenance requirements and/or airworthiness limitations.”. Failure to comply with more restrictive mandatory maintenance tasks or airworthiness limitations can result in an unsafe condition. The AIRBUS A318/A319/A320/A321 ALS Part 4 revision 01 was approved on June 15th, 2012.

☐ Would the following proposal for the section “Reason” be more appropriate?

“The Instructions for Continued Airworthiness (ICA) that have been specified as mandatory in approval of the type design for Airbus A318/A319/A320/A321 aeroplanes are currently collected in the Airworthiness Limitations Section (ALS).

The Ageing Systems Maintenance (ASM) and the respective airworthiness limitations are specified in Airbus A318/A319/A320/A321 ALS Part 4, which is approved by the EASA. The revision 01 of this ALS Part introduces more restrictive ASM and/or airworthiness limitations. Failure to comply with the ASM or airworthiness limitations contained in this ALS Part revision could result in an unsafe condition.

For the reasons described above, this AD requires the implementation of the ASM and airworthiness limitations as specified in Airbus A318/A319/A320/A321 ALS Part 4 revision 01.”

3. SECTION ‘REQUIRED ACTION(S) AND COMPLIANCE TIME(S)’

Please could the EASA provide its answers to the following questions?

☐ What are the (new) restrictions introduced by the paragraph (2)?

Are not these instructions standard practices? Should EASA confirm the need for their introduction in the AD:

☐ Should not other relevant standard practices be introduced (e.g. conditions in which the aeroplane should be to correctly perform maintenance)?

☐ What should be done for corrective actions that have been applied, but not approved, in the past (i.e. when there was no requirement on this matter in the ASM-related AD or when there was/is no such AD at all)?

Of course, they may be numerous.

Should not these standard practices be included in the rules governing Airbus A318/A319/A320/A321 ALS Part 4 at the opportunity of the next revision? Would not this be a more reasonable solution?

4. COMPLIANCE WITH AIRBUS A318/A319/A320/A321 ALS PART 4 REVISION 01

The GM No. 1 to 21.A.239(a) indicates that the Office of Airworthiness (see Note 2) should ensure (see Note 3) that the manuals approved by the EASA (the Aircraft Flight Manual, Master Minimum Equipment List, the ALS of the ICA and the CMR document, where applicable), including any subsequent revisions, are checked to determine that they meet the respective requirements, and that they are provided to the EASA for approval (ref. subparagraph w, paragraph 3.1.4 of the GM). The subject check is a compliance verification (ref. paragraph 3.1.3 of the GM).

We infer from this GM that (i) the EASA Certification Directorate (see Note 4) has checked Airbus A318/A319/A320/A321 ALS Part 4 revision 01 before approving it, and (ii) the TC holder (TCH) has produced Airbus A318/A319/A320/A321 ALS Part 4 revision 01 (ALS Part 4 author role) and performed an independent check (ALS Part 4 Compliance Verification Engineer (CVE) role).

Note 2: Office of Airworthiness of the Design Approval Holder organisation.

Note 3: The term “ensure” is important as it implies that the compliance verification is not necessarily performed by the Office of Airworthiness.

Note 4: Probably a series of EASA Experts and the EASA Project Certification Manager.

Please could the EASA tell how the following issues will be appropriately taken into account by the stakeholders?

a. SUBPART 4-0 PARAGRAPH 1.G. – MONITORING & TRACEABILITY

There is a substantial number of components in the aeroplane system installations that are involved in major, hazardous or catastrophic failure conditions. The demonstrated operational life for such components has not been specifically and systematically published: CAMO/maintenance organisations are informed only when the operational life for a specific component is less than the aeroplane operational life. They are informed by the publication of a mandatory life limitation in the subpart 4-2 of Airbus A318/A319/A320/A321 ALS Part 4, or in an AD. Traceability of in-service history for affected components has been enforced only recently.

Unfortunately, this practice exposes public to unnecessary risks in the case of components that can be removed from an aeroplane to be fitted to another, as many times as necessary (see Note 5). Compliance with JAR 25.1309 may not be maintained when transferable components are operated beyond their demonstrated operational life. The qualitative and quantitative probability terms of JAR 25.1309 (see Note 6) use the aeroplane operational life. Systems and associated components are designed to support this aeroplane operational life, but justifications may not be available for operation beyond this operational life/assumption.

Note 5: Reference is made to “transferable components”.

Note 6: It cannot be stressed enough that the aeroplane operational life is an assumption used in numerous justifications (structure & systems) for the initial certification of the product that do not remain valid in the case of subsequent certification of some changes to type design (e.g. an extended service goal exercise). Refer to Part 21.A.101.

Operation beyond the applicable demonstrated operational life has already been observed for such components. Consequently, the principle of subpart 4-0 paragraph 1.G., in Airbus A318/A319/A320/A321 ALS Part 4, to monitor crucial transferable components and trace their in-service history is not questioned.

Currently, supplemental components to monitor (i.e. that were not listed in previous revisions) can be introduced at each new revision of Airbus ALS A318/A319/A320/A321 ALS Part 4, without advance notification. When additional transferable components are progressively introduced in Airbus A318/A319/A320/A321 ALS Part 4, CAMO/maintenance organisations are exposed to unanticipated and problematic situations: Rebuilding in-service history is a time demanding activity jeopardizing airline flight service continuity. It also creates a stress on the market of spare components. Although alternative measures aimed at allocating a conservative arbitrary history may be an acceptable mitigation from the airworthiness point of view, they always lead directly or indirectly to financial repercussions, culminating when components must be permanently removed from service.

Please note that it is not a usual practice for CAMO and maintenance organisations to record, keep, request and transfer the component in-service history when it is not required, although some do for some transferable components.

b. SUBPART 4-0 PARAGRAPH 1.J. – OCCURRENCE REPORTING

This paragraph reminds the obligations of operators, CAMO and maintenance organisations in terms of occurrence reporting. It states:

“Accountable persons or organizations shall report to the competent authority and Airbus, any identified condition of an aircraft or component that has resulted or may result in an unsafe condition that hazards seriously the flight safety”

Operators, CAMO and maintenance organisations may not have the competent staff to carry out design reviews. Therefore, they may misevaluate (i.e. overrate or underrate) a condition.

Currently, some reported occurrences eventually turn out to be insignificant as further information becomes available e.g. in the form of supporting documentation: A successful occurrence reporting system accepts reports of insignificant occurrences and the wasted effort they generate in the knowledge that to discourage them might eventually lead to the suppression of a genuine report. But, in the case of a condition underrated at the source, the occurrence report will even not be delivered.

Operators, CAMO and maintenance organisations need to be guided. For occurrences related to construction, manufacturing and maintenance:

- ☐ They can access for structure, the list of Principal Structural Elements or Fatigue Critical Structure (ref. FAR 26 subpart E).
- ☐ They need for systems, a (similar) list of critical systems hardware and software components (derived from Systems Safety Assessments).

The occurrence reporting should be required, at least, for the abnormal conditions (e.g. when the damages/failures exceed the allowable limits given in the maintenance documentation) involving these components. The appropriate location to list these components is Airbus A318/A319/A320/A321 Airworthiness Limitations Section.

c. SUMMARY & ADDITIONAL QUESTIONS

The current practice is a source of airworthiness concerns (e.g. systems components operated beyond their justified operational life) and of financial difficulties (e.g. flight cancellations, maintenance cost increases). It is therefore not compatible with the activities of maintenance organisations and CAMO.

This situation is just not sustainable from an operator's point of view.

Please could the EASA provide its answers to the following questions?

- ☐ Can the EASA provide the list of "components vital to flight safety" for Airbus A318/A319/A320/A321 aeroplanes?

Part M.A.305(h) requires that an aircraft owner or operator ensures that a system has been established to keep details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety. According to the related Acceptable Means of Compliance, a "component vital to flight safety" means a component that is subject to airworthiness limitations or a major component such as, undercarriage or flight controls.

Again, what about the components affected by an airworthiness limitation that is not published because it exceeds the aircraft operational life?

Can the EASA confirm that all "components vital to flight safety" are adequately addressed with such a short list? What are the criteria to identify the other major components? Could there be an inconsistency between the requirements of JAR 25 and the Part-M (in terms of responsibilities and airworthiness objectives)? (see Note 7)

- ☐ Can the EASA explain why TCH have not been so far required to publish the exhaustive list of systems hardware and software components potentially impacted by an airworthiness limitation, even beyond the maximum aeroplane operational life currently demonstrated? Why is there such a difference of management with structure components?

One could ask why this has not been imposed on TCH at time of initial Type Certification as recording of in-service history and monitoring of transferable components is easy when started at the time of initial aeroplane/component delivery.

Note 7: The question does not relate to the term "major", but to the assessment outcomes.

5. WAY FORWARD

We recommended to:

- ☐ Cancel the PAD 13-027,
- ☐ Require the publication of a revision of Airbus A318/A319/A320/A321 ALS Part 4 that will address the subject within a reasonable timeframe (e.g. by the end of summer 2013, or another deadline to be given in CRD to PAD 13-027),
- ☐ Issue an AD requiring compliance with this revision of Airbus A318/A319/A320/A321 ALS Part 4.

6. CONCLUSION

It is our considered opinion that the PAD 13-027 may contribute to add confusion and could expose the public to its potential consequences. We therefore believe that remedial action is necessary.

The engineers who have commented the PAD 13-027 would respectfully request if the answers to these questions could be developed by the EASA. It could be felt that, within various departments of the Type Certificate Holder, a shortfall in direction or experience in the management of aircraft continuing airworthiness could be holding an unmerited influence when addressing ALS issues.

We would like to express in anticipation our thanks to the EASA for the consideration given to our comments and for the release of public answers.

EASA response:

Comments understood but not agreed. In the view of EASA, the commenter provides a personal view on EASA AD policy and Airbus ALS documentation, rather than providing comments specifically focusing on PAD 13-027. In addition, a Comment Response Document is not a forum to open an online debate on either EASA or Airbus standard practices.

As the opinions expressed do not address the merits of the proposed requirements as expressed in the PAD, no changes have been made to the Final AD in response to these comments.