

June 2014

Comments to EASA NPA 2014-04

The Aviation Working Group (www.awg.aero, **AWG**) is comprised of the leading aviation manufacturers, financiers, and lessors. AWG members are involved in a substantial percentage of the world's transfers of aircraft, of which the quality and consistency of maintenance and airworthiness records are essential.

General comment:

AWG supports NPA 2014-04 as it sets out helpful clarification concerning the maintenance and continuing airworthiness records to be retained by the Operator. The present version of the affected sections of Part M results (i) in unnecessary costs and (ii) differing interpretation, reducing the needed clarity. Positive benefits may be expected when the NPA changes are adopted, including easing the transfer of aircraft within Europe. AWG, however, is concerned that the timetable for publication date of the Opinion (Q1 of 2017) is not sufficiently expeditious; we, therefore, request EASA to substantially accelerate the process.

Regulatory text:

M.A. 305

No further changes are recommended to the NPA proposal.

M.A. 614(c) and 145.A.55(c)

The retention periods are not aligned. Please clarify.

Acceptable Means of Compliance (AMC):

AMC M.A.305(c)2 paragraph (b)

This new AMC material replaces previous examples of substantiating data that may be retained by the owner/operator. In AMC M.A.305 (d), however, the list is reduced. While it is reasonable that detailed compliance reports generated by the DAH, and accepted by the Authority in finding compliance, should remain proprietary, the list should be expanded to include master drawing lists (in order that completeness of the data applied to the aircraft may be verified) and other reports that are cumulative in nature (such as electronic load analysis).

AMC M.A.305(c)2 paragraph (c)

Further clarification is required around the term 'field loadable software', which implies that the software may not be changed in a maintenance shop. An alternative term would be preferable to clarify that the intent is to refer to (i) software regarded as a part or component of the aircraft (ii) which is significant in terms of operating or controlling the aircraft (whether the software is installed in the field or not).

AMC M.A.305(c)2 paragraph (e)

Please include further clarification regarding the components for which the status must be known by owner/operators as indicated below (i.e. insert 'mandatory instructions and associated...'):

'It is not expected to have the status of modifications and repairs per each component. This status should include engine(s), propeller(s) and components subjected to mandatory instructions and associated airworthiness limitations, and it is not intended that it should be retained for other components'.

AMC M.A. 305(e)(2) point (1)

The intent of this AMC is not clear due to punctuation and alternate meanings for 'component' (which may mean 'materials' in this case). Clarification is required on whether this refers to substantiation of compliance with the design requirement, or substantiation of the quality processes used to produce the material used in a repair or modification. If the reference is to substantiation of compliance with the design requirement then the owner/operator would require appropriate 'substantiation data' but if the intent is substantiation of quality procedures used in the production of the material used by the maintenance organisation then the maintenance organisation would need to retain appropriate substantiation. An alternative sentence may be:

'EASA Form 1 and the Certificate of Conformity of the components and/or materials used to perform a modification/repair are retained by the maintenance organisation and are not part of the substantiation data for a modification/repair required to be retained by the owner or operator'.

Guidance Material (GM):

General comment on GM:

While recognising that Part M embraces general aviation and commercial operations, the references to 'owner' and 'operator' could benefit from further clarification or a more appropriate term may be considered (e.g. 'person or organisation responsible for the aircraft continuing airworthiness').

GM M.A.305 paragraph 6.

'Dirty Finger Print' is a slang term and can be expected to become more obsolete as the use of electronic signatures for maintenance activities becomes more prevalent. Please provide a definition for the term or consider an alternate term (e.g. certified task card) that includes 'dirty finger print' as an example.

The distinction provided for the use of the term 'detailed maintenance records' as it applies to maintenance organisations versus owners/operators, in which it is clarified that maintenance organisations are required to retain more detail than owner/operators, is

helpful however the reference to ‘may not need’ in respect of ‘Dirty Finger Prints’ to be retained by owner/operators is vague and appears subjective.

Additional clarification is needed such as ‘When a CRS for a major assembly details the work performed on discrete elements of that assembly then individual ‘dirty finger prints’ do not need to be transferred from the Part 145 organisation 5 to the owner/operator’.

The guidance should not suggest that the owner/operator can treat the Part 145 as an extended library for future access to maintenance records and should instead be clear that the owner/operator should obtain from the Part 145 organisation all maintenance records necessary to demonstrate compliance with the owner/operators continuing airworthiness management obligations from the Part 145 organisation.

GM M.A.305(d)(2) item (3):

Please revise the sentence to be clearer as indicated below:

*‘(3) ~~Note:~~ **Condition Monitoring***

Components ~~which are not time controlled are instead~~ subject to Condition-Monitoring. ~~These components~~ are permitted to remain in service without preventive maintenance until a functional failure occurs (i.e. they are ‘fly-to failure’).’

GM M.A.305(e)(3):

The caveat ‘unless this is the means to fulfil another requirement quoted in M.A.305, (e.g. maintenance programme task compliance)’ is unclear since condition monitoring components may remain in service without preventive maintenance until failure. We propose that the Agency revise this sentence as follows:

‘The EASA Form 1 or equivalent, and associated detailed maintenance records, ~~is~~ are not requested to be kept for ‘condition monitoring’ components unless this is the means to fulfil another requirement quoted in M.A.305, (e.g. ~~maintenance programme task compliance~~ demonstration of AD compliance).’

When condition monitoring components are subject to reliability monitoring further guidance material is beneficial. GM M.A. 305(e)(3) could therefore be elaborated as follows:

‘It may be necessary to record the maintenance status for condition monitoring components which are monitored under a reliability/health monitoring programme as applicable in accordance with the aircraft maintenance programme. A fitted component list of components monitored for reliability by the person or organisation responsible for the aircraft continuing airworthiness may be kept in order to record the installed component part and serial number, time of component installation and applicable monitored criteria.’

AMC M.A.305(e) paragraph (c):

The topic of this section would appear to be better described as 'Form of Records' with some amendments to the related text. The following minor amendment is proposed:

“(c) Form of records-keeping:

Producing and/or keeping continuing airworthiness records in a form acceptable to the competent authority normally means in ***either material/physical or electronic state, or a combination of both.***

Retention of records should be done in one of the following formats:

(1) original paper document or secured set of electronic data~~as the original form (either paper or via an approved electronically signed form), or~~

(2) a paper reproduction of a paper document (original or copy), or

(3) an electronic reproduction of a secured set of electronic data (original or copy), or

(4) a printed reproduction of a secured set of electronic data (original or copy), or

~~(25) as an electronically digitised reproduction-copy of the original~~ ***document form (original or copy), or***

~~(36) as a microfilm or scanned reproduction-copy of the original~~ ***a paper document form (original or copy), or***

(4) as a paper form where the paper record is a printed reproduction of an original form from either (1), (2) or (3) above.

Where IT systems are used to retain documents and data, it should be possible to print a paper version of the documents and data kept.”

AMC M.A.305(e) paragraph (e):

Please amend the section to consider that a digitised record may be made from a copy as well as an original. The following minor amendment is proposed:

“(e) Digitised Records:

Digitised records may be created from an original ***a paper-record document (original or copy)*** ~~or as a digital-electronic-original~~ ***secured set of electronic data.*** *When created from an original* ***a paper-record document:***

(1) the creation date of the digitised record should be stored with the digitised record,

(2) it is advisable to create an individual digitised record for each-original ***document,*** *and*

(3) if an organisation creates a large number of digitised records, the use of database technology should ease the future retrieval of the record.”

AMC M.A.305(e) paragraph (f):

This section describes the security of digitised records and the security principal is generic and should apply irrespective of form of the source data. The following minor amendment is proposed:

“(f) Digitised Record Retention:

*Digitised records when created from ~~an original~~ **a paper-record document**, or as a ~~digital electronic original~~ **secured set of electronic data**, should be stored on a system which is secured and kept in an environment protected from damage (e.g. fire, flooding, excessive temperature or accidental erasing). [...]*

The system used for retention of digitised records must:

- 1. Ensure the integrity (**whatever the record creation form**) and accuracy of the record (when created from ~~an original~~ **a paper-record document**).*
 - 2. Ensure that access to the digitised record has safeguards against alteration of the data.*
 - 3. Provide assurance that the data has not been modified after creation.*
- [...]*

*Computer backup discs, tapes etc., should be stored in a different location from that containing the current working discs, tapes, etc., and in a safe environment. Where the competent authority has approved a system for digitised record keeping satisfying the above, the ~~original~~ **paper-record document** may be permanently disposed of.”*

END