



European Union Aviation Safety Agency
Comment-Response Document 2018-01

RELATED NPA: 2018-01 — RMT.0252 (MDM.056) — 27.5.2021

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1. Summary of the outcome of the consultation

Summary of the comments and the responses to them

502 comments were received during the public consultation of NPA 2018-01 'Instructions for continued airworthiness'¹.

The more relevant comments can be summarised as follows:

- The NPA is missing the necessary period to implement the control of changes to the ICA in accordance with Subpart D of Part 21.
- The NPA proposes to merge all the requirements for ICA, manuals and record keeping: the specificities like for repair design should not be missed with the grouping.
- The NPA is missing the impact that the proposed amendments will have on Part-M.
- Several commentators are concerned with the strengthening of the control of changes to the ICA under the design approval holder (DAH), considering that it will limit their ability to amend the ICA.
- The NPA proposes to introduce a statement indicating that a document is part of the ICA, which could be challenging for documents referred to by several ICA.
- The NPA proposes to add the ICA to the type certificate (TC), which creates disharmonisation with the FAA.

The comments related to the proposed amendments to Part 21 were published with Opinion No 07/2019 'Instructions for continued airworthiness | Installation of parts and appliances that are released without an EASA Form 1 or equivalent'² in CRD 2018-01 'Instructions for continued airworthiness'³.

The comments related to the proposed AMC and GM by the NPA 2018-01 are published here.

¹ <https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2018-01>

² <https://www.easa.europa.eu/document-library/opinions/opinion-072019>

³ <https://www.easa.europa.eu/document-library/comment-response-documents/crd-2018-01>



2. Individual comments and responses

In responding to the comments, the following terminology has been applied to attest EASA's position:

- (a) **Accepted** — EASA agrees with the comment and any proposed amendment is wholly transferred to the revised text.
- (b) **Partially accepted** — EASA either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.
- (c) **Noted** — EASA acknowledges the comment, but no change to the existing text is considered to be necessary.
- (d) **Not accepted** — The comment or proposed amendment is not agreed by EASA.

Proposed amendments to AMC/GM (Part 21) — New GM 21.A.5

p. 12

comment

372

comment by: IATA

IATA Comment

Existing Text	Comment / Proposed Text	Justification
<p>There is a significant concern with this NPA approach regarding the identification and publication of ICA in a manner not ensuring in the operator's user perspective a sufficiently clear and safe segregation from non ICA material – see use impracticality from the operator's standpoint when faced with some possible result of combined provisions in: AMC No.2 to 21.A.7(a) 3) ; GM No 1 to 21.A.7(a) 2) and 3); GM No 2 to 21.A.7(a) 1) a. and 2)</p>	<p>The GM No 1 to 21.A.7(a) 2) states that "the data containing the instructions itself is the ICA, not any particular type of publication".</p> <p>While we completely agree with this, the consequence is that no document/manual can be identified as ICA (e.g. per the obligation in 21.A.265 (h)) unless the respective document/manual contains only ICAs.</p> <p>A direct consequence of the above quoted text from GM No 1 to 21.A.7(a) 2) would be that ICA identification should be available (when applicable) at the instruction level and not necessarily at the manual level. Case in point: while a supplier CMM may not be in its entirety an ICA, some of its content might be in ICA and should be identified as such.</p> <p>Additionally, the expectation is that when any product ICA references supplier's data, that</p>	<p>The regulatory provisions for ICA should be worded such that they prevent any unsafe aircraft maintenance practice behavior induced by lack of visibility of ICA nature of some data/instruction. Insufficient segregation in a common publication repository (e.g. a manual) of ICA and non-ICA could be conducive to such unsafe premises.</p>



	<p>data becomes itself an ICA (see AMC No.2 to 21.A.7(a) 2)). This expectation, which we completely share, is ruling out the scenario proposed by GM No 2 to 21.A.7(a) 2) provision which states "...the aircraft level ICA can provide, as additional or optional maintenance information, the references of the supplier's data even if it is not considered as part of the ICA..."</p>	
response	<p>Noted</p> <p>It should be noted that the new AMC 21.A.7(b) explains how the DAH will list or refer to all the ICA in the TCDS.</p>	

comment	<p>411</p> <p>The new GM illustrates the difficulty of moving the generic record keeping requirements, and it uses GM to identify that AMC is relevant, which appears inconsistent. The record keeping requirements are effectively repeated through this GM.</p> <p>Proposed Solution: Propose to leave record keeping requirements in the relevant SubPart (M in this case).</p>	comment by: <i>Rolls-Royce plc</i>
response	<p>Not accepted</p> <p>It is considered that the benefit of removing all the duplications of this requirement from Part 21 compensates for the difficulty that this GM may introduce for some records such as repair designs.</p>	

New AMC No.1 to 21.A.7(a)	p. 12
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comment	<p>11</p> <p>"...any limitations necessary for ICA...": Those limitations need to be defined detailly. This statement seems not enough to state the issue. (If these limitations include operating limitations, maintenance limitations, usage life/part replacement limitations, and, the limitations that dictated by the manintenance concept should be stated accordingly. This issue may be another weak point of the Part 21.)</p>	comment by: <i>Yuksel Kenaroglu</i>
response	<p>Not accepted</p> <p>As indicated in this AMC, these limitations are determined during the certification process.</p>	



comment	<p data-bbox="359 280 391 309">39</p> <p data-bbox="1204 280 1476 309">comment by: <i>LHT DO</i></p> <p data-bbox="359 336 1476 403">1.3 This part should be more specific to definitely exclude non required actions. Please exchange "any actions required" by "the minimum actions required".</p> <p data-bbox="359 436 1476 504">Please delete 2.3 to avoid disruptions of maintenance and operation if the TC holder does not react in time upon required corrections or clarifications.</p> <p data-bbox="359 548 1476 616">Please add: The instructions for continues airworthiness data shall include the intention of the specific task.</p>
response	<p data-bbox="359 683 1029 712">Accepted for 1.3, which has been amended accordingly.</p> <p data-bbox="359 728 1476 795">Not accepted for 2.3, which should help operators identify the problem, and for the last one which is covered by 2.4.</p>
comment	<p data-bbox="359 862 391 891">53</p> <p data-bbox="1212 862 1476 891">comment by: <i>Pilatus</i></p> <p data-bbox="359 918 1476 1310"> <ul style="list-style-type: none"> · Is troubleshooting guidance part of the ICA? According to the proposed AMC No.1 to 21.A.7(a) (Contents of ICA) (2)(2.3), “troubleshooting actions determined to be necessary to establish the nature of faults and necessary remedial actions” should be included in the ICA. The unclear phrase is “necessary to establish the nature of faults”. Does this mean that troubleshooting procedures must be specified only for those faults where there is only one acceptable sequence of investigation permitted for troubleshooting, and troubleshooting guidance for all other faults need not be addressed under ICA? It is also noted that Fault Isolation Guides (or Troubleshooting Manuals, etc.) are not included in the list of ICA documents provided in the proposed GM No.1 to 21.A.7(a). The last paragraph of GM No 2 to 21.A.7(b) describes troubleshooting procedures outright under the heading “Format of ICA”. </p> <p data-bbox="359 1355 1476 1736"> Pilatus is of the opinion that troubleshooting help given to maintenance personnel is not instructions necessary to ensure the continued airworthiness of the aircraft, i.e. not part of the ICA. It helps the maintenance personnel to establish which component or system is faulty in order to enable them to rectify the fault. However, <i>how</i> this is determined is too variable to be contained within the formal constraints of ICA. It may be done based on personal experience, a scattergun approach by replacing multiple components, or using troubleshooting guidance, etc. The troubleshooting guidance again may be anything between static decision trees in documents and highly dynamic (and learning) reasoning engines whose information changes instantaneously when maintenance personnel enter information. It would obviously not be possible to impose any configuration and release control on such dynamic sets of information. </p> <p data-bbox="359 1780 1476 1982"> It is noted that troubleshooting guidance may make reference to AMM procedures for certain steps (for example if the troubleshooting involves jacking the aircraft to do checks of the undercarriage, or removing panels to gain access to a terminal block where a voltage is measured, or performing a functional check of the weather radar). Such actions to troubleshoot a system, if not performed correctly, may incur a risk both for the continued airworthiness of the aircraft as well as for personnel performing the task. </p>



In any case, once the faulty component is identified by the troubleshooting action, the repair/removal/installation and any subsequent testing/calibration etc. must be done iaw. an approved AMM procedure, and the aircraft returned to service with a maintenance release.

Pilatus proposes that the rules and AMC more clearly define the meaning of “necessary troubleshooting actions”, as well as the boundary between such actions covered under ICA rules and generic troubleshooting information. If it is EASA intent to consider all troubleshooting guidance provided by the TC holder to be ICA then Pilatus requests that the new regulation and AMC/GM explicitly addresses how to handle dynamic reasoning engine based troubleshooting tools/applications.

response

Partially accepted

GM No.1 to 21.A.7(a) has been amended to add ‘troubleshooting manual’, even if this GM gives only a list of examples.

When the design approval holder (DAH) develops such a manual, it is considered as ICA.

comment

90

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 13 - GM No 1 to 21.A.7(a) Scope of ICA, their publication format and typical ICA data

“1) ICA can be published in documents or in a manner that is outside the traditional understanding of a document, for example, as a series of web pages, or in a publishing format linked to tasks or data modules rather than pages.”

2. PROPOSED TEXT / COMMENT:

It is proposed to update this paragraph as follows:

“1) ICA can be published in documents or in a manner that is outside the traditional understanding of a document, for example, as a series of web pages or IT(Information Technology) tools, or in a publishing format linked to tasks or data modules rather than pages.”

3. RATIONALE / REASON / JUSTIFICATION:

It is appreciated that this GM recognized that ICA may be published in manner outside the traditional understanding of document. It is proposed to add IT tools that are already used today for ICA.

response

Accepted

This GM has been amended accordingly.

comment

96

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page12/13

AMC No. 2 to 21.A.7(a) Identification of ICA



3) Additional or optional maintenance information not considered as ICA but published together with the ICA should be evaluated appropriately by the DAH, in order to ensure that its use will not compromise the continued airworthiness of the product or article.

2. PROPOSED TEXT / COMMENT:

Additional or optional maintenance information not considered as ICA but published **by the DAH** together with the ICA should be evaluated appropriately by the DAH, in order to ensure that its use will not compromise the continued airworthiness of the product or article.

3. RATIONALE / REASON / JUSTIFICATION:

It is not reasonable to require the DAH to review all CMMs containing ICAs (i.e the CMMs that support MRBR/ALS tasks) to confirm that the non-ICA content will not compromise the continued airworthiness of the product. That information constitutes a vendor/recommendation and is neither endorsed nor not endorsed by the DAH. The DAH responsibility should be limited to ensuring that its non ICA recommendations (e.g. ISB, ISI, TFU) do not contain any instructions that might compromise the continued airworthiness of the product.

It is asked whether there has ever been a case where suppliers' non-ICA recommendations have compromised the continuous airworthiness of the product (aircraft)?

response

Accepted
The AMC has been amended accordingly.

comment

108

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 12 – AMC No. 1 to 21.A.7(a) Contents of ICA

2. PROPOSED TEXT / COMMENT:

This AMC refers to restorations actions or remedial actions. Whereas repairs are recognised as maintenance instructions, they are not ICA per se.

It should be clarified somewhere (e.g. GM No 1 to 21.A.7(a)) that repair designs and associated accomplishment instructions are not ICA. However repair designs may need specific ICA.

3. RATIONALE / REASON / JUSTIFICATION:

For sake of clarity and to avoid misunderstanding.

response

Accepted



Paragraph 3 of GM No 1 to 21.A.7(a) has been clarified for specific repairs which are not ICA.

comment 137

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 12/37, AMC No. 1 to 21.A.7(a)

2. PROPOSED TEXT / COMMENT:

The term 'limitation' in this AMC has been interpreted in two ways. Is reference made to mandatory instructions and associated airworthiness limitations, to technical limitations (mm, °C, etc), or to both?

This is ambiguous.

This AMC should state that airworthiness limitations should reflect airworthiness considerations without taking into account any economic or operational aspects.

3. RATIONALE / REASON / JUSTIFICATION:

For sake of clarification.

response Not accepted

The limitations referred to here are the limitations established by the certification process.

comment 138

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 12/37, AMC No. 1 to 21.A.7(a)

2. PROPOSED TEXT / COMMENT:

This AMC refers to the continued (/continuing?) airworthiness of the product or article, or to a product or article that is no longer airworthy.

This kind of wordings introduces an inconsistency with the point M.A.301, which refers to the continuing airworthiness of the aircraft and the serviceability of both operational and emergency equipment.

3. RATIONALE / REASON / JUSTIFICATION:

From the standpoint of the IR on Continuing Airworthiness, the term 'airworthiness' (or its derivatives) is used at the level of the aircraft (i.e. not applicable to all products: engines and propellers excluded), and the term 'serviceability' is used at the lower levels.

Initial and Continuing Airworthiness regulations must be addressed from a consistent end to end perspective.

response Accepted

'Continued airworthiness' will be used for Part 21.

comment 139

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 12/37, AMC No. 1 to 21.A.7(a)



2. PROPOSED TEXT / COMMENT:

The paragraph 1.3 of this AMC refers to any actions required to restore the product or article to an airworthy (/serviceable) state.

Is the term 'action' referring to 'maintenance'? Should the aim is to refer to something else, it should be specified.

What are the differences with 'maintenance actions' in the paragraph 2.2?

3. RATIONALE / REASON / JUSTIFICATION:

The term 'maintenance' encompasses specific actions and excludes some others: e.g. pre-flight inspections are not covered by this term (ref. Regulation (EU) No 1321/2014).

For sake of consistency with Regulation (EU) No 1321/2014.

response

Not accepted

1.3 refers to the minimum necessary action to restore the airworthiness of the product, whereas 2.2 refers to the maintenance action identified by the certification process.

comment

140

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 12/37, AMC No. 1 to 21.A.7(a)

2. PROPOSED TEXT / COMMENT:

The paragraph 1.3 of this AMC refers to the term 'withdrawal'. Has it the same meaning as 'permanently withdrawn from service'?

3. RATIONALE / REASON / JUSTIFICATION:

For sake of consistency.

The Opinion No 13/2016 - CRD 2014-04 defines the term 'permanently withdrawn from service'. It means for an aircraft or component, to be moved to a location that is not used for storage and/or future return to service.

response

Noted

Here it refers to the permanent withdrawal of the product.

comment

141

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 12/37, AMC No. 1 to 21.A.7(a)

2. PROPOSED TEXT / COMMENT:

The paragraph (2) of this AMC should include an item about instructions (e.g. imposing on/recommending to the person or organisation responsible for the management of the aircraft continuing airworthiness to contact the relevant holder of a design approval) in case of abnormal events.

3. RATIONALE / REASON / JUSTIFICATION:

response	<p>Typically, the AMM 05-51 provides data to determine the airworthiness status of the aircraft following abnormal events (e.g. hard landing). This would be considered as ICA.</p> <p>Not accepted It is covered by GM No 1 to 21.A.7(a).</p>
comment	<p>142 comment by: AIRBUS</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 12/37, AMC No. 1 to 21.A.7(a)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>The paragraph (2) of this AMC refers to the term ‘instructions’ in the subparagraph 2.1 and to the term ‘maintenance actions’ in the subparagraph 2.2. It is unclear why two different terms are used. Further, what is the meaning of ‘servicing actions’, ‘troubleshooting’ or ‘remedial actions’ in subparagraphs 2.2 and 2.3?</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>The term ‘maintenance’ is defined in the Article 2 of Regulation (EU) No 1321/2014: ‘maintenance’ means any one or combination of the following activities: overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft or component, with the exception of pre-flight inspection. ‘servicing’, ‘servicing action’, ‘troubleshooting’ or ‘remedial actions’ are not addressed in this definition and therefore may be considered irrelevant from the standpoint of this regulation. For example, it is probable that the term ‘inspection’ fits the intent of ‘troubleshooting’ and the terms ‘repair’ and/or ‘defect rectification’ fit the intent of ‘remedial actions’. Initial and Continuing Airworthiness regulations must be addressed from a consistent end to end perspective.</p>
response	<p>Not accepted</p> <p>The RMT.0252 rulemaking group considers that the terminology covers the intent of this paragraph and it refers to point 1.5.3 of Annex II to Regulation (EU) 2018/1139.</p>
comment	<p>182 comment by: ARSA</p> <p>ARSA's recommended addition to this AMC is necessary given the suggested change to GM No 2 to 21.A.7(a) that would require all CMMs for components included in the type design to be considered ICA, furnished to owners and made available to other persons required to follow those instructions. That recommended change is necessary to align the design regulations with the maintenance regulations.</p> <p>AMC No. 1 to 21.A.7(a) Contents of ICA (1) The instructions for continued airworthiness should identify:</p> <p>1.1 any limitations necessary for the continued airworthiness of the product or article; 1.2 the means to determine when the product or article has deteriorated to the extent that it is no longer airworthy;</p>



	<p>1.3 any actions required to restore the product or article to an airworthy state before points 1.1 or 1.2 have been exceeded, as an alternative to the withdrawal of the product or article from service.</p> <p>(2) The instructions for continued airworthiness should therefore include:</p> <p>2.1 any limitations determined through the certification of the product, and instructions on how to determine that these limits have been exceeded.</p> <p>2.2 any inspection, servicing or maintenance actions determined to be necessary by the certification process.</p> <p>2.3 any inspection, servicing or maintenance actions for articles installed on the product to the extent required for the management of continuing airworthiness functions under Part-M or for performing maintenance in a workshop in accordance with Part-145.</p> <p>2.34 any inspection or troubleshooting actions determined to be necessary to establish the nature of faults and the necessary remedial actions.</p> <p>2.45 sufficient general information on the operation of the product to enable an understanding of the instructions in 1.1 to 1.3 of paragraph (1) above.</p>
response	<p>Not accepted</p> <p>The decision of making a CMM part of the ICA is the responsibility of the design approval holder (DAH). It is not expected that all CMMs will be declared as ICA by the DAH.</p>
comment	<p>262 comment by: HEICO Aerospace</p> <p><u>HEICO Comment 5</u>- Clarification for Consistency in defining inclusion in the Instructions for continued Airworthiness.</p> <p><u>Comment</u>- Clarify page 12, para 3.2.2 (2) Sentence 2.2</p> <p><u>Suggested Resolution</u>: Revise the current sentence from : 2.2 “ any inspection, servicing or maintenance actions <u>determined to be necessary by the certification process</u>” to: any inspection, servicing or maintenance actions <u>required to keep or restore the product or article to an airworthy state</u>.</p> <p><u>Justification</u>: The phrase “necessary by the certification process” can add confusion to clear meaning and interpretation. The suggested resolution noted above is consistent with required ICA content throughout the draft document.</p>
response	<p>Not accepted</p> <p>This determination is made during the certification process by the design approval holder (DAH) and EASA.</p>
comment	<p>266 comment by: Europe Air Sports</p> <p>AMC No. 1 to 21.A.7 (a)</p> <p>(2) 2.4 Who defines what “sufficient” means? The main purpose of this NPA is meant to increase clarity, to reduce ambiguity and room for interpretations.</p>



response	Not accepted This determination is made during the certification process by the DAH and EASA.
comment	283 comment by: <i>FNAM</i> PROPOSAL.1 FNAM and GIPAG suggest indicating in that AMC that in case of changes/repairs/STC with no ICAs (often the case for minor changes/repairs), a statement specifying that no ICAs are associated to the change/repair should be provided by the DAH. (see comment 278)
response	Not accepted ICA are mentioned in the changes/repairs/STC when necessary: by default, if there is no indication, it means that there are no ICA.
comment	284 comment by: <i>FNAM</i> ISSUE.2 - Transition measures and Catch-up process FNAM and GIPAG thank EASA for describing precisely the content of ICAs. Indeed, it would help for the redaction of these documents and improve their implementation. Idem Comment 278
response	Noted
comment	316 comment by: <i>Zodiac Aerospace - Sell GmbH DOA 21J.067</i> Since not each article may have limitations necessary for the continued airworthiness, these Contents of ICA should be identified only "if applicable". In addition, the requirements and related content of the Instructions for Continued Airworthiness are stipulated in the Certification Specifications, e.g. CS-25 Appendix H for Large Aeroplanes, and there should be a clear link without ambiguity to these specification for. To be consistent add "article" to (2). Proposed text: AMC No. 1 to 21.A.7(a) Contents of ICA (1) The instructions for continued airworthiness should identify, <i>if applicable and in accordance with the applicable certification specification</i> : 1.1 any limitations necessary for the continued airworthiness of the product or article; 1.2 the means to determine when the product or article has deteriorated to the extent that it is no longer airworthy; 1.3 any actions required to restore the product or part of the product or article to an airworthy state before points 1.1 or 1.2 have been exceeded, as an alternative to the withdrawal of the product or article from service. (2) The instructions for continued airworthiness should therefore include, <i>if applicable and in accordance with the applicable certification specification</i> : 2.1 any limitations determined through the certification of the product <i>or article</i> , and instructions on how to determine that these limits have been exceeded. 2.2 any inspection, servicing or maintenance actions determined to be necessary by the certification process.



response	<p>2.3 any inspection or troubleshooting actions determined to be necessary to establish the nature of faults and the necessary remedial actions.</p> <p>2.4) sufficient general information on the operation of the product <i>or article</i> to enable an understanding of the instructions in 1.1 to 1.3 of paragraph (1) above.</p> <p>Partially accepted</p> <p>The reference to Certification Specification is considered useful but the applicability will be determined by the implementation of the CS.</p>
comment	<p>357 comment by: FAA</p> <p>1. This would appear to create conflict between these content details, in EASA Part-21, and the requirements in the certification standards. Also, placement in EASA Part-21 makes applicability to the various products addressed by the certification standards debatable. Recommend that these requirements be verified as universally compatible, or better, place these details in the individual certification specifications as appropriate.</p> <p>2. Is (1) 1.2 intended to be “inspection criteria?” If so, it should be granulated across the product or article.</p> <p>=</p> <p>3. Add "overhaul" to the summary of what constitutes ICA.</p>
response	<p>Partially accepted</p> <p>1. The addition of the reference to the Certification Specification will prevent this confusion.</p> <p>2. The sentence covers both products and articles.</p> <p>3. This list is just an example and it is not intended to be exhaustive.</p>
comment	<p>381 comment by: Pratt & Whitney Canada</p> <p>Regarding: AMC No. 1 to 21.A.7(a) - (1)1.3 <i>“any actions required to restore the product or article to an airworthy state before points 1.1 or 1.2 have been exceeded, as an alternative to the withdrawal of the product or article from service.”</i></p> <p>Comment: As written, it could be interpreted as meaning that all repairs must be defined in the ICA. A repair that is not in the ICA does not provide an alternative to article withdrawal. Recommend clarification.</p>
response	<p>Partially accepted</p> <p>The addition of the reference to the Certification Specification limits the scope of the actions and does not include all the repairs which can be developed.</p>
comment	<p>382 comment by: Pratt & Whitney Canada</p> <p>Regarding:</p>



AMC No. 1 to 21.A.7(a) - (2)2.4
 “sufficient general information on the operation of the product to enable an understanding of the instructions in 1.1 to 1.3 of paragraph (1) above”
Comment:
 Agreed with the spirit, but "general information" is very undefined . Any one person’s ability to understand an overhaul procedure may differ from another’s.
 Recommend clarification.

response Not accepted
 Considering that ICA are produced for a large variety of products, it is difficult to be more precise.

comment 392 comment by: IATA
 IATA Comments

Existing Text	Comment / Proposed Text	Justification
AMC No. 1 to 21.A.7(a) (1) 1.3 “any actions required to restore the product or article to an airworthy state before points 1.1 or 1.2 have been exceeded, as an alternative to the withdrawal of the product or article from service.”	AMC No. 1 to 21.A.7(a) (1) 1.3 “any actions required to restore the product or article to an airworthy state before limitations (per point 1.1) or deterioration (per point 1.2) have been exceeded, as an alternative to the withdrawal of the product or article from service.”	The proposed wording is considered as better reflecting the required compliance with the constraints identified in points 1.1 and 1.2.

response Accepted
 The text has been amended accordingly.

comment 412 comment by: Rolls-Royce plc
 AMC No 1 to 21.A.7 states:
 "1.2 the means to determine when the product or article has deteriorated to the extent that it is no longer airworthy."
 This could be interpreted to mean "all available means", when in fact there may be optional or alternate means that are not part of the ICA. Suggest rewording.

Reword to:
 "1.2 means to determine when the product or article has deteriorated to the extent that it is no longer airworthy."

AMC No 1 to 21.A.7 states:



"1.3 any actions required to restore the product or article to an airworthy state before points 1.1 or 1.2 have been exceeded....."

Even though the actions are "required", this could be interpreted to mean "all available actions", when in fact there may be optional or alternate actions that are not part of the ICA. Suggest rewording.

Reword _____ to:
 "1.3 actions required to restore the product or article to an airworthy state before points 1.1 or 1.2 have been exceeded....."

Regarding Contents of ICA identifying "any actions required to restore". Is it EASA's intent that "any actions" infers "all repairs"?

Proposed Solution: Noting the point above, clarify that the "actions to restore" are only those actions essential for the continued airworthiness of the product.

AMC No 1 to 21.A.7 refers to the actions necessary for" the continued airworthiness of the product or article"

Including "and article" suggests that it isn't sufficient to to maintain the airworthiness of a product by simply replacing an article, "

Suggest rewording, or deleting "and article".

Proposed Solution: Either delete "and article", separate the GM between products and articles, or add an explanatory note.

AMC No 2 to 21.A.7, in item 3) discusses "maintenance information not considered ICA, but published together with the ICA".

The term "published together with the ICA" needs clarification. This suggests that if the maintenance information is not in the same physical or web location as the ICA, then it doesn't need to be properly evaluated, which clearly is not the intention of this GM. We believe the GM is there to advise that the complete set of maintenance information (some possibly provided by suppliers) which the DAH (eg for the aircraft) makes available for the product must be evaluated not just the subset that is ICA.

Proposed Solution: Reword for clarity

response

Partially accepted



1.2. The text has been amended accordingly.
 1.3. With the amended text, the intend of this comment is covered.
 Product or article: the article is kept because of ETSO.
 AMC No 2 to 21.A.7: with the amended text, the intend of this comment is covered.

comment

458

comment by: FedEx Express

This section contains what should be identified and included in the ICA. FedEx believes this section should be updated to include more detailed specifications on what needs to be provided in all ICAs to make a component airworthy. The definition of what is the fundamental maintenance needed to restore a component to an airworthy condition should be clearly identified.

Section 3.2.2 "AMC No 1 to 21.A.7(a) Contents of ICA", FedEx would recommend the following language added under item "(2) The instructions for continued airworthiness should therefore include":

2.X 2.X) all details for the fundamental maintenance needed to return a component to a serviceable condition. Fundamental maintenance would be defined as inspection, troubleshooting, sub component testing, provision of tolerances and/or critical specifications, disassembly, repair, assembly and final operational testing.

response

Not accepted

Considering that ICA are produced for a large variety of products, it is difficult to be more precise.

comment

466

comment by: MARPA

AMC no. 1 to 21.A.7.(a) at paragraph 1.3 states that ICA should identify "any action required to restore the product or article to an airworthy state . . ." Paragraph 2.2 builds on this by requiring ICA to therefore include "any inspection, servicing or maintenance actions determined necessary by the certification process." We believe the intention of these provisions is to require the Holder to develop such data in the ICA that allows the product owner or any other person required to comply with the terms of the instructions, such as a duly certificated maintenance organization, to be able to refer to the ICA and perform the maintenance on the product or article themselves (assuming ability to do so).

Many recent revisions to ICA have seen the Holder remove the actual step-by-step instructions and data, and replace that information with the instruction to simply remove and return to the Holder or one of their authorized facilities. We do not believe that this satisfies the spirit (or the intent) of the AMC as drafted. We believe that the intent is that the actual instructions for the performance of an inspection, servicing, or maintenance action, including all relevant data, be included so that persons required to comply can actually perform the actions. We therefore recommend the following clarification to paragraphs 2.2 and 2.3 of AMC no. 1 to 21.A.7.(a):

2.2 any inspection, servicing or maintenance ~~actions~~ *instructions, data, and other information* determined to be necessary by the certification process *to perform the actions*.



2.3 any inspection or troubleshooting ~~actions~~ instructions, data, and other information determined to be necessary to establish the nature of faults and the necessary remedial actions.

We believe that these clarifications will make clear that instructions to remove and return for service, or to simply remove and replace any assembly or component for which repairs are reasonably available, are insufficient to satisfy the requirements for the contents of ICA.

response

Not accepted

Considering that ICA are produced for a large variety of products, it is difficult to be more precise.

New AMC No.2 to 21.A.7(a)

p. 12-13

comment

12

comment by: *Yuksel Kenaroglu*

"4)If the maintenance data made available...":
Every information provided by DAH, should be evaluated by DAH for applicability, suitability to the whole aircraft, sub-systems, etc. DAH should stay in the responsibility chain !

response

Not accepted

This data is provided by the operator and is not under the responsibility of the DAH.

comment

16

comment by: *Lufttransport AS*

Very good that this NPA is issued!

AMC No. 2 to 21.A.7(a) or somewhere else, should specify or emphasize requirements for information from STC's (incl. changes to STC) regarding;

- Mass & Balance,
- Electrical load,
- Noise Certificate,
- Any Flight Manual supplements.

response

Not accepted

This AMC is of a generic nature and cannot cover all the specific cases.

comment

40

comment by: *LHT DO*

Please add to 2). If the ICA reference is considered as ICA, the specific data of this reference shall be indicated as ICA data.

response

Not accepted



When a CMM is declared by the DAH as ICA, it is part of the ICA that the DAH must list. But as a CMM could be referred by more than one DAH, the CMM cannot include the fact that it is part of the ICA of this particular DAH.

comment 52

comment by: *Pilatus*

· What are some specific examples of “optional maintenance information not considered as ICA about published together with the ICA”?
AMC No. 2 to 21.A.7(a) requires that such optional maintenance information should be evaluated by the DAH, but it is not clear what information could fall under this category.

Pilatus proposed to add explanation and a few examples for clarification.

· How are suppliers data related to scheduled maintenance approved or endorsed when they are part of the ICA? Or – what is the difference between “*supplier’s data related to instruction on how to accomplish the scheduled maintenance part of the aircraft ICA*” and “*supplier’s data related to scheduled maintenance on the component*”?

GM No 2 to 21.A.7(a) states that supplier’s data related to scheduled maintenance part of the ICA are part of the ICA – implying that they are approved data and marked as such iaw 21.A.265. But also the supplier’s data related to scheduled maintenance of the component will become part of the ICA.

Using the example of the fire extinguisher, Pilatus understands the first to be the requirement to remove the fire extinguisher for hydrostatic test, and the latter to be how to perform the test. In this case, the data related to schedule maintenance of the component is part of the ICA... but is it now approved und DAH or just “endorsed”?

response Noted

· The DAH is not responsible for the content of he fire extinguisher CMM but may help users by pointing at the related CMM as a means to test the fire extinguisher.

comment 143

comment by: *AIRBUS*

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 13/37, GM No. 1 to 21.A.7(a)

2. PROPOSED TEXT / COMMENT:

The list of publications proposed in the second paragraph of this GM has been a source of controversial comments in our organisation. It is proposed to be more generic and so to refer to types of data that may include instructions for continued airworthiness.

For example:

- ICA associated to repair design, instead of Structural Repair Manual/Aircraft Structural Repair (that are currently not mentioned in the list).
- ‘Certification Maintenance Requirements’, ‘Airworthiness Limitations Items’ and ‘Fuel Tank Safety related limitations (e.g. CDCCL)’ can be gathered under the term ‘mandatory instructions and associated airworthiness limitations’

3. RATIONALE / REASON / JUSTIFICATION:



	<p>In the end, the list has been found misleading and may be taken as a definitive (even with the precautions included in the associated wording). As other people and authorities will read and interpret Part-21, not just the EASA and the DAHs, it would be appropriate to be more generic in order to prevent misinterpretations (e.g. other authorities expecting/imposing requirements on documentation for items not considered as ICA by design approval holders or EASA).</p>
response	<p>Not accepted The precautions should prevent this misunderstanding.</p>
comment	<p>181 comment by: ARSA</p> <p>ARSA suggests the following changes to this AMC to make clear that the ICA includes <u>all</u> component maintenance and overhaul manuals for any item of installed equipment. Component maintenance data is necessary for continued airworthiness since, in most cases, a product would not conform to its type design if it is flown with inoperative equipment. Additionally, in its maintenance rules, EASA has determined that the manufacturer's component maintenance data <u>must be obtained</u> by a Part-145 organization (see 145.A.42) and used to perform the relevant work. It is long past time that the design rules be connected to the maintenance rules.</p> <p>AMC No. 2 to 21.A.7(a) Identification of ICA</p> <p>The instructions for continued airworthiness may be provided in the documents containing other, additional or optional, maintenance information, as described in point 21.A.6, or in another acceptable format as per GM 21.A.7, with the following provisions:</p> <ol style="list-style-type: none"> 1) the information necessary for continued airworthiness is clearly identified (refer to AMC 21.A.7 (b)). 2) instructions for continued airworthiness may reference additional Instructions for continued airworthiness in separate publications where necessary (for example, those produced by suppliers). 3) Additional or optional maintenance information not considered as ICA but published together with the ICA should be evaluated appropriately by the DAH, in order to ensure that its use will not compromise the continued airworthiness of the product or article. 4 3) If the maintenance data made available by a DAH includes data from an operator (i.e. in order to customise the data for the operator, and created under the authority of the operator), the operator's data should be identified as such, and the DAH is not required to additionally evaluate it.
response	<p>Not accepted</p>



Only the CMMs which are considered as ICA by the TC holder are ICA, not all CMMs.

comment	216	comment by: <i>Jeff Conner</i>
	<p>"The instructions for continued airworthiness may be provided in the documents containing other additional or optional, maintenance information, . . . "</p> <p>Comment: GE appreciates the clear recognition by EASA that TC Holders may elect to include "additional or optional maintenance information" along with ICA for the benefit of operators without this additional information becoming part of the ICA.</p>	
response	Noted	
comment	240	comment by: <i>Dowty Propellers</i>
	<p>"The instructions for continued airworthiness may be provided in the documents containing other additional or optional, maintenance information, . . . "</p> <p>Comment: Dowty appreciates the clear recognition by EASA that TC Holders may elect to include "additional or optional maintenance information" along with ICA for the benefit of operators without this additional information becoming part of the ICA.</p>	
response	Noted	
comment	258	comment by: <i>HEICO Aerospace</i>
	<p><u>HEICO Comment 1</u> – ICA Documents may Contain other Additional or optional Maintenance Information.</p> <p><u>Comment:</u> Page 12, section 3.2. paragraph 3. is unclear and potentially adds confusion to what is or is not ICA. Instructions that are required to restore an article to an airworthy condition by definition are the Instructions for Continued Airworthiness.</p> <p><u>Suggested Resolutions:</u> Clarify/revise noted paragraph to clearly state that ICA documents are stand alone, complete instructions. Remove the sentence "<u>The Instructions for continued airworthiness may be provided in the documents containing other, additional or optional maintenance information.....</u>" and replace with "<u>The instructions for continued airworthiness have the following provisions: 1.....</u>"</p> <p><u>Justification:</u> ICA must be straight forward and cannot be confused with a mixture of "other" or "optional" maintenance information that may NOT be considered ICA. These instructions, however described, are required to restore and keep the product in an airworthy condition. Therefore, all addition and optional maintenance information contained in ICA, are ICA. This must be definitely stated to avoid confusion and the possibility that ICA can be unclearly defined and/or "split" into ICA and non ICA. The owner/operators and their approved maintenance providers must have a complete set of clearly defined instructions in order to properly implement those instructions and perform required maintenance in a consistent and safe manner.</p>	
response	Not accepted	



It is up to the DAH to publish ICA according to its needs, provided that all the necessary content in accordance with the Certification Specifications is included.

comment

259

comment by: HEICO Aerospace

HEICO Comment 2 – Additional or Optional Maintenance information not considered as ICA

Comment: Clarify/revise page 13, section 3.2 , paragraph 3.3) to eliminate potential confusion regarding “optional maintenance information” not considered ICA but published together with the ICA. The DAH must not have an option to restrict or remove required maintenance instructions that are appropriately ICA and needed by the operators and their maintenance providers to restore and keep the product in an airworthy condition.

Suggested Resolutions: Clarify/revise noted paragraph to state “Additional or Optional maintenance information published together with ICA are considered ICA and must be evaluated appropriately by the DAH in order to determine that its use will ensure the continued airworthiness of the product or article”.

Justification: As written, this paragraph could result in confusion by the maintenance provider on precisely which parts of the ICA documents are ICA and are not considered ICA. This could lead to potential unsafe conditions in implementing such instructions. For example, what criteria are used to identify and determine what information constitutes “additional or optional information” that would NOT be considered ICA. In addition, the statement that this information “published together with the ICA should be evaluated appropriately by the DAH, in order to ensure that its use will not compromise the continued airworthiness of the product or article”, means that it IS ICA (Instructions for Continued Airworthiness). It is not a safe practice to allow the DAH the “freedom”/flexibility to select and define a combination of documents, some of which are considered ICA and some are not considered ICA. All information and instructions required to restore and keep the product in an airworthy condition are ICA and must be clearly defined as such.

response

Not accepted

It is up to the DAH to publish ICA according to its needs, provided that all the necessary content in accordance with the Certification Specifications is included.

comment

267

comment by: Europe Air Sports

AMC No. 2 to 21.A.7 (a)

The intent of (3) is not clear enough, a stricter formula must be found, otherwise nothing will be achieved. The provision requires the DAH to evaluate; should it not then give the DAH clear guidance on how to react to the evaluation results?

response

Not accepted

The content of the ICA is evaluated by EASA during the certification process.

comment

317

comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067



	<p>Delete 4) since it is not properly established what are Maintenance Data vs. additional or optional maintenance information. In addition, if data are created under the authority of the operator but made available by the DAH this bears unclear responsibilities with risks of lack of appropriate actions in case of continued airworthiness/safety issues.</p> <p>In addition, related terms in this NPA are not consistently used and should be appropriately specified to delete any ambiguities, e.g. maintenance data, ICA data, maintenance program, additional or optional maintenance information, supplier's data, operator's data.</p>
response	<p>Not accepted</p> <p>Data provided by the operator cannot be under the responsibility of the DAH.</p>
comment	<p>358 comment by: FAA</p> <p>1. This would appear to create conflict between these content details, in EASA Part-21, and the requirements in the certification standards. Also, placement in EASA Part-21 makes applicability to the various products addressed by the certification standards debatable. Recommend that these requirements be verified as universally compatible, or better, place these details in the individual certification specifications as appropriate.</p> <p>2. Common practice has been to reference supplier's data without revision information, leaving the user to verify the appropriate revision level. In the US regulatory scheme, incorporation by reference of mandatory provisions carries the requirement of mandating changes to those provisions by rulemaking, here an airworthiness directive.</p> <p>3. The provisions for non-Instructions for Continued Airworthiness information ("additional or optional" information, or operator source information) seems contrary to the intent of this rulemaking. Would this non-Instructions for Continued Airworthiness information be valid for use under Part-M? Is it intended to be acceptable for use under 14 CFR?</p> <p>4. Could repair information (including engines and propellers) be categorized as "additional or optional" information?</p> <p>Concerning AMC No 3 to 21.A.7(a):</p> <p>5. Would this check/validation requirement be applicable to US State-of-Design, design approval applicants and holders?</p> <p>=</p> <p>6. Clarify whether this section pertain to repairs and repair manuals. The answer may lead to further comments.</p>
response	<p>Not accepted</p> <p>1. This AMC should be considered as guidance which is applicable to all products.</p> <p>2. Revision information is not required in the list of ICA.</p> <p>3. It is already the case where other data than ICA is used by Part-M approved organisations; however, Part-M is clarified in this regard.</p> <p>4. Most of the repairs are not ICA.</p> <p>5. Part 21 is not applicable to US applicants.</p>



6. This section pertains to ICA and will be applicable to repairs and repair manuals if these documents are declared as ICA by the DAH.

comment 375 comment by: Embraer S.A.

It is not clear if it is permitted for an airline perform alterations to its maintenance program if the alterations stands against the contents of an ICA, even considering the need of an authority approval in such scenario.

response Not accepted

In such case it is up to the competent authority of the aircraft operator to approve (or not) the maintenance programme.

comment 383 comment by: Pratt & Whitney Canada

AMC No. 2 to 21.A.7(a) - (2)
“If the product ICA references the use of a supplier’s data (e.g. CMM or section) as the appropriate location for the ICA, those applicable instructions are incorporated by reference and become part of the complete set of the ICA for the product.”

Comment:
 The incorporation of CMMs into the ICA is clear. However, as stated, this means that the COMPLETE set of ICAs furnished to every owner and maintainer will contain the complete CMMs for all components. Thus all owners get all complete CMMs – this raises significant Intellectual Property issues, as well as supplier contract aspects.
 Recommend rewording.

response Not accepted

Only CMMs which are considered as ICA by the DAH are part of the ICA, not ‘all CMMs’.

comment 393 comment by: IATA

Existing Text	Comment / Proposed Text	Justification
AMC No. 2 to 21.A.7(a) 3) “Additional or optional maintenance information not considered as ICA but published together with the ICA should be evaluated appropriately by the DAH, in order to ensure that its use will not compromise the continued airworthiness of the product or article.”	A CMM includes additional or optional information originating from the respective supplier. If the same CMM includes some ICA material, the wording of AMC No. 2 to 21.A.7(a) 3) implies that the aircraft DAH should evaluate the complete CMM in order to ensure that its use will not compromise the continued airworthiness of the aircraft. Please confirm the validity this rationale.	

response Noted



As indicated by the amended text, this AMC covers the information published by the DAH. However, if the DAH declares a CMM as ICA, it must evaluate it as indicated.

comment 413 comment by: *Rolls-Royce plc*

response Noted

comment 435 comment by: *Dassault-Aviation*

§3.1 page 13

GM No 1 to 21.A.7(a) Scope of ICA, their publication format and typical ICA format

Comment:

LIST OF ICA:
 This point is misleading as it contains a list which is then declared not exhaustive nor a minimum list of ICA.
 It would be more profitable to agree a minimum list of ICA included in this GM .

response Not accepted
 This list is given as an example: a minimum list would not fit the variety of products to be covered.

comment 456 comment by: *FedEx Express*

This section reference the ability for an ICA to be published in multiple documents or reference additional documents. While FedEx understands the need to do this, it leaves ambiguity with regards to the minimum required information in the principal document. The principal ICA should include enough substantive content needed to perform fundamental maintenance.

This level of ambiguity allows the DAH to provide an ICA that contains minimal information and references a proprietary repair document. This forces the operator to either: use the DAH as the primary repair vendor, replace (rather than repair) upper level components, or develop a third party procedure for returning a component to service. The industry wide practice of developing third party repair procedures defeats the objectives of this proposed rule, (reference impact assessment NPA Section 4.1.3) and increases the risk of incorrect maintenance using unapproved methods.

FedEx would recommend the following language be added in between sub paragraphs 2) and 3):

X) If instructions for continued airworthiness are referenced in separate documents, those documents must be made available to all parties, including the operator and third party repair



response	<p>vendors. Any inspection, troubleshooting, or repair procedure that consists of elementary operations must not be housed in a proprietary DAH document.</p> <p>Not accepted The content of the ICA is evaluated by EASA during the certification process.</p>
comment	<p>467 comment by: MARPA</p> <p>AMC No. 2 to 21.A.7(a) states that ICA "may be provided in the documents containing other, additional or optional, maintenance information . . ." This could be a source of confusion and could pose a risk to aviation safety.</p> <p>ICA must be straight forward and clear. The origin of this NPA arises in the fact that TC Holders have been able to cast doubt and question what data and information is considered "ICA" and what is not. To allow ICA to be confused with some mixture of "other" or "optional" maintenance information that may for some reason not be considered ICA would serve to return us to the <i>status quo ante</i>, with an ambiguous definition of ICA, and certain Holders seeking to exploit that ambiguity to refuse to provide maintenance data for anticompetitive gain.</p> <p>These instructions, however described, are required to restore and keep the product in an airworthy condition. Therefore, any additional and/or optional maintenance information contained in ICA should themselves be considered ICA. This must be definitely stated to avoid confusion and the possibility that ICA can be unclearly defined and/or "split" into ICA and non ICA, which is the current source of confusion. The owner/operators and their approved maintenance providers must have a complete set of clearly defined instructions in order to properly implement those instructions and perform required maintenance in a consistent and safe manner. To split ICA into two different categories, one of which is optional, risks returning us to the situation where CMMs are not followed and Icelandair flights are forced to make emergency landings.</p> <p>We recommend striking the allowance for additional or optional maintenance information so that the introduction to paragraph 3 reads as follows: "The instructions for continued airworthiness may be provided [] with the following provisions:"</p>
response	<p>Not accepted The content of the ICA is evaluated by EASA during the certification process.</p>
comment	<p>468 comment by: MARPA</p> <p>Paragraph 3 to AMC No. 2 to 21.A.7(a) should be struck to eliminate potential confusion regarding "optional maintenance information" not considered ICA but published together with the ICA. The DAH must not have an option to restrict or remove required maintenance instructions that are appropriately ICA and needed by the operators and their maintenance providers to restore and keep the product in an airworthy condition. We recommend striking the entire paragraph and eliminating the concept of "optional" maintenance information. Such ambiguity will create inconsistent maintenance practices across products and could cause confusion as to what maintenance has been performed on a particular article (notwithstanding log entries) and make tracking performance for COS purposes needlessly difficult.</p>



As one of our members has pointed out, as written this paragraph could result in confusion by the maintenance provider as to exactly which parts of the ICA documents are and are not considered ICA. This could lead to potential unsafe and inconsistent conditions in implementing such instructions. Further, it is not clear what criteria would be used to identify and determine what information constitutes "additional or optional information" that would NOT be considered ICA. In addition, the statement that this information "published together with the ICA should be evaluated appropriately by the DAH, in order to ensure that its use will not compromise the continued airworthiness of the product or article", means that the so-called "optional" maintenance information is, in fact, ICA, as it related directly to continued airworthiness. It is not a safe practice to allow the DAH the ability to select and define a combination of documents, only some of which are ICA, and some of which are optional. This runs the risk of needless confusion and the possibility of a mandatory maintenance activity being treated as an optional maintenance activity. To assume such a safety risk makes little sense, with seemingly no reward, except to DAHs who may define certain (potentially lucrative) actions as "optional" in order to withhold them as "not ICA" for competitive reasons. All information and instructions required to restore and keep the product in an airworthy condition are ICA and must be clearly defined as such.

response Not accepted

The content of the ICA is evaluated by EASA during the certification process.

comment 469

comment by: MARPA

Paragraph 2 to AMC No. 2 to 21.A.7(a) reads "If the product ICA references the use of a supplier's data (e.g. CMM or section) as the appropriate location for the ICA, those applicable instructions are incorporated by reference and become part of the complete set of the ICA for the product." Incorporation by reference has the potential to be abused by a Holder and a supplier engaging in a finger pointing exchange of blame for each failing to provide the required instructions. Ultimately, it is safety that will suffer. We recommend a slight addition to the language to ensure that the Holder is ultimately responsible for ensuring that product owners and persons required to comply with the instructions are able to obtain them.

We recommend adding the following: "If the product ICA references the use of a supplier's data (e.g. CMM or section) as the appropriate location for the ICA, those applicable instructions are incorporated by reference and become part of the complete set of the ICA for the product, *and the DAH retains ultimate responsibility for ensuring that data is available to those to whom it must be furnished or made available.*"

By establishing a person of ultimate responsibility, the possibility of a supplier refusing to provide the data and the Holder shrugging its shoulders is eliminated, and persons will be better able to obtain the necessary data for the performance of maintenance.

response Not accepted

The DAH is responsible for the publication of the ICA, and when a CMM is declared as ICA, it is the DAH's responsibility to make it available as mandated by 21.A.7(b).



comment	<p>13 comment by: <i>Yuksel Kenaroglu</i></p> <p>In here, or, at the another section of this document it may be advisable to give an answer the question "what the ICA ensures (role of the ICA)?"</p> <p>As it was stated before, "airworthiness limitations items" may be sampled as detailed as possible. "Corrosion Prevention and Control Program...Requirements". At this moment, it may be advisable to give an answer to this question: "Who will decide whether a requirement is ICA or not".</p>
response	<p>Not accepted</p> <p>The content of the ICA is evaluated by EASA during the certification process.</p>
comment	<p>14 comment by: <i>Yuksel Kenaroglu</i></p> <p>In this section of the document ther may be some schenarios to consider: Let's assume that there is a crack in the wing spar found. This type crack is not indicated / classified in the Inspection-Repair Manual. Who will decide that this aircraft can be flown for some (limited) time with a inspection program application) ? Will this decision be ICA ? If not, why ? Shortly, it may be better to accept these instructions that are created case by case basis as ICA. (EASA or Design-Maintenance/Repair Organisations should take responsibility to classify these random issues under their pirivileges; if any.)</p> <p>("A Boeing 747 cargo plane crashed in Brussels after take off; 25 May 2008" could be related ?) Another issue MEL/MMEL. Are MEL/MMEL instructions assumed as ICA ? "As an alternative to linking... supplier's data is not...": If a instruction is offered as an alternative to a instruction that is accepted as ICA, this new/alternative procedure should be accepted as ICA, also. Otherwise, its importance (effectivity) degree will have been made less important !</p> <p>Page 14, (b), last paragraph: Disagree with this paragraph. Whether an ICA is from supplier or DAH, it should be assumed as ICA. Having an alternate (but comperable solution) procedure for an supplier's ICA, doesn't change the status (or importance) of the supplier's ICA.</p>
response	<p>Not accepted</p> <p>The example given is not related to ICA.</p>
comment	<p>30 comment by: <i>Alvaro Esteban</i></p> <p>Despite of the Note, in the scope of the RMT.0252, is any <i>subtask group</i> in charge of the standarization of the "<i>minimum list of ICA</i>."?</p>



	<p>From ToR: "Subtask 1: — Definition and identification of ICA (to be provided during the certification process)."</p> <p>It is expected from EASA to lead the definition of a standard minimum list of ICA?</p>	
response	<p>Not accepted</p> <p>GM to Part 21 cannot address all the types of products which render 'a minimum list of ICA' inadequate.</p>	
comment	<p>41</p> <p><u>GM no 1 to 21.A.7(a)</u></p> <p>AD 2) If CMM or Overhaul Manuals may contain ICA, the ICA data shall explicitly be indicated by the DAH documentation as well as within the CMM or Overhaul Manual.</p> <p>ad 3) If maintenance tasks may be hidden by the TC holder, the TCH may urge the operators to use their own maintenance and not that of an MRO.</p> <p>Therefore, the reason for each exception must be public and the development of ICA related maintenance tasks should be provided by the TCH upon request on a short term basis.</p> <p><u>GM No 2 to 21.A.7(a)</u></p> <p>Please add: If ICA data is included in supplier's data instructions, the specific ICA data for the related product shall be indicated as such.</p>	comment by: <i>LHT DO</i>
response	<p>Not accepted</p> <p>The identification of ICA per point 21.A.265 was not kept after the NPA because of the difficult implementation for CMMs which may be referred by several TCHs.</p>	
comment	<p>58</p> <p>Suggestion for added content to GM No 2 to 21.A.7(a), in a section which could provide further clarification by providing examples of ICAs:</p> <ul style="list-style-type: none"> · - A CMM complete could be an ICA, but it is also possible that a section of a CMM, or sections inside a CMM, are ICAs, hence a CMM can comprise both types of sections: ICAs which are properly identified as such (as per point 21.A.265(h)) and sections not considered as ICAs · - instructions provided at a lower maintenance level the results of which can be verified by instructions provided at a higher maintenance level (typically by a functional acceptance test) are by default not ICAs, even if the higher maintenance level instructions are themselves ICAs 	comment by: <i>Safran Landing Systems</i>
response	<p>Not accepted</p> <p>The identification of ICA as per point 21.A.265 was not kept after the NPA because of the difficult implementation for CMMs which may be referred by several TCHs.</p>	
comment	<p>71</p>	comment by: <i>CAA-NL</i>



response	<p>GM No 4 to 21.A.7(b), in the last paragraph, the word “incorporated” is used. Does this include the engine/propeller maintenance data that is only referred to?</p> <p>Noted</p> <p>The incorporated data is the data declared as ICA by the TCH, including engine and propeller data.</p>
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comment	comment by: AIRBUS
response	<p>85</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p> <p>Page 14 – GM No2 to 21.A.7 (a) determination of which supplier data are part of ICA <i>Note 2: In this GM the term ‘supplier’s data’ has to be understood as supplier’s data (e.g. a full CMM) or part of a supplier’s data (e.g. part of a CMM).</i></p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>It is proposed to update this Note 2 as follows:</p> <p><i>“Note 2: In this GM the term ‘supplier’s data’ has to be understood as supplier’s data (i.e. a full CMM) or part of a supplier’s data (i.e. part of a CMM).</i></p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>“e.g.” is too vague and may be understood as any data provided by suppliers (e.g. drawing) whereas the purpose of this paragraph is related to maintenance data usually published in CMM.</p> <p>Accepted</p> <p>The text has been amended accordingly.</p>

comment	comment by: AIRBUS
response	<p>86</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p> <p>Page 14 – GM No2 to 21.A.7 (a) determination of which supplier data are part of ICA <i>1) When determining whether a supplier’s data is part of the ICA, the following should be considered:</i></p> <p>...</p> <p>- <i>supplier’s data related to scheduled maintenance on the component should be endorsed by the DAH before becoming part of the aircraft ICA.</i></p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>It is understood that the “endorsement by the DAH” refers to the possibility for the DAH not to retain a “supplier’s data related to scheduled maintenance” based on the DAH reviews of the supplier’s recommendation. So it is always the DAH that makes the final decision, through the MRB process for example.</p>



	<p>As a result it is proposed to amend the text as follows:</p> <ul style="list-style-type: none"> - <i>“supplier’s data related to scheduled maintenance on the component should be endorsed by the DAH, before becoming part of the aircraft ICA, to define and confirm if the supplier’s data are applicable and effective.</i> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>For clarification.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>87 comment by: AIRBUS</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p> <p>Page 15 – GM No2 to 21.A.7 (a) determination of which supplier data are part of ICA</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p><i>“3) For the supplier’s data identified as part of the ICA, the DAH should:</i> <i>a. identify the supplier’s data that is part of the ICA; this can be achieved either by creating a listing or by any other acceptable means that allows which data is part of the ICA and which is not to be identified (refer to AMC 21.A.7(b));”</i></p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>Missing words.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>97 comment by: AIRBUS</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p> <p>Page 14</p> <p>GM No 2 to 21.A.7(a) Determination of which supplier’s data are part of ICA</p> <p>1) When determining whether a supplier’s data is part of the ICA, the following should be considered:</p> <ul style="list-style-type: none"> — supplier’s data related to the Airworthiness Limitations Section (ALS) — supplier’s data related to instructions on how to accomplish the scheduled maintenance part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a functional check in a workshop. Example: fire extinguisher removal for hydrostatic test: this test is performed in a workshop in accordance with the supplier’s data instructions.



2. PROPOSED TEXT / COMMENT:

— supplier’s data related to instructions on how to accomplish the scheduled maintenance part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a **workshop task. Example: escape slide removal for restoration** in accordance with the supplier’s data instructions.

3. RATIONALE / REASON / JUSTIFICATION:

The hydrostatic test is not a good example to include in the NPA. Industry is reviewing the effectiveness of such tasks and may conclude that they no longer merit inclusion as ICAs. There are currently widely varying views among DAHs and some have already declared the task to be ineffective for continued airworthiness, other types of task being sufficient for this purpose. There are several alternative examples that could be used. The escape slides are proposed simply because these are fitted on most aircraft and, since they cannot be functionally tested on wing, will typically be removed for restoration as part of the DAH’s ICAs.

response

Accepted

The text has been amended accordingly.

comment

109

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 13 – GM No1 to 21.A.7 (a) Scope of ICA, their publication format and typical ICA data Paragraph 2:

...”and which may therefore include ICA, consist of: — Aircraft Maintenance Manuals (AMMs); — Scheduled Maintenance Requirements (e.g. MRBRs); — Off-Wing Component Maintenance or Overhaul Manuals; — Parts Catalogues; — Tooling Manuals; — Wiring Diagram Manuals; — Weight and Balance Manuals; — Service Bulletins; — Electrical Loads Analyses; — Extended Range Operations (ETOPS) Configuration Maintenance Programs/Plans; — Supplemental Structural Inspection Documentation; — Certification Maintenance Requirements; — Airworthiness Limitations Items; — Aging Aircraft Maintenance Requirements; — Fuel tank safety related limitations (e.g. CDCCL); — Electrical Wiring Interconnection System instructions; — Corrosion Prevention and Control Programmes.

Note: This is only an example of the publications that may contain ICA according to CS-25; this list is not supposed to be exhaustive, nor is it a minimum list of ICA.”

2. PROPOSED TEXT / COMMENT:

It has been noted that the list of publications that may contain ICA has been repetitively subject to controversial discussions and leading to misinterpretations.

It is proposed either to remove it or to further emphasize that it is only example by amending the note as follows:

*“This is only an example of the publications that may contain ICA according to CS-25; this list is not supposed to be exhaustive, nor is it a minimum list of ICA. **This means that some DAHs***



may exclude some of the above publications from their ICA or decide to include some that are not listed above.”

3. RATIONALE / REASON / JUSTIFICATION:

To avoid misunderstanding.

response

Not accepted

The wording indicates clearly that these are examples only.

comment

110

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 13 – GM No3 to 21.A.7 (a) Non-ICA supplier’s data (e.g. Component Maintenance Manuals) referenced or published as additional information in the same repository as the ICA

2. PROPOSED TEXT / COMMENT:

For sake of clarity it is proposed to update the title of this paragraph to as follows:

“GM No3 to 21.A.7 (a) Non-ICA supplier’s data (i.e. Component Maintenance Manuals) referenced or published as additional information in the same repository as the ICA”

The last sentence reference the wrong GM. It is proposed to update the sentence as follows:

“may be issued by the supplier under contract or arrangement to the DAH using the methodology proposed in AMC N°3 to 21.A.7(a).”

3. RATIONALE / REASON / JUSTIFICATION:

Self-explanatory.

response

Accepted

The text has been amended accordingly.

comment

144

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 13/37, GM No. 1 to 21.A.7(a)

2. PROPOSED TEXT / COMMENT:

It is proposed to amend the paragraph 3) of this GM to read:

*“3) [...]. A certain level of deterioration may require a product or an article to be **removed permanently withdrawn** from service, and restoration may not be reasonably achievable. [...].”*



	<p>What does the term 'restoration' refer to... restoration of airworthiness? Can the term 'restoration' be covered by 'overhaul' in the definition of the term 'maintenance'?</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>For sake of clarity and consistency with a previous comment, and with the Opinion No 13/2016 - CRD 2014-04.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>

comment	<p>145</p> <p style="text-align: right;">comment by: AIRBUS</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 14/37, GM No. 1 to 21.A.7(a)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>The paragraph 3) of this GM indicates that certain deteriorations or levels of deterioration may require specific instructions that will only be developed and provided on a case-by-case basis, as needed, for a given product, and as such, will initially not be included in the ICA. Whereas the intention of this GM is fully supported, especially for repair design instructions included in the SRM, how does this fit with point 21.A.7(b)?</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>The paragraph (b) of point 21.A.7 requires from repair design approval holders (for example) to furnish a set of complete ICA to the aircraft owner (for example) upon aircraft delivery or upon the issuance of the first CofA for the affected aircraft, whichever occurs later.</p>
response	<p>Not accepted</p> <p>This GM applies to TC holders that may be allowed to delay the issuance of some ICA, whereas repair design holders do not have the same flexibility.</p>

comment	<p>146</p> <p style="text-align: right;">comment by: AIRBUS</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 14/37, GM No. 1 to 21.A.7(a)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>The paragraph 3) of this GM refers to "some exceptional cases". The use of 'exceptional' should be reviewed carefully as there are many cases where holders of a design approval ask the operator to contact them as there are no ICA defined (e.g. damages outside SRM/ASR limits). Instead of "exceptional" consider "specific cases" or "typical cases".</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p>
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response	<p>If there is no list of “exceptional cases”, then the CAMO will not consult the holders of a design approval.</p> <p>Not accepted The proposal does not clarify the situation.</p>
comment	<p>147 comment by: AIRBUS</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 14/37, GM No. 2 to 21.A.7(a)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>It is proposed to amend the paragraph 1) of this GM to read: “[...]”</p> <p>b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance (‘remove and replace’ or ‘discard’) and does not refer to the supplier’s data for necessary airworthiness actions, the aircraft’s airworthiness can be maintained by replacement action, and the supplier’s data are not part of the ICA for the aircraft. In such cases, the supplier’s data does not need to be referenced in the aircraft ICA. Example: if supplier’s data is required to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the aircraft, but may need to be considered as part of the complete set of ICA for the engine or propeller for example. However the removal/installation part of the procedure is part of the aircraft ICA. [...]”</p> <p>3. RATIONALE / REASON / JUSTIFICATION: By putting too much emphasis on aircraft ICA will make people forgetting that there are ICA for engines and propellers, for example.</p>
response	<p>Accepted The text has been amended accordingly.</p>
comment	<p>177 comment by: Gulfstream Aerospace Corporation</p> <p><u>AMC No. 2 to 21.A.7(a), Section 1), Second Paragraph:</u> “— supplier’s data related to instructions on how to accomplish the scheduled maintenance part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a functional check in a workshop. Example: fire extinguisher removal for hydrostatic test: this test is performed in a workshop in accordance with the supplier’s data instructions.”</p> <p>Gulfstream does not agree with this paragraph as written. It should come after the next paragraph. Only instructions incorporated by reference shall be the scope of this paragraph. Instructions in the AMM are inherently considered part of the ICA.</p>



Gulfstream proposes to clarify this paragraph to read: “— *supplier’s data related to instructions on how to accomplish the scheduled maintenance that are incorporated by reference as part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a functional check in a workshop. Example: fire extinguisher removal for hydrostatic test: this test is performed in a workshop in accordance with the supplier’s data instructions.*”

response

Not accepted

The example has been amended and your comment is not applicable to the new example.

comment

178

comment by: Gulfstream Aerospace Corporation

AMC No. 2 to 21.A.7(a), Section 2): “2) However, for the above cases, the aircraft level ICA can provide, as additional or optional maintenance information, the references of the supplier’s data even if it is not considered as part of the ICA. In such cases, it should be made clear that the supplier’s data is provided as additional or optional maintenance information and is not part of the aircraft ICA.”

Gulfstream does not agree with this paragraph as written. It is not clear if this paragraph refers to all cases of Section 1), or only 1) a. and/or 1) b.

Gulfstream proposes to clarify the paragraph to read: “2) *The aircraft level ICA can provide, as additional or optional maintenance information, the references of the supplier’s data even if it is not considered as part of the ICA. In such cases, it should be made clear that the supplier’s data is provided as additional or optional maintenance information and is not part of the aircraft ICA.*”

response

Not accepted

The main part of the sentence is the end which states that additional or optional maintenance is not part of the ICA.

comment

183

comment by: ARSA

GM No 2 to 21.A.7(a) Determination of which supplier’s data are part of ICA

Note 1: In this GM, the term ‘supplier’s data’ also applies to similar types of data when issued directly by the DAH (e.g. component maintenance manuals issued by the DAH).

Note 2: In this GM the term ‘supplier’s data’ has to be understood as supplier’s data (e.g. a full CMM) or part of a supplier’s data (e.g. part of a CMM).

Note 3: The link between the aircraft ICA and the engine /propeller CMM as detailed below is similar to the link between engine/propeller ICA and the CMM of equipment fitted to the engine/propeller.

1) When determining whether a supplier’s data is part of the ICA, the following should be considered:



— supplier's data related to the Airworthiness Limitations Section (ALS) of the ICA are part of the ICA. A typical CS-25 example is Critical Design Configuration Control Limitation (CDCCL) items that are included in CMMs.

— supplier's data related to instructions on how to accomplish the scheduled maintenance part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a functional check in a workshop. Example: fire extinguisher removal for hydrostatic test: this test is performed in a workshop in accordance with the supplier's data instructions.

-- supplier's data related to the performance of maintenance on an installed component in a workshop, including at a minimum, instructions for repairing or overhauling that article including methods for disassembly, cleaning, inspecting to wear tolerances established by the component manufacturer, repairing as necessary, re-assembling and inspecting and/or testing in accordance with the manufacturer's instructions or other approved data. The standard for determining the adequacy of component ICA information is whether a CAMO and/or a Part-145 organization would be required to possess and use that data in managing and performing maintenance on the supplier's article in the workshop. Any such supplier data will be considered ICA. It is not acceptable for a CMM to state that an article manufactured by it must be returned to it for maintenance.

— supplier's data related to ~~scheduled maintenance on the~~ a component should be endorsed by the DAH before becoming part of the aircraft ICA.

— ~~if the ICA is defined at aircraft level, the following principles apply to the other supplier's data that is not related to ALS and not related to scheduled maintenance:~~

~~a. if the supplier's data includes a maintenance instruction for an action identified in the aircraft level ICA, including an engine or propeller, this supplier's data should be referenced in the aircraft level ICA and should be made available like any other ICA. As an alternative to linking such supplier's data to the aircraft level ICA (e.g. with cross references), it is possible to include the relevant data directly into the aircraft ICA. In such a case, the supplier's data is not part of the aircraft ICA since the aircraft ICA contains all the required information. Another alternative is to develop the relevant data so it is included directly into the aircraft ICA.~~

~~b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance ('remove and replace' or 'discard') and does not refer to the supplier's data for necessary airworthiness actions, the aircraft's airworthiness can be maintained by replacement action, and the supplier's data are not part of the ICA for the aircraft. In such cases, the supplier's data does not need to be referenced in the aircraft ICA. Example: if supplier's data is required to perform off aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the aircraft. However the removal/installation part of the procedure is part of the aircraft ICA.~~

~~2) However, for the above cases, the aircraft level ICA can provide, as additional or optional maintenance information, the references of the supplier's data even if it is not considered as part of the ICA. In such cases, it should be made clear that the supplier's data is provided as additional or optional maintenance information and is not part of the aircraft ICA.~~



32) For the supplier's data identified as part of the ICA, the DAH should:

- identify the supplier's data that is part of the ICA; this can be achieved either by creating a listing or by any other acceptable means that allows which data is part of the ICA and which is not to be identified (refer to AMC 21.A.7(b));
- ensure the publication of the supplier's data just as for any other ICA;
- ensure the accuracy and the adequacy of the technical content of the supplier's data. (Refer to GM No.1 to 21.A.239 (a) 3.1.5).

AMC No. 3 to 21.A.7(a) DAH responsibility to check the Supplier's data.

The DAH may carry out a complete check of the data, or may choose to rely, in whole or in part, on the supplier's process. In this second case, the DAH will propose a means to validate the supplier's process. Supplier's data may also be issued by the supplier under contract or arrangement to the DAH that addresses the following:

- the accuracy and the adequacy of the technical documentation, which should be checked through verification processes (e.g. component workshop verification);
- evidence showing that workshop verification was performed should be kept by supplier and a clear statement should be given in the introduction to the supplier's data as a confirmation that component verification is complete;
- evidence that the supplier has taken into account all justified feedback and changes to data requested by any person required to use the ICA; typical examples would be the correction of reported errors, or mistakes.

In addition, some validation activities may be decided by the DAH, depending on the articles and the capability level of the supplier.

When a DAH takes credit for an ETSO authorisation for the certification of its product, then the validation of the suppliers' process is not needed.

GM No 3 to 21.A.7(a) Non-ICA supplier's data (e.g. Component Maintenance Manuals) referenced or published as additional information in the same repository as the ICA

~~Supplier's data, or parts of the supplier's data, which are not considered to be part of the ICA but are referenced as additional or optional maintenance information in the product level ICA,~~ may be issued by the supplier under contract or arrangement to the DAH using the methodology proposed in GM No.1 to 21.A.239 (a) 3.1.5.

response

Not accepted

These comments involve some commercial issues that maintenance organisations or CAMOs may have with the TC holders. These AMC and GM are developed for supporting the ICA establishment by the TC holders, which remain responsible for the ICA.

comment

186

comment by: *Textron Aviation*

Paragraphs 1) through 3) provides a good overview of that is and is not considered to be ICA documents but lacks clarification of day-to-day line-maintenance or on-aircraft maintenance verses bench/overhaul maintenance/ done away from the aircraft. Modern overhaul and repairs of engines, propellers and electronics are done at facilities with the proper equipment. Overhaul manuals are not typically needed for ICA. And because guidance and regulations are



	<p>not clear on this, suppliers often mix line-maintenance with overhaul procedures in the same publications. This creates a lot of confusion in the aviation industry.</p> <p>Suggest adding a section that describes the differences between ICA and specialized data needed for overhaul or repairs that must be done with special equipment or techniques. Keeping overhaul data and day-to-day maintenance or ICA in separate publications should be encouraged.</p>
response	<p>Not accepted</p> <p>It is up to the DAH to declare clearly what is ICA.</p>
comment	<p>187 comment by: <i>Textron Aviation</i></p> <p>Paragraph 3)b. <i>to ensure the publication of the supplier's data just as for any other ICA</i>; This seems reasonable at initial TC for an aircraft program, however on legacy aircraft programs, the original suppliers sometimes have changes in ownership/management that impact older supplier publications.</p> <p>Suggested change: Suppliers that produce ICA should have shared responsibilities to coordinate with the TC holders and regulatory agencies even on legacy programs.</p>
response	<p>Not accepted</p> <p>It is not expected that the ICA will be modified for legacy aircraft.</p>
comment	<p>191 comment by: <i>Antonio PARADIES</i></p> <p>EASA should clarify what is expected that DAH shall do to ensure that supplier's data, part of the ICA, is published and its content adequate.</p> <p>ATR considers that the supplier itself (even more if holder of a TC or ETSO) is responsible of the availability and content of that data.</p>
response	<p>Not accepted</p> <p>When the DAH lists all the ICA, it should also ensure that they are made available, including the supplier data declared as ICA.</p>
comment	<p>218 comment by: <i>Jeff Conner</i></p> <p>"3) The requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition."</p> <p>Comment: GE appreciates the clear recognition by EASA that the requirement for Instructions for Continued Airworthiness are "not intended to ensure that all products or articles may be restored to an airworthy condition."</p>
response	<p>Noted</p>
comment	<p>219 comment by: <i>Jeff Conner</i></p> <p>"b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance ('remove and replace' or 'discard') and does not refer to the supplier's data</p>



for necessary actions, the aircraft's airworthiness can be maintained by replacement action, and the supplier's data are not part of the ICA for the aircraft."

Comment: The replacement action discussion in this section applies to all products and components, not just aircraft. If the product or component level maintenance action does not refer to the supplier's data for necessary airworthiness actions, the product's/component's airworthiness can be maintained by replacement action, and the supplier's data are not part of the ICA for the product or component. Likewise, if supplier's data is required to perform off-product or off-component maintenance on an article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the product or component.

Recommendation: Modify the wording in this section to reflect the fact that the replacement action discussion applies to aircraft, **products and components**.

response

Not accepted

The principle described here is applicable to all products, but extending it would make the GM too complicated without really helping the reader/end user.

comment

220

comment by: *Jeff Conner*

"b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance ('remove and replace' or 'discard') and does not refer to the supplier's data for necessary actions, the aircraft's airworthiness can be maintained by replacement action, and the supplier's data are not part of the ICA for the aircraft."

Comment: Additional or optional maintenance information can also be included in product and component level ICA in addition to ICA for aircraft.

Recommendation: Modify the wording in this section to reflect the fact that the additional or optional maintenance information can be included in product and component level ICA without this information becoming part of the ICA.

response

Not accepted

The principle described here is applicable to all products, but extending it would make the GM too complicated without really helping the reader/end user.

comment

241

comment by: *Dowty Propellers*

ref 3.2.4 new GM No 1 to 21.A.7.a

"3) The requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition."

Comment: Dowty appreciates the clear recognition by EASA that the requirement for Instructions for Continued Airworthiness are "not intended to ensure that all products or articles may be restored to an airworthy condition."

response

Noted



comment	<p data-bbox="359 241 406 271">243</p> <p data-bbox="1093 241 1465 271" style="text-align: right;">comment by: <i>Dowty Propellers</i></p> <p data-bbox="359 300 710 329">ref New GM no 2 to 21.A.7.a:</p> <p data-bbox="359 369 1473 510">"b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance ('remove and replace' or 'discard') and does not refer to the supplier's data for necessary actions, the aircraft's airworthiness can be maintained by replacement action, and the supplier's data are not part of the ICA for the aircraft."</p> <p data-bbox="359 551 1473 831">Comment: The replacement action discussion in this section applies to all products and components, not just aircraft. If the product or component level maintenance action and does not refer to the supplier's data for necessary airworthiness actions, the product's/component's airworthiness can be maintained by replacement action, and the supplier's data are not part of the ICA for the product or component. Likewise, if supplier's data is required to perform off-product or off-component maintenance on an article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the product or component.</p> <p data-bbox="359 871 1473 938">Recommendation: Modify the wording in this section to reflect the fact that the replacement action discussion applies to aircraft, products and components.</p> <p data-bbox="359 978 1473 1046">Comment: Additional or optional maintenance information can also be included in product and component level ICA in addition to ICA for aircraft.</p> <p data-bbox="359 1086 1473 1187">Recommendation: Modify the wording in this section to reflect the fact that the additional or optional maintenance information can be included in product and component level ICA without this information becoming part of the ICA.</p>
response	<p data-bbox="359 1216 826 1245">Both recommendations: Not accepted.</p> <p data-bbox="359 1256 1473 1323">Note 3 at the beginning of this GM indicates that the same rationale is applicable to engines and propellers.</p>
comment	<p data-bbox="359 1402 406 1431">256</p> <p data-bbox="882 1402 1465 1431" style="text-align: right;">comment by: <i>Gulfstream Aerospace Corporation</i></p> <p data-bbox="359 1458 1473 1559"><u>AMC No. 2 to 21.A.7(a), Section 1), Third Paragraph:</u> <i>"— supplier's data related to scheduled maintenance on the component should be endorsed by the DAH before becoming part of the aircraft ICA."</i></p> <p data-bbox="359 1599 1473 1771">Gulfstream does not agree with this paragraph as written. The DAH will evaluate if suppliers' scheduled maintenance recommendations are adequate to address the identified failure modes of the component. This paragraph should come before the preceding paragraph. This paragraph deals with 'what' and 'when' recommendations, which shall be followed by 'how' statements (the procedure).</p> <p data-bbox="359 1812 1473 1912">Gulfstream also proposes this paragraph to read: <i>"— supplier's data containing scheduled maintenance recommendations (i.e. task scope and interval) shall be considered by the DAH if adequate and accurate to be included as part of the aircraft ICA."</i></p>
response	<p data-bbox="359 1946 576 1975">Partially accepted</p> <p data-bbox="359 1986 970 2016">The revised text covers the intent of the comment.</p>



comment

260

comment by: HEICO Aerospace

HEICO Comment 3 – Remove and Replace

Comment: As stated in paragraph 3 of the proposed **GM No 1 to 21.A.7(a)** “The requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be removed from service, and restoration may not be reasonably achievable.” These articles for which “restoration may not be reasonably achievable” (have no approved maintenance instructions to return the article to an airworthy condition) are typical remove and install (replace with new) articles.

Remove and install instructions should not be the only ICA for articles for which restoration MAY be reasonably achievable.

Suggested Resolutions: Revise paragraph 1)b. to read: ..

For articles for which restoration may not be reasonably achievable, an aircraft level maintenance action is a replacement action of ‘remove and replace’ or ‘discard’ is sufficient ICA for the aircraft or component.

Justification: It was never intended, (nor a safe or acceptable practice for an airline operator), that remove and reinstall/replace items apply to major components throughout the aircraft. It is unrealistic and impractical for an operator’s required maintenance action to be replacement action for an engine and other major aircraft systems. Remove and replace items identified in the aircraft level ICA are intended to be expendables and other "throw away" items. i.e. light bulbs, filters, o-rings, certain nuts & bolts, washers, rivets etc.. These items, where there are no repair procedures or other maintenance instructions, are true "remove and replace" items. For these items, the aircraft would be properly maintained by removing and replacing these items.

However, articles and components where maintenance instructions were developed, approved and are in use, must be part of the complete set of ICA.

response

Not accepted

The proposed text goes far beyond the scope of what is ICA.

comment

261

comment by: HEICO Aerospace

HEICO Comment 4 –Off Aircraft Maintenance Instructions/Supplier Data

Comment: Clarify/revise page 14 and 15, para 1)b. and 2) to clearly state that when supplier data is the source of maintenance instructions required to restore the part, component or product, to an airworthy condition, then that set of instructions are part of ICA. Supplier’s data (i.e.CMMs) required to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), is needed by the owner/operator and their maintenance providers in order to restore the aircraft and articles to an airworthy condition.

Suggested Resolutions: Revise paragraphs 1), 2) and 3) as follows: **additions in red**, ~~deletions struck through~~.



1) When determining whether a supplier's data is part of the ICA, the following should be considered:

— supplier's data related to the Airworthiness Limitations Section (ALS) of the ICA are part of the ICA. A typical CS-25 example is Critical Design Configuration Control Limitation (CDCCL) items that are included in CMMs.

— supplier's data related to instructions on how to accomplish the scheduled maintenance part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a functional check in a workshop. Example: fire extinguisher removal for hydrostatic test: this test is performed in a workshop in accordance with the supplier's data instructions.

— supplier's data related to **required** scheduled maintenance on the **aircraft** component should be endorsed by the DAH (**TC Holder**) before becoming part of the aircraft ICA **and then referenced within the ICA.**

— if the ICA is defined at aircraft level, the following principles apply to the other supplier's data that is not related to ALS and not related to scheduled maintenance:

a. if the supplier's data includes a maintenance instruction for an action identified in the aircraft-level ICA, including an engine or propeller, this supplier's data ~~should~~ **are to** be referenced in the aircraft level ICA and ~~should be~~ made available like any other ICA.

As an alternative to linking such supplier's data to the aircraft level ICA (e.g. with cross references), it is possible to include the relevant data directly into the aircraft ICA. ~~In such a case, the supplier's data is not part of the aircraft ICA since the aircraft ICA contains all the required information. Another alternative is to develop the relevant data so it is included directly into the aircraft ICA.~~

b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance ('remove and replace' or 'discard') **and there is no reference to supplier maintenance instructions required to perform off-aircraft maintenance** ~~and does not refer to the supplier's data~~ for necessary airworthiness actions, the aircraft's airworthiness can be maintained by replacement action **only (No restoration or repair can be performed on the part or appliance).** ~~and the supplier's data are not part of the ICA for the aircraft. In such cases, the supplier's data does not need to be referenced in the aircraft ICA.~~ Example: **However**, if supplier's data is **required** to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data **IS** ~~is not~~ considered as part of the complete set of **aircraft ICA as it is needed to restore the off-aircraft article and the aircraft to an airworthy condition.** ~~for the aircraft. However the removal/installation part of the procedure is part of the aircraft ICA.~~

2) ~~However, for the above cases, the aircraft level ICA can provide, as additional or optional maintenance information, the references of the supplier's data even if it is not considered as part of the ICA. In such cases, it should be made clear that the supplier's data is provided as additional or optional maintenance information and is not part of the aircraft ICA.~~

3) For the supplier's data identified as part of the ICA, the DAH should:

a. identify the supplier's data that is part of the ICA; this can be achieved either by creating a **reference** listing or by any other acceptable means that allows **and clearly identifies** ~~which the suppliers~~ data is **as** part of the ICA ~~and which is not to be identified~~ (refer to AMC 21.A.7(b));

b. ensure the publication **and proper distribution** of the supplier's data just as for any other ICA;

c. ensure the accuracy and the adequacy of the technical content of the supplier's data. (Refer to GM No.1 to 21.A.239 (a) 3.1.5).



	<p><u>Justification:</u> Articles and components where maintenance instructions were developed, approved and are in use, must be part of the complete set of ICA. For articles or components that have been removed from the aircraft and restoration may be reasonably achieved, a maintenance provider (Part 145) must work to approved maintenance instructions. Therefore, in order to return an article or component to service, the article or component must be maintained in accordance with a set of approved instructions. These off-aircraft maintenance instructions are used by the maintenance provider (Part 145) to return the article or component to an airworthy condition. Therefore these instructions are Instructions for Continued Airworthiness.</p>
response	<p>Not accepted The proposed text goes far beyond the scope of what is ICA.</p>
comment	<p>268 comment by: <i>Europe Air Sports</i> GM No. 1 to 21.A.7 (a) (2) EAS would like a clearer answer on who lastly decides on the final contents of ICA. The note at the end of the paragraph does not help nor does it bring clarity.</p>
response	<p>Noted The primary responsibility of establishing the final ICA contents is for the TC holder under the oversight of EASA.</p>
comment	<p>271 comment by: <i>THALES AVS FRANCE SAS</i> GM N°2 to 21.A.7(a) Proposed modification Add the following Note 4 in the GM No2 to 21.A.7(a) : Furnishing of supplier's data determined as part of the ICA may be subject to a prior licence agreement with the supplier Rationale To protect intellectual property rights of the supplier, it must be explicitly mentioned that supplier's data determined as part of the ICA may be subject to a prior licence agreement.</p>
response	<p>Not accepted It is up to the TC holder to fulfil its responsibility for publishing ICA: such a licence agreement is part of the relation between the TC holder and the supplier.</p>
comment	<p>285 comment by: <i>FNAM</i> ISSUE.1 - Online and digital ICAs Idem Comment 276</p>
response	<p>Not accepted</p>



Part 21 deals with the obligations of design holders but not with commercial aspects.

comment	286	comment by: <i>FNAM</i>
	<p>GM No 2 PROPOSAL 1</p> <p>FNAM and GIPAG suggest to add the following note: “It is to be noted that any data not issued in accordance with Part-21 or not cross-referenced in a data issued in accordance with Part-21 is not eligible to be considered as “supplier’s data” in this GM”.data” in this GM”.</p>	
response	<p>Not accepted</p> <p>Most of the CMMs are not issued in accordance with Part 21 and such a statement would be counterproductive.</p>	

comment	287	comment by: <i>FNAM</i>
	<p>GM No 2 PROPOSAL 2</p> <p>In §2, it must be clear that in case the aircraft level ICAs provide references to supplier’s data not considered as part of the ICAs, then, those references must be indicated in a separated document issued by the DAH not containing 21.A.265(h) statement.</p>	
response	<p>Not accepted</p> <p>The statement from 21.A.265 is not kept after the NPA.</p>	

comment	304	comment by: <i>Laurent Lalaque</i>
	<p><u>Parts Catalogues</u> are required to be ICA. These documents are providing a list of parts that can be procured to customers for maintenance, along with some logistical information. The use of Parts Catalogues as a configuration management tools by the airlines or maintenance organisations is not recommended because replacement part’s installation relies on the actual engine configuration. Only airlines or maintenance organisations can define the airworthiness statement of actual engine configuration based on the actual Service Bulletins implementation.</p> <p><u>Tooling Manuals</u> are required to be ICA. These tools are means to ensure a maintenance function, but tool by itself doesn’t belong to the product’s Type design definition. Any alternative tool developed by the airlines or the maintenance organisations and approved under Part-145 organisation are acceptable to ensure the ICA functions.</p> <p>SafranHE recommends to suppress Parts Catalogues and Tooling Manuals from the list of ICA.</p> <p><u>Proposed text:</u></p> <p>2) The data containing the instructions itself is the ICA, not any particular type of publication. The DAH can decide – within the framework provided by point 21.A.7 and its acceptable means of compliance and guidance material – to publish the ICA in the most suitable location within all the information published to support the airworthiness of the aircraft. Publications typically created by DAHs (e.g. for the demonstration of compliance with a certification basis established on the basis of CS-25), and which may therefore include ICA, consist of:</p> <p>— ...</p> <p>— Parts Catalogues;</p>	



	<p>— Tooling Manuals; — ...</p>
response	<p>Not accepted This list is just an example and cannot be exhaustive.</p>
comment	<p>318 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>In GM No. 1 to 21.A.7(a) following publications as specified in related Industry standards (e.g. ATA iSpec2200) have to be added:</p> <ul style="list-style-type: none"> • Component Maintenance Manual (e.g. to be in line with GM No 2 to 21.A.7(a)) • Standard Practices Manual/Repair Manual • Service Bulletin/Service (Information) Letter (e.g. to be in line with GM No 2 to 21.A.7(b)) <p>and to be deleted:</p> <ul style="list-style-type: none"> • Electrical Load Analysis to be considered design data • Weight and Balance Manual to be considered Instructions for Operation.
response	<p>Not accepted This list is just an example and cannot be exhaustive.</p>
comment	<p>319 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>In GM No 2 to 21.A.7(a) since supplier's data have to be considered Intellectual Property rights this has to be added in Note 2) to assure sufficient cooperation between DAH and supplier.</p> <p>Proposed text: Note 2: In this GM the term 'supplier's data' has to be understood as supplier's data (e.g. a full CMM) or part of a supplier's data (e.g. part of a CMM), <i>provided to the DAA/DAH under contract or arrangement.</i></p>
response	<p>Not accepted It is up to the TC holder to fulfil its responsibility for publishing ICA: such a licence agreement is part of the relation between the TC holder and the supplier.</p>
comment	<p>320 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>In GM No 2 to 21.A.7(a) Note 3 "part or appliance" are missing and to be added for a complete and clear scope of supplier's data to be considered.</p> <p>In addition, related terms in this NPA are not consistently used and should be appropriately specified to delete any ambiguities, e.g. article, ETSO article, part or appliance, component, equipment.</p> <p>Proposed text: Note 3: The link between the aircraft ICA and the engine /propeller/<i>part or appliance</i> CMM as detailed below is similar to the link between engine/propeller/<i>part or appliance</i> ICA and the CMM of equipment fitted to the engine/propeller/<i>part or appliance</i>.</p>
response	<p>Not accepted ICA are required for products only (aircraft, engines and propellers).</p>



comment	<p>321 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>In GM No 2 to 21.A.7(a) the wording “endorsed” is unclear and should be in line with AMC No 2 to 21.A.7(a) point 1). Thus replace “endorsed” by “evaluated appropriately”.</p> <p>Since supplier’s data have to be considered Intellectual Property rights this has to be added in point 3) to assure sufficient cooperation between DAH and supplier.</p> <p>Proposed text:</p> <p>1) ... supplier’s data related to scheduled maintenance on the component should be endorsed <i>evaluated appropriately</i> by the DAH before becoming part of the aircraft ICA.</p> <p>2) For the supplier’s data identified as part of the ICA, the DAH should <i>under contract or arrangement with the supplier</i>:</p> <p>...</p>
response	<p>Not accepted</p> <p>It is up to the TC holder to fulfil its responsibility for publishing ICA: such a licence agreement is part of the relation between the TC holder and the supplier.</p>
comment	<p>322 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>The example described in GM No 2 to 21.A.7(a) 1) b. has to be deleted since the location where maintenance is performed (i.e. workshop, off-aircraft maintenance) cannot be criteria for determining Non-ICA.</p> <p>In addition. this is in contradiction to the example before describing the fire extinguisher removal for hydrostatic test but specified as ICA.</p> <p>This will lead to confusion and have an adverse effect on continued airworthiness/safety, due to ambiguities in criteria for ICA and Non-ICA.</p> <p>Thus, reference to Part 145 should be included to clarify the ICA data and status in case of off-aircraft maintenance.</p> <p>In general, the link to Part 145 concerning 145.A.45 Maintenance data and 145.A.42 Acceptance of components is missing and should be clearly addressed in any update to Part 21 for ICA.</p> <p>Proposed text:</p> <p>b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance (‘remove and replace’ or ‘discard’) and does not refer to the supplier’s data for necessary airworthiness actions, the aircraft’s airworthiness can be maintained by replacement action, <i>i.e. another new or overhauled component is replacing the removed component</i>, and the supplier’s data are not part of the ICA for the aircraft. In such cases, the supplier’s data does not need to be referenced in the aircraft ICA. <i>Example: if supplier’s data is required to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the aircraft. However the removal/installation part of the procedure is part of the aircraft ICA. Note: In this case the supplier’s data are part of the ICA for the aircraft if the component requires a certificate of release to service “EASA Form 1” for installation on the aircraft as required in Part 145.</i></p>
response	<p>Partially accepted</p> <p>The example could be misleading and has been replaced.</p>



comment	<p>323 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>In AMC No 3 to 21.A.7(a) the DAH should generally rely on ETSO authorisations and other national TSOs if accepted by EASA due to bilateral agreements.</p> <p>Proposed text: When a DAH takes credit for In case of an ETSO authorisation for the certification of its product, then the validation of the suppliers' process is not needed. <i>This is also valid for other national TSO authorisations accepted by EASA as stipulated in related Bilateral Agreements, e.g. FAA TSOs.</i></p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>324 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>In GM No 3 to 21.A.7(a) delete from Title "(e.g. Component Maintenance Manual)" since this wrongly implies that CMMs are generally Non-ICAs.</p> <p>The involvement of the DAH should be clearly specified depending on supplier's data are ICA or Non-ICA. In case of Non-ICA, i.e. additional or optional maintenance information, there should be no further involvement of the DAH since this leads to additional high burden and costs for the DAH without improving continued airworthiness/safety.</p> <p>Proposed text: GM No 3 to 21.A.7(a) Non-ICA supplier's data (e.g. Component Maintenance Manuals) referenced or published as additional information in the same repository as the ICA Supplier's data, or parts of the supplier's data, which are not considered to be part of the ICA but are referenced as additional or optional maintenance information in the product level ICA, may be are issued by the supplier under contract or arrangement to the DAH using the methodology proposed in GM No.1 to 21.A.239 (a) 3.1.5.</p>
response	<p>Not accepted</p> <p>The proposal would diminish the DAH's responsibility.</p>
comment	<p>359 comment by: FAA</p> <p>1. This would appear to create conflict between these content details, in EASA Part-21, and the requirements in the certification standards. Also, placement in EASA Part-21 makes applicability to the various products addressed by the certification standards debatable. Recommend that these requirements be verified as universally compatible, or better, place these details in the individual certification specifications as appropriate.</p> <p>In GM No 1:</p> <p>2. Are inspection and restoration instructions, that are developed on a case-by-case basis, expected to be added to the Instructions for Continued Airworthiness (ICA) during the change process?</p> <p>3. The provisions for referring "exceptional cases" to the design approval holder are concerning because of the difficulty in establishing objective and complete criteria for what</p>



not to include in the ICA. If this provision is adopted more detailed guidance should be developed.

4. In a practical sense there is a need for a number of different documents, with different purposes, information, and users. Care must be taken not to rely on the name of the document type to determine whether it is ICA or not. The content of the document must determine its inclusion.

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5. Clarify whether this section pertains to repairs and repair manuals. The answer may lead to further comments.

6. Disagree with the statement that, "The requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition." It is contrary to FAA Order 8110.54A. The purpose of ICA is keeping a product or article in an airworthy condition.

7. Disagree with the statement that "specific instructions... will only be developed and provided on a case-by-case basis". While this statement may be applicable to aircraft, it is not applicable to engines and propellers. Engine and propeller repairs are ICA and must be made available via the ICA.

In GM No 2:

8. This process appears to be a piecemeal approach to maintaining the airworthiness of a product rather than the holistic approach in the certification standards and 14 CFR airworthiness standards. Of particular concern is the carving out of portions of maintenance instructions as ICA, and other portions as non-ICA. It might be better for the standards of the certification specifications to be maintained; Reference CS-25 H25.1(b), H25.3(b) and CS-E 25(5).

9. Regardless of where maintenance is performed (on the aircraft, in a specialized shop, or elsewhere) "proper" maintenance is essential to the safety of the aircraft, and proper maintenance relies on the availability of proper information (methods, techniques, and practices or specific instructions) for important aspects of the aircraft. The "supplier's data" considerations criteria seem to be obviated where 1) b. refers to "remove and replace" or "discard" as an appropriate corrective action for what could be most situations.

10. Agree, stating that CMMs are ICA, and they must be made available. However, CMMs not listed in higher level ICA are not subject to rule's distribution and availability requirements.

11. A Significant Standards Difference. Supplier's data, when referenced in a higher level ICA, is subject to the distribution and availability requirements.

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12. Clarify that CMMs are line replaceable units (LRUs).

In GM No 3:

13. Would non-ICA information be valid to use?

14. GM No 4 could not be found.



response Not accepted

1. This AMC should be considered as guidance which is applicable to all products.
2. Only if the DAH considers that it is ICA.
3. It is only when not all cases can be foreseen in the ICA.
4. It is up to the DAH to establish the list of ICA.
5. This section pertains to ICA and will be applicable to repairs and repair manuals if these documents are declared as ICA by the DAH.
6. ICA cannot cover all cases, and some repairs definitely fall under the other cases.
7. There is a disagreement between the FAA and EASA on the scope of ICA.
8. It is up to the DAH to publish ICA.
9. Most of the shop activities cannot be covered by the aircraft ICA.
10. Not all CMMs are ICA.
11. Clarified by new 'Note 4'.

comment 376 comment by: *Embraer S.A.*

In item 1 of this GM, the NPA states that the supplier's data related to scheduled maintenance on the component should be endorsed by the DAH before becoming part of the aircraft ICA. However, in the AMC No. 3 to 21.A.7(a), the NPA says that the DAH may carry out a complete check of the data, or may choose to rely, in whole or in part, on the supplier's process. In this second case, the DAH will propose a means to validate the supplier's process.

Therefore, the intention of EASA is not clear: while the agency demands the endorsement of all supplier's data BEFORE it become part of aircraft ICA, it also states that DAH can rely on the supplier process (i.e. instead to check each data). The information is contradictory and Embraer believes it is reasonable to rely on monitored supplier processes and not to require specific DAH approval.

response Not accepted

The DAH should endorse the data when it is considered part of the ICA; however, how the DAH performs its duty may depend on the supplier process.

comment 384 comment by: *Pratt & Whitney Canada*

Regarding:
GM No. 1 to 21.A.7(a) Scope of ICA para (2)
"Service Bulletins"

Comment:
The FAA & TCCA are clear that SBs are not ICAs.

response Accepted

Service bulletins (SBs) are generally optional and are not considered as ICA.

comment 385 comment by: *Pratt & Whitney Canada*

Regarding:



	GM No. 2 to 21.A.7(a) <i>"Determination of which supplier's data are part of ICA"</i> Comment: A note should be added to this section stating: <i>"If the supplier is also a DAH, for instance an engine or propeller manufacturer, then ICAs for these items will be made available by virtue of DAH obligations as Type Certificate Holders and need not be included in the aircraft ICAs."</i>
response	Accepted Note added to the GM.
comment	386 comment by: Pratt & Whitney Canada Regarding: GM No. 2 to 21.A.7(a) <i>"Note 3: The link between the aircraft ICA and the engine /propeller CMM as detailed below is similar to the link between engine/propeller ICA and the CMM of equipment fitted to the engine/propeller."</i> Comment: Not an entirely accurate analogy. Engine and propellers are type 1 TCs. Suppliers to engines and propellers have no Certificate holder status. Recommend rewording.
response	Not accepted This note relates to TC ICA which may include or may refer to supplier data: it is similar between aircraft, engines and propellers.
comment	387 comment by: Pratt & Whitney Canada Regarding: GM No. 2 to 21.A.7(a) - (1)(a) <i>"the supplier's data is not part of the aircraft ICA since the aircraft ICA contains all the required information."</i> Comment: This is somewhat confusing and circular. Recommend rewording to clarify.
response	Not accepted In this case all the necessary data is included in the TC holder's ICA and the supplier data document is not part of the TC holder's ICA.
comment	388 comment by: Pratt & Whitney Canada Regarding: GM No. 2 to 21.A.7(a) - (1)(b) <i>"if supplier's data is required to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the aircraft. However the removal/installation part of the procedure is part of the aircraft ICA."</i>



Comment:
 This is good, but confusing and seems contrary to the text regarding shop actions for MRBR, i.e. the text in the preceding paragraphs regarding the example of the fire extinguisher. Recommend reviewing and rewording this section for clarity & consistency.

response Not accepted
 The example has been modified to provide for more clarity.

comment 389 comment by: Pratt & Whitney Canada

Regarding:
 GM No. 2 to 21.A.7(a) - (3)
 “For the supplier’s data identified as part of the ICA, the DAH should...”

Comment:
 Which DAH? Per the guidance in previous paragraphs, if everything rises to aircraft level DAH, then the airframer is in complete control of the content and publishing of, e.g. engine ICAs, including, per EASA guidance, SBs. Is that what was intended?
 Recommend reviewing and rewording this section for clarity & consistency.

response Not accepted
 The DAH is the one that is responsible for its ICA: for the engine, the DAH may elect to cover with its ICA the necessary data for the engine removal or only to refer to the engine ICA.

comment 394 comment by: IATA

IATA Comments

Existing Text	Comment / Proposed Text	Justification
GM No 1 to 21.A.7(a) 2 “...Note: This is only an example of the publications that may contain ICA according to CS-25; this list is not supposed to be exhaustive, nor is it a minimum list of ICA.”	A more accurate wording would be “...Note: This is only an example of the publications that may contain ICA according to CS-25; this list is not supposed to be exhaustive, nor is it a minimum list of ICA hosting publications. ”	The list includes publications that may host or not ICAs and not all of them are necessarily ICAs in their entirety – e.g. a Service Bulletin, based on its declared scope, may be or not an ICA.

response Partially accepted
 Service bulletins (SBs) are removed from the list, which remains an example only.

comment 395 comment by: IATA

IATA Comments



Existing Text	Comment / Proposed Text	Justification
GM No 1 to 21.A.7(a) 3)	The following paragraph is proposed for addition at the end of the existing text in GM No 1 to 21.A.7(a) 3): “...Once developed following the cases mentioned above in the last two paragraphs, the ICA should be made available to the owner and/or operator of the product concerned and, on request, to any other person required to comply with the ICA (see 21.A.7 (b) and GM No 1 to 21.A.7 (b)).”	The proposed text would ensure the required availability of ICA necessary to their safe implementation by any party concerned and required to do so.

response Not accepted
This obligation for the DAH is covered in 21.A.7(d).

comment 396 comment by: IATA

IATA Comments

Existing Text	Comment / Proposed Text	Justification
GM No 2 to 21.A.7(a) 1) states that: “... supplier’s data related to scheduled maintenance on the component should be endorsed by the DAH before becoming part of the aircraft ICA ...”	What type of endorsement would be required by the Agency? Inclusion of a reference to that supplier data in a product ICA would suffice?	The answer to the comment is important to the operator regarding the responsibility of the product DAH in identification of supplier ICA, its validation and its availability.

response Partially accepted
The endorsement by the DAH will be formalised by the inclusion of the supplier data in the list of ICA.

comment 397 comment by: IATA

IATA Comments

Existing Text	Comment / Proposed Text	Justification
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<p>GM No 2 to 21.A.7(a) 1) a. states that: "...As an alternative to linking such supplier's data to the aircraft level ICA (e.g. with cross references), it is possible to include the relevant data directly into the aircraft ICA. In such a case, the supplier's data is not part of the aircraft ICA since the aircraft ICA contains all the required information. Another alternative is to develop the relevant data so it is included directly into the aircraft ICA."</p>	<p>We propose the deletion of the last sentence. The text would state: "...As an alternative to linking such supplier's data to the aircraft level ICA (e.g. with cross references), it is possible to include the relevant data directly into the aircraft ICA. In such a case, the supplier's data is not part of the aircraft ICA since the aircraft ICA contains all the required information."</p>	<p>We do not see the difference between the presently mentioned (highlighted) alternatives.</p>
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response Accepted
Last sentence removed.

comment 398

comment by: IATA

IATA Comments

Existing Text	Comment / Proposed Text	Justification
<p>GM No 1 to 21.A.7(a) 3) "The requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be removed from service, and restoration may not be reasonably achievable..."</p>	<p>There should be appropriate wording to prevent the misinterpretation and potential abuse of this statement by not declaring the data as ICA when in fact it is an ICA. We suggest linking (at least) the "reasonably achievable" qualifier to its indirect recognition (or lack thereof) in the MRBR. The text we suggest is: "The requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be removed from service, and restoration may not be reasonably achievable. Notwithstanding the above, the</p>	<p>The proposed text would provide a minimum assurance that the TCH of a product, for which an MRB process (with its resulting MRBR) exists, would be prevented from abusing this provision by not formally recognizing as ICA the data which is necessary as a "common/standard industry practice" in maintaining the airworthy condition of the product.</p>



	existence of an MRBR task other than “Discard (DS or DIS)” should be a clear indication of the necessity/obligation to produce a corresponding ICA...”.	
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response

Partially accepted

If a discard task is derived from a process like MRB, this should be based on an evaluation that an item with a wear-out pattern cannot be restored technically or economically. If different tasks like inspections/checks are selected, the corresponding accomplishment procedures need to be produced as part of the ICA.

However, from that it cannot be concluded that a product or article can be always restored (by restoration) to an airworthy condition. As a result of the inspections/checks, the removal of the product or article from service may be required.

comment

399 comment by: IATA

IATA Comments

Existing Text	Comment / Proposed Text	Justification
GM No 1 to 21.A.7(a) 3) and GM No 2 to 21.A.7(a) 1) b.	There is a contradiction between the two provisions. GM No 1 to 21.A.7(a) 3) states: “...requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be removed from service, and restoration may not be reasonably achievable...” while GM No 2 to 21.A.7(a) 1) b. states: “... if supplier’s data is required to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the aircraft...”	If the instructions for maintenance action are not intended to restoring the airworthy condition of the article then, and only then, those instructions are not ICAs. This rationale applies for example in the case of an engine wash (intended for ITT/EGT margin recovery) or discard of expendables like light bulbs, o-rings, bolts, washers etc. If maintenance instructions which guarantee the airworthy condition of an article have been developed but would not be recognized/identified as ICA and made available as such, we would encourage the use of unsafe maintenance practices with dire consequence on aircraft safety.



	<p>We consider that any maintenance action instruction (on or off aircraft) meant to restore the airworthy condition of an article is an ICA and should be identified as such and included in the complete set of ICAs. The simple existence of such maintenance action instructions indicates that restoration of that article may be reasonably achieved.</p>	
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response Not accepted
Workshop maintenance is not within the ICA scope.

comment 400 comment by: IATA

IATA Comments

Existing Text	Comment / Proposed Text	Justification
<p>GM No 2 to 21.A.7(a) 3) a. states: “...identify the supplier’s data that is part of the ICA; this can be achieved either by creating a listing or by any other acceptable means that allows which data is part of the ICA and which is not to be identified (refer to AMC 21.A.7(b));”</p>	<p>We consider that the intent is to ensure identification of all (complete set) of ICA and not mention other data. Thus we propose to delete some wording and state only that: “identify the supplier’s data that is part of the ICA; this can be achieved either by creating a listing or by any other acceptable means that allows to identify which data is part of the ICA and which is not (refer to AMC 21.A.7(b));</p>	<p>Reworded for increase in clarity by removing no value adding text.</p>

response Accepted
The text has been amended accordingly.

comment 414 comment by: Rolls-Royce plc



Note 3 refers to the "engine CMM". Typically this term is not used for engines. The engine manufacturer typically provides input for sections of the aircraft maintenance manual, and off-wing manuals of various sorts.

Proposed Solution: Suggest using "the engine manual" "shop manual" or similar term.

Note 3 needs clarification. We believe it is intended to establish that the principles in items 1) and 2) of this section relate to other products in addition to aircraft. We agree with this , but It would be better if the important principles related in item 1) and 2) could be made generic, rather than identified for the aircraft alone.

Proposed Solution: Reword to make the sections generic to products, rather than just aircraft, to reinforce note 3).

The text under GM No 2 to 21.A.7(a) '... link between the aircraft ICA and the engine/propeller CMM...' should be clarified as both levels may have under DOA there own ICAs and would or would not approval statements of both levels engine and a/c? Are two DOA statements expected? How will is work for European aircraft with foreign engine type design under validation principles and hence no DOA statements on engine level for ICA?

Proposed Solution: Clarification text needed.

response

Not accepted
 The principle described here is applicable to all products, but extending it would make the GM too complicated without really helping the reader/end user.
 Furthermore, the statement related to the ICA is not kept after the NPA.

comment

426 comment by: MITSUBISHI AIRCRAFT CORPORATION

Page	Section	Reference	Comment/Reason for Change
13	3.2.4	GM No 1 to 21.A.7 (a) (2)	Extended range operations shall be referred as "when applicable". In addition, reference to the ETOPS overall rule shall be made.

response

Not accepted
 This list is only an example and is not exhaustive.

comment

427 comment by: MITSUBISHI AIRCRAFT CORPORATION

Page	Section	Reference	Comment/Reason for Change
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14	3.2.4	GM No 2 to 21.A.7 (a)	Clear guideline shall be provided. In the sample case, if the technical requirement is FNC, it should be clearly stated. RST task requirement does not give information that this task requirement is for the pressure vessel, not for aircraft.
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response Partially accepted
The example has been replaced for more clarity.

comment 429 comment by: MITSUBISHI AIRCRAFT CORPORATION

Page	Section	Reference	Comment/Reason for Change
14	3.2.4	GM No 2 to 21.A7 (a) Note 3	Note 3 is unclear vs linked of engine/propeller ICA and CMM of equipment fitted to engine/propeller.

response Not accepted
The aim is to indicate that engine data for the aircraft can be compared with equipment data for the engine.

comment 430 comment by: MITSUBISHI AIRCRAFT CORPORATION

Page	Section	Reference	Comment/Reason for Change
14	3.2.4	GM No 2 to 21.A7 (a) (1)	The full paragraph is really confusing as engine has its own maintenance program which triggers need for shop visit and thus removal from the A/C. It is un practical to take this within aircraft ICA bearing in mind that engine has a TC and ICA.

response Not accepted
It is not expected that the full engine ICA are part of the aircraft ICA, but only the relevant part when it is evaluated as necessary by the aircraft DAH.

comment 436 comment by: Dassault-Aviation

§ 3.2 page 14

Text:

GM No1 to 21.A.7 (a) Determination of which supplier data are part of ICA. Point1/supplier’s data related to the Airworthiness Limitations Section (ALS) of the ICA are part of the ICA. A typical CS-25 example is Critical Design Configuration Control Limitation



(CDCCL) items that are included in CMMs. Point 2/ supplier's data related to instructions on how to accomplish the scheduled maintenance part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a functional check in a workshop. Example: fire extinguisher removal for hydrostatic test: this test is performed in a workshop in accordance with the supplier's data instructions.

Comment:

Point1: DA agree with Point1: supplier's data related to the Airworthiness Limitations Section (ALS) of the ICA are part of the aircraft ICA.

Point2: this point is out of the scope of ALS, therefore there is less criticality with regard to the airworthiness.

As a consequence DA suggest to limit the part of data considered as DAH ICA to the supplier's data "intent". This "intent" is based on MSG3 or any other scheduled maintenance requirement and will be clearly identified in the DAH ICA .

DA suggest to reword Point 2 as follow: "Intent" of the instruction to accomplish is part of the ICA, supplier's data related to instruction on how to accomplish the scheduled maintenance part of the aircraft ICA is not part of the aircraft ICA.

response

Partially accepted

The replacement of the example should now clarify the intent.

comment

448

comment by: DGAC France

2.1- DGAC France suggest to add the following note: *"It is to be noted that any data not issued in accordance with Part-21 or not cross-referenced in a data issued in accordance with Part-21 is not eligible to be considered as "supplier's data" in this GM"*.

2.2- In §2, it must be clear that in case the aircraft level ICAs provide references to supplier's data not considered as part of the ICAs, then, those references must be indicated in a separated document issued by the DAH not containing 21.A.265(h) statement.

response

Not accepted

Supplier data is not limited to ICA and it would be counterproductive to add such a statement. Furthermore, the statement initially proposed by 21.A.265(h) is not kept after the NPA.

comment

460

comment by: FedEx Express

To prevent any unnecessary removal of components from service, specific deterioration limits should be provided in the ICA. This will prevent any preventable costs associated with scrapping/purchasing a new component versus restoring it to an airworthy condition.

Section 3.2.4 "GM No 1 to 21.A.7(a) Scope of ICA, their publication format and typical ICA data", FedEx would recommend the following language added into sub paragraph 3):

The DAH should provide specific limitations on level of deterioration in ICA. Removing a product or an article from service should only be done if the deterioration limits are exceeded or upon request of the operator.



response Not accepted
It is up to the DAH to determine this limit.

comment 470 comment by: MARPA

The first paragraph of section 3 to GM No 1 to 21.A.7(a) states that "The requirement for Instructions for Continued Airworthiness is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be removed from service, and restoration may not be reasonably achievable." This is commonly referred to as a "remove and replace" article. Such a provision may be readily abused by a Holder or a supplier, by simply refusing to provide any ICA and claiming all articles (and in a worst-case extreme example even products) must be removed from service and replaced. This may be done for either anticompetitive reasons (freezing out competing maintenance providers by eliminating a maintenance opportunity) or for revenue generating reasons (forcing a product holder to buy a new article every time, rather than repairing a worn one). It is important to exercise caution with respect to this rule, as allowing too broad an interpretation of "deterioration [that] may require a product or an article to be removed from service [because] restoration may not be reasonably achievable" could quickly swallow the ICA rule.

It is thus important that remove and install instruction are NOT the only ICA available for articles for which restoration MAY be reasonably achievable.

It was never an intended, safe, or financially practical practice that remove and replace items would apply to major components throughout a product. It is unrealistic and impractical for an owner/operator's required maintenance action to be replacement action for an engine, propeller, APU, or other major aircraft system. Remove and replace items identified in the aircraft level ICA are intended to be expendables and other low value throw-away items, such as light bulbs, filters, o-rings, certain nuts & bolts, washers, rivets etc. These items, where there are no repair procedures or other maintenance instructions, are true "remove and replace" items. However, articles and components where maintenance instructions were developed, approved and are in use, or for which maintenance instructions could reasonably be developed, must be part of the complete set of ICA.

Additionally, it should be noted that anything deemed to be so deteriorated that it must be removed from service but that also is required to be sent back to the Holder or their authorized provider for service, would not be considered a "remove and replace" type sceneria as contemplated by this paragraph 3, and thus should require ICA, as the maintenance instructions would quite clearly exist.

We recommend revising the first paragraph of Section 3 to read "For expendable and similar articles for which restoration may not be reasonably achievable, an aircraft level maintenance action is a replacement action of 'remove and replace' or 'discard' and is sufficient ICA for the aircraft or component."

response Not accepted
This determination is the DAH's responsibility under the oversight of EASA.

comment 472 comment by: Safran Aircraft Engines



Parts Catalogues are required to be ICA. This documents are providing a list of parts that can be procured to customers for maintenance, along with some logistical information. The use of Parts Catalogues as a configuration management tools by the airlines or maintenance organisations is not recommended because replacement part's installation relies on the actual engine configuration. Only airlines or maintenance organisations can defined the airworthiness statement of actual engine configuration based on the actual Service Bulletins implementation.

Tooling Manuals are required to be ICA. This tools are means to ensure a maintenance functions, but tool by itself doesn't belong to the product's Type design definition. Any alternative tool develop by the airlines or the maintenance organisations and approved under Part-145 organisation are acceptable to ensure the ICA functions.

Safran AE recommends to suppress Parts Catalogues and Tooling Manuals from the list of ICA.

Proposed text:

2) The data containing the instructions itself is the ICA, not any particular type of publication. The DAH can decide – within the framework provided by point 21.A.7 and its acceptable means of compliance and guidance material – to publish the ICA in the most suitable location within all the information published to support the airworthiness of the aircraft. Publications typically created by DAHs (e.g. for the demonstration of compliance with a certification basis established on the basis of CS-25), and which may therefore include ICA, consist of:

- ...
- ~~Parts Catalogues;~~
- ~~Tooling Manuals;~~
- ...

response

Not accepted

The proposed list is only an example and it is up to the DAH to establish the list applicable to its product.

comment

477

comment by: MARPA

GM No 2 to 21.A.7 establishes the considerations for when a suppliers data is or is not considered ICA. Troublingly, it contains the following:

--if the ICA is defined at aircraft level, the following principles apply to the other supplier's data that is not related to ALS and not related to scheduled maintenance:

a. if the supplier's data includes a maintenance instruction for an action identified in the aircraft-level ICA, including an engine or propeller, this supplier's data should be referenced in the aircraft level ICA and should be made available like any other ICA. As an alternative to linking such supplier's data to the aircraft level ICA (e.g. with cross references), it is possible to include the relevant data directly into the aircraft ICA. In such a case, the supplier's data is not part of the aircraft ICA since the aircraft ICA contains all the required information. Another alternative is to develop the relevant data so it is included directly into the aircraft ICA.

b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance ('remove and replace' or 'discard') and does not refer to the supplier's data for necessary airworthiness actions, the aircraft's airworthiness can be maintained by replacement action, and the supplier's data are not part of the ICA for the aircraft. In such cases, the supplier's data does not need to be referenced in the aircraft ICA. Example: if



supplier's data is required to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data is not considered as part of the complete set of ICA for the aircraft. However the removal/installation part of the procedure is part of the aircraft ICA.

Although we do not believe it to be the intent, this language will quite quickly eliminate all in-house or third party maintenance on engines, propellers, and any removable appliances and components. It could even render the sort of CMMs necessary to resolve the referenced Icedlandair issue as "not ICA" depending on the supplier CMMs involved. These paragraphs should be revised to clearly state that when a supplier's data is the source of the maintenance data and instructions required to restore a part, component, or product, to an airworthy condition, those instructions are ICA. That same supplier data required to perform off-aircraft maintenance on an engine, propeller, appliance, or other article, is needed by the owner/operator and their chosen maintenance providers in order to return the products or articles to an airworthy condition.

We believe the intent of the provisions, with respect to engine, propeller, and other supplier data, whether for on-wing or off-wing maintenance is to indicate that the maintenance data can be incorporated in the aircraft ICA and thus be considered ICA, or in the alternative, if it is not incorporated, it should be considered its own, independent ICA (especially in the case of TC'd products like engines and propellers) that is still required to be made available to owners and any other person required to comply with any of the terms of the instructions. We do not believe that the intent of the provisions are to exempt engine, propeller, and appliance and component manufacturers from the ICA requirements, thus effectively eliminating any ability for owners to perform workshop maintenance or for third party maintenance organizations to perform any maintenance on engines, propellers, appliances, components, or other articles for which "supplier's data is required to perform off-aircraft maintenance." We believe this is illustrated by the statement that "this data is not considered as part of the complete set of ICA for the aircraft."

Unfortunately, as drafted it is unclear whether a product owner or maintenance provider would be entitled to ICA for engines and propellers, or for any article for which supplier data is required to perform off-aircraft maintenance. Therefore the provisions need to be clarified. We recommend revising as follows:

--if the ICA is defined at aircraft level, the following principles apply to the other supplier's data that is not related to ALS and not related to scheduled maintenance:

a. if the supplier's data includes a maintenance instruction for an action identified in the aircraft-level ICA, including an engine or propeller, this supplier's data ~~should~~ *must* be referenced in the aircraft level ICA and ~~should be~~ made available like any other ICA. As an alternative to linking such supplier's data to the aircraft level ICA (e.g. with cross references), it is possible to include the relevant data directly into the aircraft ICA. ~~In such a case, the supplier's data is not part of the aircraft ICA since the aircraft ICA contains all the required information. Another alternative is to develop the relevant data so it is included directly into the aircraft ICA.~~

b. if an aircraft level maintenance action is a replacement action for the engine, propeller, part or appliance ('remove and replace' or 'discard') *and there is no reference to supplier maintenance instructions required to perform off-aircraft maintenance and does not refer to*



~~the supplier's data for necessary airworthiness actions, the aircraft's airworthiness can be maintained by replacement action only (No restoration or repair can be performed on the part or appliance), and the supplier's data are not part of the ICA for the aircraft. In such cases, the supplier's data does not need to be referenced in the aircraft ICA. Example: However, if supplier's data is required to perform off-aircraft maintenance on an engine, propeller, or other article (i.e. workshop maintenance), then this data is not considered as part of the complete set of aircraft ICA as it is needed to restore the off-aircraft article and the aircraft to an airworthy condition. for the aircraft. However the removal/installation part of the procedure is part of the aircraft ICA.~~

The following paragraph 2 should then be deleted, as it is no longer relevant.

In the alternative, a provision could be added making it clear that if supplier's data is not considered a part of the complete ICA for the aircraft then the engine, propeller, or other article supplier MUST furnish and make available those ICA to any owner or any other person required to comply with the ICA, because those instructions are still considered ICA.

response Not accepted
This request goes beyond the scope of ICA.

New AMC 21.A.7(b) p. 16

comment 42 comment by: LHT DO
Please amend means for revision control to allow operators / DOAs to identify changes.
Please indicate that only specific data or sections of documentation can be considered as ICA.

response Partially accepted
Wording added to indicate that the DAH must provide the revision status of the ICA.

comment 76 comment by: Pratt@Whitney Rzeszow APUs
Propose to change from:
"the TCDS or the STC"
to:
"the TCDS or the STC or the DDP for APU:"

response Not accepted
APU is an ETSO which is indicated as being covered by the DDP.

comment 92 comment by: AIRBUS
1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:
Page 16 - AMC 21.A.7(b) Identification of the complete set of instructions for continued airworthiness
“...
”



For products and articles where the design approval holder holds a design organisation approval (DOA), the ICA are considered to be issued under the authority of the DOA, and therefore each document containing ICA should be marked as approved in accordance with point 21.A.265 (h)."

2. PROPOSED TEXT / COMMENT:

It is proposed to update the text as follows:

"For products and articles where the design approval holder holds a design organisation approval (DOA), the ICA are considered to be issued under the authority of the DOA, and therefore the approval of ICA should be made explicit to the reader in accordance with point 21.A.265 (h)."

3. RATIONALE / REASON / JUSTIFICATION:

The ICA are not necessarily documents but data. No need to mark every bit of data. For CMMs not practical to mark them individually; this can be handled at a higher level.

response

Accepted

The text has been amended accordingly.

comment

98

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 16

5. New AMC 21.A.7(b) is added

AMC 21.A.7(b) Identification of the complete set of instructions for continued airworthiness

For products and articles where the design approval holder holds a design organisation approval (DOA), the ICA are considered to be issued under the authority of the DOA, and therefore each document containing ICA should be marked as approved in accordance with point 21.A.265 (h).

2. PROPOSED TEXT / COMMENT:

For products and articles where the design approval holder holds a design organisation approval (DOA), the ICA are considered to be issued under the authority of the DOA, and therefore each document containing ICA should be marked as approved in accordance with point 21.A.265 (h) **unless otherwise agreed with the agency.**

3. RATIONALE / REASON / JUSTIFICATION:

It is suggested that the addition of the proposed wording will provide an opportunity for direct TCH / EASA discussion on the need to mark all ICAs as approved in accordance with point 21.A.265 (h). This may be helpful when addressing documents containing ICA that are not produced by the TCH.



response Accepted
The text has been amended accordingly.

comment 111 comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 16 – AMC 21.A.7(b) Identification of the complete set of instructions for continued airworthiness

“...

For changes to type certificates and repairs, the identification of ‘one complete set of those changes to the instructions for continued airworthiness’ should be performed by a statement to provide this information, or by confirmation that there are no changes to the instructions for continued airworthiness. This statement can also be made in the accomplishment document.

...”

2. PROPOSED TEXT / COMMENT:

It is proposed to amend the last sentence as follows: “... in the accomplishment document **(e.g. embodiment instructions).**”

3. RATIONALE / REASON / JUSTIFICATION:

For sake of understanding.

response Accepted
The text has been amended accordingly.

comment 112 comment by: AIRBUS

Page 16; AMC 21.A.7(b) Identification of the complete set of instructions for continued airworthiness

“...

— directly referenced in the DDP for the articles approved under ETSO.”

2. PROPOSED TEXT / COMMENT:

This bullet should not be hooked to 21.A.7(b) and AMC 21.A.7(b). It could be linked to 21.A.609 instead.

3. RATIONALE / REASON / JUSTIFICATION:



response	<p>The proposed AMC 21.A.609 (c) and (d) recognise that in CS-ETSO, there is no specification related to ICA and that an ETSO article itself typically does not require ICA. This not in line with 21.A.7 that is related to ICA.</p> <p>Accepted</p> <p>The reference to 'DDP' is removed.</p>
comment	<p>148 comment by: AIRBUS</p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 16/37, AMC 21.A.7(b)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>This AMC states that the approval holder needs to identify the complete set of ICA. The meaning of "complete" should be defined. 'complete' means sufficient to adequately support the product/component for the operational life approved at the time of product delivery or upon issuance of the first CoFA for the affected aircraft, whichever occurs later.</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>The 'complete set of ICA' may not be the same at time of TC issuance and after a life extension programme.</p>
response	<p>Not accepted</p> <p>The revision of the ICA is covered in the next sentence.</p>
comment	<p>173 comment by: KLM engineering & maintenance</p> <p>Comment summary The first sentence in the proposed rule for AMC 21.A.7(b) begins the following text: 'The approval holder needs to identify...'</p> <p>Suggested resolution For consistency within Part-21 rulemaking KLM proposes to EASA to include the word 'design, and to change the first sentence in the proposed rule for AMC 21.A.7(b) to: 'The design approval holder needs to identify...'</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>253 comment by: EAD Aerospace Airworthiness</p> <p>"If direct reference is made to the ICA in the TCDS or the STC, no reference to the revision level of the ICA should be made". EAD understand EASA prefers not to indicate revision level of applicable ICA in approval an alternative to this has to be discussed. From EAD experience current practice references those Revision Levels in STC. What is the reason for EASA position? Indeed, not providing the revision level seems to require to put in place broadcasting solutions that are not commonly in place and could be expensive. EAD would</p>



suggest to primarily keep current practice and propose alternative Revision Level information management depending on informing tools available at DOA.
Hence, EAD Would suggest to read "*If direct reference is made to the ICA in the TCDS or the STC, reference to the revision level of the ICA may be disregarded. In this case...*"

response

Not accepted
The idea is that the revision of the ICA should not require the revision of the TCDS or the STC.

comment

272 comment by: THALES AVS FRANCE SAS

AMC 21.A.7 (b)

Proposed modification

The approval holder needs to identify the complete set of ICA according to point 21.A.7(b) in such a way that the complete set can be:

- directly listed in the product TCDS; or
- indirectly referenced in the TCDS through other means, which allow the complete list of ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal manual’ or a reference to a DAH’s website); or
- directly listed in the product STC; or
- indirectly referenced in the STC through other means which allow to get the complete list of ICA; or
- ~~— directly referenced in the DDP for the articles approved under ETSO.~~

Rationale

Introducing ICA reference in the DDP of an article approved under ETSO is not consistent with:

- 21.A.7 (b) which does not mention holders of ETSO articles in the list of organization required to furnish ICA
- AMC 21.A.609 (c) and (d) which mentions that ETSO article does not require ICA

response

Accepted
The text has been amended accordingly.

comment

288 comment by: FNAME

ISSUE - Online and digital ICAs

Idem Comment 276

response

Not accepted
Part 21 deals with the obligations of design holders, but not with commercial aspects.

comment

360 comment by: FAA

1. Also GM No 2 through 4. The foreseeable and allowable processes for identifying and controlling Instructions for Continued Airworthiness (ICA) from the aircraft (product), to the engines and propellers (products), to the appliances/components/articles are quite complex and could be prone to errors. The processes appear to be contrary to the idea of “complete” ICA, and identifying, obtaining, validating, and maintaining the various documents could be burdensome.



	=
	2. Clarify. If a repair is determined not to be ICA, is it then not required to be furnished?
response	<p>Not accepted</p> <p>1. The list of ICA established by the DAH will be the key element to ensure the completeness of the ICA.</p> <p>2. Yes, a repair which is not ICA does not need to be furnished.</p>

comment	<p>390 comment by: Pratt & Whitney Canada</p> <p>Regarding: AMC 21.A.7(b) <i>“For changes to type certificates and repairs, the identification of ‘one complete set of those changes to the instructions for continued airworthiness’ should be performed by a statement to provide this information, or by confirmation that there are no changes to the instructions for continued airworthiness. This statement can also be made in the accomplishment document.”</i></p> <p>Comment: The meaning of this passage is unclear: It seems to state that for every revision of a manual, an engine DAH would either have to provide a full set of ICAs or state that there is no change to the ICA, even though the revision obviously IS the change. Recommend reviewing and rewording this section for clarity.</p>
response	<p>Not accepted</p> <p>This statement is only for design changes to type certificates and repairs.</p>

comment	<p>401 comment by: IATA</p> <p>IATA Comments</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Existing Text</th> <th style="text-align: center;">Comment / Proposed Text</th> <th style="text-align: center;">Justification</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> AMC 21.A.7(b) “... — directly listed in the product TCDS; or — indirectly referenced in the TCDS through other means, which allow the complete list of ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal manual’ or a reference to a DAH’s website); or — directly listed in the product STC; or </td> <td style="vertical-align: top;"> The complete list of ICA should be clearly identifiable and (at least) referenced in the TCDS. The wording used stating “indirectly referenced” is considered misleading and not acceptable. We propose the following wording: “... — directly listed in the product TCDS; or — referenced in the TCDS through other means, which allow the complete list of ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal </td> <td style="vertical-align: top;"> The clear mention of the ICA as being included in the type certificate (see 21.A.41 page 7 of 37 of this NPA) is automatically implying that the complete set of ICA would benefit of the respective identification as other elements included in the type certificate do (e.g. type certification basis, type design, operational limitations, environmental protection requirements, OSD). Thus, the complete list of ICA should be referenced in the TCDS exactly the way the other type certificate included elements are (see above the e.g. given). </td> </tr> </tbody> </table>	Existing Text	Comment / Proposed Text	Justification	AMC 21.A.7(b) “... — directly listed in the product TCDS; or — indirectly referenced in the TCDS through other means, which allow the complete list of ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal manual’ or a reference to a DAH’s website); or — directly listed in the product STC; or	The complete list of ICA should be clearly identifiable and (at least) referenced in the TCDS. The wording used stating “indirectly referenced” is considered misleading and not acceptable. We propose the following wording: “... — directly listed in the product TCDS; or — referenced in the TCDS through other means, which allow the complete list of ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal	The clear mention of the ICA as being included in the type certificate (see 21.A.41 page 7 of 37 of this NPA) is automatically implying that the complete set of ICA would benefit of the respective identification as other elements included in the type certificate do (e.g. type certification basis, type design, operational limitations, environmental protection requirements, OSD). Thus, the complete list of ICA should be referenced in the TCDS exactly the way the other type certificate included elements are (see above the e.g. given).
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<p>— indirectly referenced in the STC through other means which allow to get the complete list of ICA; or — directly referenced in the DDP for the articles approved under ETSO. ...”</p>	<p>manual’ which is identified and directly referenced in the TCDS or a direct reference to a DAH’s website where the complete listing of ICA can be directly accessed); or — directly listed in the product STC; or — referenced in the STC through other means which allow to get the complete list of ICA; or — directly referenced in the DDP for the articles approved under ETSO. ...”</p>	<p>Following such rationale, the “indirectly referenced” wording used in AMC 21.A.7(b) is not acceptable. Additionally, if the website reference option is exercised, the reference should reasonably guide the user to a direct access of the ICA list and should not be “generic” in nature.</p>
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response Not accepted
 Depending on the type of product, it would be unrealistic to find the complete list of ICA in the TCDS.

comment 431 comment by: MITSUBISHI AIRCRAFT CORPORATION

Page	Section	Reference	Comment/Reason for Change
16		AMC 21.A.7 (b)	How to handle the MRB task escalation by operator's reliability program?

response Noted
 This is typically a revision of the ICA the DAH must inform the aircraft operator about.

comment 449 comment by: DGAC France

DGAC France suggests indicating in that AMC that in case of changes/repairs/STC with no ICAs (often the case for minor changes/repairs), a statement specifying that no ICAs are associated to the change/repair should be exclusively provided by the DAH.

response Accepted
 The text has been amended accordingly.



comment	23	comment by: <i>KID-Systeme GmbH</i>
	<p>'list of effective pages' is not state of the art for electronic form of documents anymore. On the contrary, simple introduction of content in the middle of electronic documents would shift the entire list of effective pages; makes it hard to maintain. It had its eligibility in the past where documents were administrated on paper, only.</p> <p>Today there are other good indication mechanisms like change bars etc. Recommendation to remove this passage.</p>	
response	<p>Not accepted</p> <p>This GM offers flexibility: the DAH can demonstrate that it use other means than a list of effective pages for controlling its document.</p>	
comment	43	comment by: <i>LHT DO</i>
	<p><u>GM2 to 21.A.7(b)</u></p> <p>2) General considerations: Please note that cautions and warnings are not part of ICA! We propose the sentence "The ICA data should be introduced by cautions and warnings...." These cautions and warnings are not part of the ICA data itself.</p> <p>3) Publication of ICA in multiple documents The use of a principle document is straight forward. However, please clarify that each ICA element has to be marked in the document als "ICA data".</p> <p><u>GM No. 3 to 21.A.7(b)</u></p> <p>Article has never been used before. Please review the use of "part", "appliance" and "article" and include it and its definition into a Part 21 glossary.</p>	
response	<p>GM2: Not accepted: the GM gives some flexibility but the requirement to list all ICA remains.</p> <p>GM3: Accepted: 'article' replaced by 'equipment'.</p>	
comment	77	comment by: <i>Pratt@Whitney Rzeszow APUs</i>
	<p>Propose to change (3 items) from: "engine/propeller" to: "engine/propeller/APU"</p>	
response	<p>Not accepted</p> <p>An APU is not a product.</p>	
comment	78	comment by: <i>Pratt@Whitney Rzeszow APUs</i>
	<p>Propose to change from: "engine/propeller" to:</p>	



response	"engine/propeller/APU" Not accepted An APU is not a product.
comment	79 comment by: Pratt@Whitney Rzeszow APUs Propose to change (2 items) from: "engine/propeller TCH" to "engine/propeller TCH / APU Authorization Holder"
response	Not accepted An APU is not a product.
comment	83 comment by: Europe Air Sports GM No. 2 to 21.A.7 (b) Comment to (2) General considerations: Please delete the 2nd paragraph. It is impossible to foresee [any] possible mistake. Alternatively rewrite it to require only inclusion of known mistakes that have lead to safety incidents or safety recommendations. Comment to (5) Electronic Media : Please consider that CDs have practically disappeared, as have optical disk stations in computers. USB sticks are more relevant physical data carriers today.
response	Not accepted These media are listed as an example only.
comment	88 comment by: AIRBUS 1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: Page 17 _ GM No 2 to 21.A.7(b) Format of ICA §2) 2. PROPOSED TEXT / COMMENT: It is proposed to amend the following sentence: <i>"The ICA contains units of measurements. These measurements could be, for instance, instrument readings, temperatures, pressures, tolerances, limits, or torque values."</i> As follows: <i>"The ICA contains units of measurements. These measurements could be, for instance, instrument readings, temperatures, pressures, torque values with tolerances, limits, and range when applicable".</i> 3. RATIONALE / REASON / JUSTIFICATION: Self-explanatory.
response	Accepted



The text has been amended accordingly.

comment

93

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 18 - GM No 4 to 21.A.7(b) Integration of ICA between products (aircraft, engine, propeller)

“...

If the ICA published by the Aircraft TCH include some engine/propeller ICA developed by the engine/propeller TCH, the engine/propeller TCH should make an arrangement with the aircraft TCH to properly discharge its responsibilities under point 21.A.7 for its ICA. This arrangement should:

...”

2. PROPOSED TEXT / COMMENT:

It is proposed to update the text as follows:

*“If the ICA published by the Aircraft TCH include some engine/propeller ICA developed by the engine/propeller TCH, the engine/propeller TCH should make an arrangement with the aircraft TCH **setting out engine/propeller and aircraft TCH share of responsibilities with respect to ICA under point 21.A.7.** This arrangement should:...”*

3. RATIONALE / REASON / JUSTIFICATION:

Wording improvement for clarifications.

response

Accepted

The text has been amended accordingly.

comment

99

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 17

3) Publication of ICA in multiple documents

DAHs may prepare ICA as a document, or several documents, depending on how much data is necessary to provide complete ICA.

If there are multiple documents, there should be a principal document that describes the general scope of all other documents, in order to provide an overview of the multiple document structure. The principal document is the one used for day-to-day maintenance of the product.

In general, it is recommended that the principal document is the document used for maintenance, e.g. Aircraft Maintenance Manual (AMM), Rotorcraft Maintenance Manual (RMM), Engine Maintenance Manual (EMM), etc. The type of product will determine the assignment of the principal document.



1. PROPOSED TEXT / COMMENT:

DAHs may prepare ICA as a document, or several documents, depending on how much data is necessary to provide complete ICA.

If there are multiple documents, there should be a principal document that describes the general scope of all other documents, in order to provide an overview of the multiple document structure. ~~The principal document is the one used for day-to-day maintenance of the product.~~

~~In general, it is recommended that the principal document is the document used for maintenance, e.g. Aircraft Maintenance Manual (AMM), Rotorcraft Maintenance Manual (RMM), Engine Maintenance Manual (EMM), etc. The type of product will determine the assignment of the principal document.~~

3. RATIONALE / REASON / JUSTIFICATION:

It is recommended that GM N°2 to 21.A.7(b) focuses on the need to have a principal document that either contains or references all the aircraft level ICAs. With the inclusion of ALS, MRBR, AMM and CMM data this would be a good achievement. The recommendation that this principal document is the one used for day-to-day maintenance is not justified. The ICAs are referenced by the operator when establishing the content of their locally approved maintenance program. Once included in the program, they do not use ALS/MRBR on a daily basis. The justification for including a reference to these documents in the AMM is unclear. Similarly, the practicality of including in the AMM a reference to all CMMs that contain ICAs is questioned. If a DAH wishes to include all ICAs (or references to all ICAs) in their AMM then this is acceptable but this should not be written as the EASA recommendation.

response

Accepted

The text has been amended accordingly.

comment

113

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:**Page 18 – GM No 2 to 21.A.7(b) Format of ICA**

“3) Publication of ICA in multiple documents

...

A DAH who decides to segregate information dedicated to a specific subject from a principal document into a separate document, e.g. ‘Fuel Pipe Repair Manual’, ‘Cable Fabrication Manual’, ‘Duct Repair Manual’ or ‘Instrument Display Manual’, should declare these documents to be ICA.

...”

2. PROPOSED TEXT / COMMENT:

It is proposed to amend the last part of the sentence as follows: “...should declare these documents to be ICA, **if they contain ICA.**”

3. RATIONALE / REASON / JUSTIFICATION:

The segregated information is not necessarily ICA.

response

Not accepted

EASA does not expect the DAH to declare a document as ‘ICA’ if it does not contain ICA.

comment

114

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 18 – GM No 3 to 21.A.7(b) Approval status of the manual for an article

In cases where ICA are contained within a document for a specific article, it is possible that the article and its document may be used in products for more than one DOA holder. In such cases, instead of placing approval statements from each DOA holder in the same manual, it may be more practical to identify the approved status of the relevant document through its inclusion in lists managed by the DOA holders in accordance with the AMC to 21.A.7 (a).

2. PROPOSED TEXT / COMMENT:

This GM recognises that it may not be practical to place the approval statements on a document for a specific article in cases where the document is used in products for more than one DOA holder.

From a more general point of view it is not so practical and the preferred option for a DAH to record approval on supplier maintenance data. It is proposed that the option allowed by this GM be extended to maintenance data for article in general.

3. RATIONALE / REASON / JUSTIFICATION:

Self explanatory.

response

Noted

It is recognised that no statement is required for supplier data.

comment

149

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 16/37, GM No 1 to 21.A.7(b)

2. PROPOSED TEXT / COMMENT:

In accordance with this GM, ‘any other person required to comply’ means, amongst others, any maintenance organisation approved to maintain an aircraft or component, which is



covered by Regulation (EU) No 1321/2014, in the frame of a contract (or work order) with the owner or CAMO.

Should some clarifications be added (in Part 145) in order to explain how an applicant for a maintenance organisation approval can obtain a rating without being in the position to comply with the point 145.A.45 (when the applicant has not signed a contract yet)?

3. RATIONALE / REASON / JUSTIFICATION:

To obtain a rating... i.e. before any contract can be signed, 145.A.45 requires that the organisation holds applicable current maintenance data (including ICA) to perform maintenance, including modifications and repairs.

response

Not accepted

Part-145 is not addressed by RMT.0252 (MDM.056).

comment

150

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 17/37, GM No 2 to 21.A.7(b)

2. PROPOSED TEXT / COMMENT:

It is proposed to modify the paragraph 2) of this GM to read:

“The ICA contain units of measurements. These measurements could be, for instance, instrument readings, temperatures, pressures, tolerances, limits, or torque values. If the ICA contain **US other than metrics** standard measurements, the ICA should include a conversion to the metric measurement for each measurement, tolerance, or torque value. A general conversion table alone should not be provided, as it may introduce an additional source of error.”

3. RATIONALE / REASON / JUSTIFICATION:

Self-explanatory.

response

Accepted

The text has been amended accordingly.

comment

151

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, pages 16-18/37, GM No 2 to 21.A.7(b)

2. PROPOSED TEXT / COMMENT:

It is proposed to convert this GM into AMC.

3. RATIONALE / REASON / JUSTIFICATION:

The nature of information contained in this GM provides means of compliance (e.g. reference to Industry Standards).

response

Not accepted

The reference to industry standards is made for example only.



comment	152	comment by: AIRBUS
	<p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 17/37, GM No 2 to 21.A.7(b)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>It is proposed to modify the paragraph 3) of this GM to read: “If there are multiple documents, there should be a principal document that describes the general scope of all other documents, in order to provide an overview of the multiple document structure. The principal document is the one used for day-to-day continuing airworthiness management maintenance of the product.”</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>ICA are no longer use for maintenance only. It is believed that continuing airworthiness management should be the reference to show a certain alignment with point M.A.201.</p>	
response	<p>Not accepted</p> <p>The modified sentence is not kept after the NPA.</p>	

comment	153	comment by: AIRBUS
	<p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 18/37, GM No 2 to 21.A.7(b)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>It is proposed to amend the paragraph 5) of this GM to read: “When an electronic format is used, the DAH needs to consider aspects such as the traceability of updates, keeping previous versions (record keeping), data security and the possibility for the operator / owner to comply with the relevant operational requirements in updating their maintenance data or aircraft maintenance program, as ICA are one of the sources for the development and revision of the Aircraft Maintenance Programme and of the maintenance data form the basis for the maintenance data and aircraft maintenance program. Furthermore, there will usually be a need for the operator/owner person or organisation responsible for the aircraft continuing airworthiness and/or for performing maintenance to update the maintenance data or aircraft maintenance program to introduce changes such as STCs, repairs, etc.”</p> <p>3. RATIONALE / REASON / JUSTIFICATION: For sake of clarity.</p>	
response	<p>Not accepted</p> <p>The proposed modification does not clarify the sentence.</p>	

comment	154	comment by: AIRBUS
	<p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p>	



	NPA 2018-01, page 18/37, GM No 4 to 21.A.7(b)	
	<p>2. PROPOSED TEXT / COMMENT: It is proposed to convert this GM into AMC.</p> <p>3. RATIONALE / REASON / JUSTIFICATION: The nature of information contained in this GM provides means of compliance: e.g. “When referring to engine/propeller ICA directly in the aircraft ICA, the aircraft TCH should not perform additional verification and validation. However the integration and interface aspects between the aircraft and the engine/propeller are still under the responsibility of the aircraft TCH.”</p>	
response	Not accepted	The aircraft TCH may refer to engine/propeller ICA but may also integrates the necessary information from engine/propeller ICA into aircraft ICA
comment	193	comment by: <i>Antonio PARADIES</i>
	It is not clear if the specific format selected by the applicant must be used in a uniform manner within one manual or throughout all ICA. Typically, different manuals follow different standards and one standard cannot be adequate to all manuals.	
response	Noted	It is up to the DAH to adopt the standard which fits its needs.
comment	196	comment by: <i>ARSA</i>
	GM No 2 to 21.A.7(b) Format of ICA	
	ICA can be furnished or made available by various means (including paper copies, electronic documents, or web-based access). Regardless of the format, the design approval holder (DAH) is expected to furnish or make available the ICA in a means that is readily accessible for and useable by the owner and any person required to comply with the ICA. Service documents, such as service bulletins, may be used for transmitting ICA information and updates.	
	<p>ARSA suggests the following addition:</p> <p>In furnishing or making ICA available to organizations entitled to receive them, a DAH may impose reasonable fees to recoup its costs in creating ICA and making them available to organizations entitled to receive them. It may also impose reasonable restrictions on the ICA's use, such as requiring a maintenance organization and its subcontractors to sign a Non-Disclosure Agreement (NDA).</p> <p>However, the DAH may not limit the availability of ICA to favored organizations with which it has established a business relationship. Additionally, it may not remove required repairs or similar information from an ICA or impose source approval requirements as a condition for obtaining ICA if the entity requesting them is entitled to them under 21.A.7B and GM No 1.</p> <p>Additionally, the Agency will investigate complaints of DAHs charging excessive amounts to</p>	



	<p>obtain ICA if they render those instructions constructively unavailable or if the DAH attempts to interfere with an operator's or CAMO's choice of maintenance provider.</p> <p>It is not the Agency's intention to list all practices that might be used to reduce the information or availability of ICA. However, any authorized organization that believes a DAH has acted contrary to Part-21 may submit a complaint to the Certification Directorate for appropriate investigation and resolution.</p>
response	<p>Not accepted</p> <p>The comment is related to commercial aspects that are not addressed by RMT.0252 (MDM.056).</p>
comment	<p>221 comment by: <i>Jeff Conner</i></p> <p>"Any other person required to comply' means: - any independent certifying staff who perform maintenance on an aircraft or component, which is covered by Regulation (EU) No 1321/2015; in the form of a contract (or work order) . . . "</p> <p>Recommendation: This GM needs to be expanded to include the following aspects:</p> <p>- The language here should be amended to make it clear that the amount of access to ICA is aligned with the maintenance rating the "person" holds. For example, a "person" performing maintenance on a given component requires access to the ICA for that component, not access to the complete ICA for the engine or aircraft on which the component operates.</p> <p>- Entities such as brokers, even though they "own" parts or products, do not have a regulatory requirement to comply with ICA and therefor are not entitled to receive ICA.</p>
response	<p>Not accepted</p> <p>Brokers are not included in this GM.</p>
comment	<p>222 comment by: <i>Jeff Conner</i></p> <p>The 3rd paragraph states the following: "If the ICA published by the Aircraft TCH include some engine/propeller ICA developed by the engine/propeller TCH, the engine/propeller TCH should make an arrangement with the aircraft TCH to properly discharge its responsibilities under point 21.A.7 for its ICA."</p> <p>Comment: A written, it is understood that the engine TCH should be responsible for the arrangement to be made with the aircraft TCH for engine ICA contained in the aircraft ICA. As aircraft TCH is responsible for the data included in the aircraft ICA, the wording should be the other way around i.e. aircraft TCH should make an arrangement with the engine/propeller TCH. Note: The 4th paragraph of the section (on page 19) is in fact written this way.</p> <p>Recommendation: Change the wording here to reflect the wording in the 4th paragraph on Page 19.</p>
response	<p>Partially accepted</p> <p>The text has been amended and 'shared responsibility' is highlighted.</p>



comment	<p data-bbox="359 280 406 309">244</p> <p data-bbox="1093 280 1476 309" style="text-align: right;">comment by: <i>Dowty Propellers</i></p> <p data-bbox="359 336 662 369">ref GM No 1 to 21.A.7(b)</p> <p data-bbox="359 403 1476 548">"Any other person required to comply' means: - any independent certifying staff who perform maintenance on an aircraft or component, which is covered by Regulation (EU) No 1321/2015; in the form of a contract (or work order) ..."</p> <p data-bbox="359 582 1476 761">Recommendation: The language here should be amended to make it clear that the amount of access to ICA is aligned with the maintenance action to be performed. For example, "a person" performing maintenance on a given component requires access to the ICA for that component, not access to the complete ICA for the engine or aircraft on which the component operates.</p> <p data-bbox="359 795 1476 1086">Recommendation: This GM needs to be expanded to include the following aspects: - The level of ICA access to which "other persons required to comply" are entitled to receive is proportionate to the maintenance rating they hold. For example, an entity whose maintenance rating is limited to specific engine components (e.g. engine fuel pumps) has no regulatory requirement to comply with engine ICA other than the ICA specifically related to the components for which they hold a maintenance rating. - Entities such as brokers, even though they "own" parts or products, do not have a regulatory requirement to comply with ICA and therefore are not entitled to receive ICA.</p>
response	<p data-bbox="359 1108 518 1142">Not accepted</p> <p data-bbox="359 1153 1476 1220">The need of access to ICA is framed by the contract between the aircraft operator and the maintenance organisation</p>
comment	<p data-bbox="359 1288 406 1321">245</p> <p data-bbox="1093 1288 1476 1321" style="text-align: right;">comment by: <i>Dowty Propellers</i></p> <p data-bbox="359 1344 662 1377">ref GM No 4 to 21.A.7.b</p> <p data-bbox="359 1422 1476 1556">The 3rd paragraph states the following: "If the ICA published by the Aircraft TCH include some engine/propeller ICA developed by the engine/propeller TCH, the engine/propeller TCH should make an arrangement with the aircraft TCH to properly discharge its responsibilities under point 21.A.7 for its ICA."</p> <p data-bbox="359 1601 1476 1780">Comment: A written, it is understood that the engine TCH should be responsible for the arrangement to be made the aircraft TCH for engine ICA contained in the aircraft ICA. As aircraft TCH is responsible for the data included in the aircraft ICA, the wording should be the other way around i.e. aircraft TCH should make an arrangement with the engine/propeller TCH. Note: The 4th paragraph of the section (on page 19) is in fact written this way.</p> <p data-bbox="359 1814 1476 1881">Recommendation: Change the wording here to reflect the wording in the 4th paragraph on Page 19.</p>
response	<p data-bbox="359 1904 582 1937">Partially accepted</p> <p data-bbox="359 1948 1189 1982">The text has been amended and 'shared responsibility' is highlighted.</p>



comment	<p data-bbox="359 241 408 271">298</p> <p data-bbox="1018 241 1461 271" style="text-align: right;">comment by: <i>GE Aviation Czech s.r.o.</i></p> <p data-bbox="359 300 778 329">Section 3.2.6 GM No 4 to 21.A.7(b)</p> <p data-bbox="359 369 1471 510">The 3rd paragraph states the following: “If the ICA published by the Aircraft TCH include some engine/propeller ICA developed by the engine/propeller TCH, the engine/propeller TCH should make an arrangement with the aircraft TCH to properly discharge its responsibilities under point 21.A.7 for its ICA.”</p> <p data-bbox="359 551 1471 723">Comment: As written, it is understood that the engine TCH should be responsible for the arrangement to be made with the aircraft TCH for engine ICA contained in the aircraft ICA. As aircraft TCH is responsible for the data included in the aircraft ICA, the wording should be the other way around i.e. aircraft TCH should make an arrangement with the engine/propeller TCH. Note: The 4th paragraph of the section (on page 19) is in fact written this way.</p> <p data-bbox="359 763 1471 831">Recommendation: Change the wording here to reflect the wording in the 4th paragraph on Page 19.</p>
response	<p data-bbox="359 857 576 887">Partially accepted</p> <p data-bbox="359 898 1190 927">The text has been amended and ‘shared responsibility’ is highlighted.</p>
comment	<p data-bbox="359 999 408 1028">308</p> <p data-bbox="1106 999 1461 1028" style="text-align: right;">comment by: <i>Laurent Lalaque</i></p> <p data-bbox="359 1059 1471 1267">§ 3.2 – 5. GM N° 1 to 21.A.7 (b) Other persons required to comply This NPA should ensure the protection of intellectual property rights. Therefore, this NPA 2018-01 shall mention explicitly that the type certificate holder is allowed to furnish the ICA to the persons required to comply with the ICA, only in case a reasonable license agreement has been concluded between the two parties. In other words, the NPA 2018-01 shall mention explicitly that the supplying of the ICA can be subjected to a prior license agreement.</p> <p data-bbox="359 1274 539 1303"><u>Proposed text:</u></p> <p data-bbox="359 1310 1318 1339">GM No 1 to 21.A.7(b) Availability of the ICA -Other persons required to comply -</p> <p data-bbox="359 1346 914 1375">‘Any other person required to comply’ means:</p> <ul style="list-style-type: none"> <li data-bbox="359 1382 1471 1518">— any independent certifying staff who perform maintenance on an aircraft or component, which is covered by Regulation (EU) No 1321/2014, in the frame of a contract (or work order) with the owner or a Continuing Airworthiness Management Organisation (CAMO), and in the frame of a license agreement with the type certificate holder <li data-bbox="359 1525 1471 1626">— any maintenance organisation approved to maintain an aircraft or component, which is covered by Regulation (EU) No 1321/2014 , in the frame of a contract (or work order) with the owner or CAMO and in the frame of a license agreement with the type certificate holder <li data-bbox="359 1632 1471 1767">— any CAMO approved to manage the continuing airworthiness or the maintenance programme of an aircraft which is covered by Regulation (EU) No 1321/2014, when instructed by the owner/operator (through e.g. the contract with the owner/operator and in the frame of a license agreement with the type certificate holder) .
response	<p data-bbox="359 1798 523 1827">Not accepted</p> <p data-bbox="359 1839 1471 1906">It is up to the DAH to ensure that it has all the necessary authorisations to comply with this requirement, possibly through a licence agreement.</p>
comment	<p data-bbox="359 1975 408 2004">310</p> <p data-bbox="1106 1975 1461 2004" style="text-align: right;">comment by: <i>Laurent Lalaque</i></p>



	<p>§ 3.2 – 5. GM N°2 to 21.A.7.(b) Format of the ICA</p> <p>Putting the ICA in this new format will induce a significant workload. This NPA shall make clear that these format requirements are not applicable to the totality of the ICA for a given product already published (before this Part 21 change enters into force) for the case of changes to those ICA, but only to the portion of ICA being changed.</p>
response	<p>Noted</p> <p>This is only GM and it is not expected to be implemented for existing ICA.</p>
comment	<p>325 comment by: <i>Zodiac Aerospace - Sell GmbH DOA 21J.067</i></p> <p>In GM No 2 to 21.A.7(b) it has to be clarified that ICA information and updates are usually provided by Service (Information) Letter, whereas Service Bulletins directly include technical accomplishment instructions, e.g. for implementing design changes.</p> <p>Proposed text: Service documents, such as service bulletins <i>information letter</i>, may be used for transmitting ICA information and updates.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>326 comment by: <i>Zodiac Aerospace - Sell GmbH DOA 21J.067</i></p> <p>In GM No 2 to 21.A.7(b) the principal document for articles has to be added to provide a complete and clear scope of documents for products and articles.</p> <p>Proposed text: In general, it is recommended that the principal document is the document used for maintenance, e.g. Aircraft Maintenance Manual (AMM), Rotorcraft Maintenance Manual (RMM), Engine Maintenance Manual (EMM), <i>Component Maintenance Manual (CMM) for articles</i>, etc. The type of product <i>and article</i> will determine the assignment of the principal document.</p>
response	<p>Partially accepted</p> <p>This text has been removed from the GM.</p>
comment	<p>327 comment by: <i>Zodiac Aerospace - Sell GmbH DOA 21J.067</i></p> <p>In GM No 3 to 21.A.7(b) an additional optional means to identify the approval status through cover sheets issued by each DAH containing the ICA reference and related ICA approval status, as stipulated in 21.A.265(h), should be added to prevent unnecessary burden and cost.</p> <p>Proposed text: In such cases, instead of placing approval statements from each DOA holder in the same manual, it may be more practical to identify the approved status of the relevant document through its inclusion in lists managed by the DOA holders in accordance with the AMC to 21.A.7 (a), <i>or by cover sheets managed by the DOA holders, referencing the ICA and related approval status in accordance with 21.A.265(h).</i></p>
response	<p>Not accepted</p>



It will be up to the DAH to identify the approval status.

comment

361

comment by: FAA

1. This would appear to create conflict between these content details, in EASA Part-21, and the requirements in the certification standards. Also, placement in EASA Part-21 makes applicability to the various products addressed by the certification standards unclear. Recommend that these requirements be verified as universally compatible, or better, place these details in the individual certification specifications as appropriate.

2. Will ICA requirements be removed from the certification standards? If so, how will existing approvals be handled.

In GM No 1:

3. Depending on the applicability of this rule the explicit definition of “any other person” could create availability conflict outside of the EASA regulatory system.

4. See first comment on AMC 21.A.7(b).

=

5. Disagree. Don't limit to "aircraft or component". Expand to include "products or articles".

In GM No 2:

6. Clarify. Service Bulletins (SB's), as described in AC 20-114, form a different class of service document than those required for type certification, and SB's are not recommended as a substitute for acceptable ICA's.

response

Partially accepted

1. This AMC should be considered as guidance which is applicable to all products.

2. There is no intent to remove the ICA requirement from the CSs.

3. This GM clarifies whom EASA refers to.

4. The text has been corrected accordingly.

5. The text has been amended accordingly.

6. ‘Service bulletins’ are replaced by ‘service information letter’.

comment

377

comment by: Embraer S.A.

Embraer does not believe that it is necessary to always use the “latest” standard from A4A, ASD, or GAMA. Previous versions of these standards are still acceptable and there could be good reason to use the previous formatting standard (consistency with previous documents, timing of publication of new standard compared to certification date).

response

Noted

These standards are given as an example.

comment

391

comment by: Pratt & Whitney Canada

Regarding:



New GM No 1, 2...
 “any independent certifying staff who perform maintenance on an aircraft or component, which is covered by Regulation (EU) No 1321/2014, in the frame of a contract (or work order) with the owner or a Continuing Airworthiness Management Organisation (CAMO).”
Comment:
 This implies that a DAH would need to supply a complete set of ICAs to competitors. Recommend reconsidering this section given the Intellectual Property transfer implications.

response

Not accepted
 The need for ICA will be limited by the contract or work order.

comment

417 comment by: *Rolls-Royce plc*
 3.2, 6. 4) page 18 As written, this NPA allows the ICA to be written/presented in one official language(s) of the European Union. Why would EASA allow a departure from the widely Industry standard of simplified technical English?
 Proposed Solution: ICA written in a language outside of the existing Industry standard does not improve understanding of or adherence to the ICA.

response

Not accepted
 EASA cannot mandate English, but this GM recommends the use of English.

comment

432 comment by: *MITSUBISHI AIRCRAFT CORPORATION*

Page	Section	Reference	Comment/Reason for Change
18	3.2.6	GM4 to 21.A.7(b)	Aircraft TCH can not been responsible of engines having type certificate and dedicated ICA. To be deleted.

response

Not accepted
 This is shared responsibility between certificate holders.

comment

437 comment by: *Dassault-Aviation*
 §3.2 page 16
Text:
 5. New AMC 21.A.7(b) is added
 AMC 21.A.7(b) Identification of the complete set of instructions for continued airworthiness .
 The approval holder needs to identify the complete set of ICA according to point 21.A.7(b) in such a way that the complete set can be:
 — directly listed in the product TCDS; or
 — indirectly referenced in the TCDS through other means, which allow the complete list of ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal manual’ or a reference to a DAH’s website); or



	<p>— directly listed in the product STC; or</p> <p>— indirectly referenced in the STC through other means which allow to get the complete list of ICA; or — directly referenced in the DDP for the articles approved under ETSO.</p> <p><u>Comment:</u></p> <p>DA agree with this proposition allowing to address the list of ICA either:</p> <ul style="list-style-type: none"> - In the TCDS; or - referenced in the TCDS through other means
response	Noted

comment	<p>457 comment by: <i>FedEx Express</i></p> <p>Section 3.2.6 “GM No 2 to 21.A.7(b) Format of ICA”, FedEx would recommend the following language added under item “3) Publication of ICA in multiple documents”:</p> <p>DAHs must not house information in a proprietary document if that information consists of elementary operations. Proprietary documents should only contain specific procedures developed by a DAH that are complex in nature and beyond the scope of elementary operations. Having a separate ICA should not prevent the principal ICA from having enough information to restore a component to serviceability utilizing elementary operations.</p> <p>Note: US FAA Advisory Circular 43.13-1B provides definition of what is considered elementary operations.</p>
response	<p>Not accepted</p> <p>This comment is linked to commercial aspects which are not addressed by RMT.0252 (MDM.056).</p>

comment	<p>473 comment by: <i>Safran Aircraft Engines</i></p> <p>This NPA should not prevent the Type Certificate Holder (TCH) to protect its intellectual property rights. Therefore, this NPA 2018-01 shall mention that the TCH is allowed to furnish the ICA under license agreement to the persons required to comply with the ICA. In other words, the NPA 2018-01 shall mention explicitly that the supplying of the ICA can be subjected to a prior license agreement between the two parties.</p> <p>Proposed text:</p> <p>'Any other person required to comply' means:</p> <ul style="list-style-type: none"> — any independent certifying staff who perform maintenance on an aircraft or component, which is covered by Regulation (EU) No 1321/2014, in the frame of a contract (or work order) with the owner or a Continuing Airworthiness Management Organisation (CAMO), and in the frame of a license agreement with the type certificate holder — any maintenance organisation approved to maintain an aircraft or component, which is covered by Regulation (EU) No 1321/2014 , in the frame of a contract (or work order) with the owner or CAMO and in the frame of a license agreement with the type certificate holder — any CAMO approved to manage the continuing airworthiness or the maintenance programme of an aircraft which is covered by Regulation (EU) No 1321/2014, when instructed
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	by the owner/operator (through e.g. the contract with the owner/operator and in the frame of a license agreement with the type certificate holder) .
response	Not accepted It is up to the DAH to ensure that it has all the necessary authorisations to comply with this requirement, possibly through a licence agreement.
comment	478 comment by: MARPA GM No 4 to 21.A.7(b) states in its first paragraph that "The aircraft/engine/propeller TCH should ensure the availability of the ICA to allow maintenance of the aircraft, including the engine/propeller when installed on the aircraft." We believe it should also be clear that such data must be made available to product owners and anyone else required to comply even when the engine or propeller is off-wing. Therefore we recommend the following revision: "The aircraft/engine/propeller TCH should ensure the availability of the ICA to allow maintenance of the aircraft, engine, or propeller, including <i>regardless of whether</i> the engine/propeller when is currently installed on the an aircraft."
response	Not accepted This is a requirement for the DAH to make the ICA available.

New AMC 21.A.7(c)

p. 19-25

comment	15 comment by: Yuksel Kenaroglu Option 2: "...ICA available at entry into service..." If ICA will be a part of the Type Certification, without available ICA, how a TC process assumed complete ? Option 2 (and 3, possibly) makes ICA second in importance as it is today ! "Option 2 (a)": With this option EASA may consider giving "Temporary Type Certificate" to applicant who provided "Temporary Operational Limits" ! (It is known that continued/continuing (?) airworthiness documentation has quality problems/weakness today. Accident investigations results show that.) Shortly, exceptions (uncomplete document permission) to Option 1 needs to be stated not generally, but, specifically. (Like, structural life limits, etc...)
response	Noted These options are already covered by the EASA CM-ICA-001.
comment	46 comment by: LHT DO <u>GM No. 4 to 21.A.7(b)</u>



	<p>Please amend this GM for STCs.</p> <p><u>Page 23, last section:</u> The current requirement to support the operator with ICA before it is required should be kept. It should be allowed that the ICA will be issued just some months before they are required.</p>
response	<p>Not accepted</p> <p>The GM is not applicable to STC, as ICA must be issued with the STC.</p>

comment	<p>57</p> <p style="text-align: right;">comment by: <i>Juergen Lindgens</i></p> <p>In option 2(a) is mentioned that accomplishment procedures are usually described in other parts of the ICA(e.g.in the AMM or NDT manual)</p> <p>The current practice shows that many already released ICA instruction refer to NDT manuals, but following situations have been noticed since ICA instruction are issued by STC- or DOA-Holders:</p> <ul style="list-style-type: none"> • References to NDT manuals are wrong • References refer to general parts of NDT methods only • No specific NDT descriptions are mentioned • ICA instruction are often written by engineering employees in design organizations who have no NDT knowledge or NDT Level 3 knowledge in that method. • Many instruction found with no signature of a NDT Level 3 individual <p>My proposal: I don't know where the best place in the regulation is, but add a new point in the Part 21 regulation, that if NDT inspections are involved in the completion of ICA instruction, it is a requirement that the NDT tasks are controlled and a specific NDT procedure is available and signed by a Level 3 in that method.</p> <p>Note: I have recognized in my career that an engineer working in Part 21 organization is not familiar with Part 145/ Part M regulations, where NDT rules and requirements are very strictly described. Also all major OEM's and primes in aviation industry require Nadcap accreditation for their NDT processes from subcontractors. During audits, Nadcap auditors are using very specific NDT checklists. If you are not in compliance with every point, a non-conformance report will be issued and requires corrective action. Remember that the NDT standard EN 4179/NAS 410 was issued by primes and EASA has implemented this standard only in Part M/145 regulations and not in Part 21.</p>
response	<p>Noted</p> <p>This proposal is outside the scope of RMT.0252 (MDM.056).</p>

comment	<p>72</p> <p style="text-align: right;">comment by: <i>CAA-NL</i></p>
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	<p>AMC 21.A.7(c).2: The three options given are explained quite expansive which makes them rather unclear. Is a shorter to the point table not more illustrative and understandable? E.g. in option 2, a operational constraint is introduced in the TCDS, however this is perhaps not necessary because option 2 will introduce the ICA before EIS. Thus an operational constraint is perhaps not explainable. Then for option 3, no operational constraint will be introduced in the TCDS, while in that case it is more logical to do so, as the commercial operation will start then. Perhaps this step (TCDS limitation) should also be introduced in the flow charts for transparency.</p>
response	<p>Noted These options are already covered by the EASA CM-ICA-001.</p>
comment	<p>84 comment by: <i>Europe Air Sports</i></p> <p>Comment to (1) : 'An applicant may'.. replace with 'A TC/RTC holder or applicant may'</p> <p>Comment to (2) page 25, 1st para: What "Others" are meant?</p>
response	<p>(1) Not accepted: this GM is only for TC or RTC holders. (2) 'Others' means other reasons to amend the ICA.</p>
comment	<p>100 comment by: <i>AIRBUS</i></p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: Page 19</p> <p>AMC 21.A.7(c) Completeness and timely availability of ICA</p> <p>Option 2 – Complete ICA available at entry into service (TC/RTC)</p> <p>If the applicant plans for a part of the ICA to be available to the Agency at entry into service, the following approach is acceptable:</p> <p>a) For the ALS, as part of the type design, notwithstanding the selection of option 2: the applicant submits the ALS for approval prior to the design approval. Any ALS content that is incomplete, not yet demonstrated, or delayed beyond the design approval, requires to be compensated through an interim limitation to establish compliance within this limitation. The interim limitation is to be published and included in the ALS as a temporary operational limit.</p> <p>1. PROPOSED TEXT / COMMENT:</p> <p>a) For the ALS, as part of the type design, notwithstanding the selection of option 2: the applicant submits the ALS for approval prior to the design approval. Any ALS content that is incomplete, not yet demonstrated, or delayed beyond the design approval, requires to be compensated through an interim limitation to establish compliance within this limitation. The interim limitation is to be published to the concerned operator(s) as a temporary operational limit.in a manner agreed with the Agency and included in the ALS</p>



3. RATIONALE / REASON / JUSTIFICATION:

Temporary limitations are required information for operators in order to anticipate potential future limitations in case that the temporary nature is not relieved before EIS. Inclusion of these temporary limitations in the ALS will lead to mandatory need to reflect these limitations in their locally approved maintenance program which has to be established well before EIS. This is considered unnecessary and can lead to confusion when, at EIS, the temporary limitations are removed but there is no time to remove them from their maintenance program.

For these temporary limitations that will be removed at EIS (Option 2), it is suggested that the responsibility of the DAH is to publish the list of temporary limitations to the concerned customers but this does not need to be done in the ALS.

response

Accepted

The text has been amended accordingly.

comment

101

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 23

Option 3 - Complete ICA available after entry into service (TC/RTC)

f) In order to ensure that the applicant/holder can meet their obligations as set out in point 21.A.44 to control and support delaying the ICA, EASA may decide:

1. For ICA delayed until entry into service, to assign a condition / notation for the entry into service to be included in the TCDS as a result of these pending issues under the ICA paragraph, as per paragraph (e) 1. of Option 2;
2. For ICA delayed until after entry into service, to assign an interim limitation to be published and included in the ALS as a temporary operational limit, also for non-ALS ICA, to compensate for the delayed ICA. This approach may only be used for scheduled maintenance accomplishment procedures, where task and interval requirements are available.

2. PROPOSED TEXT / COMMENT:

Paragraph (f) refers to both Option 2 and 3. The Agency is requested to examine whether a new header is appropriate to identify paragraphs that are generic and do not apply solely to Option 1, 2 or 3.

3. RATIONALE / REASON / JUSTIFICATION:

It is not appropriate for information on Agency handling of Option 2 to be listed in a paragraph under Option 3.

This comment applies to para (f) but may also apply to some of the later paragraphs.

response

Not accepted



The proposal does not clarify the text.

comment

115

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 19 – AMC 21.A.7(c) Completeness and timely availability of ICA

2. PROPOSED TEXT / COMMENT:

AMC 21.A.7(c) is based on the EASA Certification Memorandum ref CM-ICA-001 related to Completeness and Timely availability of ICA.

The section 1) of the AMC is related to TC and RTC and copied from section 3.1 of the Certification Memorandum.

The section 2) of the AMC is related to changes to ICA and copied from section 3.1.4 of the Certification Memorandum.

As explained in section 3.4 of the Certification Memorandum the above identified sections are not adapted to the repair designs for which completeness and availability of ICA are managed under a staged process as explained in AMC 20-20.

The section 3.4 of the certification memorandum has not been retained into the AMC 21.A.7(c) and it is understood that this is an oversight.

It is proposed to create a dedicated AMC applicable to repair designs and based on Certification Memorandum section 3.4. This AMC should be included either under AMC 21.A.7(c) section 3 or in a new AMC dedicated to repair designs.

3. RATIONALE / REASON / JUSTIFICATION:

The current proposal is not practical for repair design activities as explained in EASA Certification Memorandum ref CM-ICA-001 section 3.4.

In addition there are ICA associated with repair designs as well, despite our interpretation other airworthiness authorities could insist on having ICA and changes to ICA associated with repair designs available well before it is needed and would be able to quote EASA Part-21 despite what has been agreed between the holder of a repair design approval and the EASA. Also SRM is declared as ICA. There is no distinction to the outside reader regarding which parts of the SRM are ICA. Therefore any other airworthiness authority could request a complete SRM at EIS. This is also true for daily repair design activities.

response

Not accepted

This GM is only addressed to TC/RTC holders, not to repair design holders.

comment

155

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 19/37, AMC 21.A.7(c)

2. PROPOSED TEXT / COMMENT:



It is proposed to amend the paragraph a) of the Option 2 in the paragraph 1) of this AMC to read:

*“In this context, ALS content is understood as the task method (e.g. a detailed inspection), including its reference, title and applicability, and the associated threshold/interval/life limit. The accomplishment procedure **itself**, i.e. how to carry out the task, is usually described in other parts of the ICA (e.g. in the AMM or NDT manual). **However the feasibility study of the accomplishment procedure is required for compliance with specific requirement (e.g. CS25.611).**”*

3. RATIONALE / REASON / JUSTIFICATION:

Experience shows that some accomplishment procedures cannot be complied with (infeasible/impractical), although the reference, title, description, applicability, and the associated airworthiness limitation (threshold/interval) are available.

The feasibility of the task should be demonstrated (e.g. for compliance with CS25.611) even if the accomplishment procedure is not completely available.

response Accepted

The text has been amended accordingly.

comment 156

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 23/37, AMC 21.A.7(c)

2. PROPOSED TEXT / COMMENT:

It is proposed to amend the paragraph i) of the Option 3 in the paragraph 1) of this AMC to read:

“To allow the timely review and incorporation of a delayed part of the ICA into the Aircraft Maintenance Programme or the maintenance data by the ~~owner/operator (and any other person required to comply with any of the terms of those instructions)~~ person or organisation responsible for the aircraft continuing airworthiness or for performing maintenance, the Agency considers that the delayed ICA should typically be made available [...].”

3. RATIONALE / REASON / JUSTIFICATION:

For sake of consistency with Regulation (EU) No 1321/2014.

response Accepted

The text has been amended accordingly.

comment 194

comment by: Antonio PARADIES

ATR believes that ICA should be available no later than the moment when the actual ICA will be used. A time margin of 2 years or 1 year seems to be arbitrary and cannot be applied to all cases and all kind of product.

response Not accepted



In all cases, the delay must be approved by EASA.

comment

223

comment by: *Jeff Conner*

This paragraph includes the words "... or service information".

Comment: This wording could be interpreted as meaning that any form of service information is considered ICA – which is incorrect. Only service information needed to maintain the safe operation of the product and incorporated by reference in ICA becomes part of ICA.

Recommendation: Revise the wording in this section to make clear that service information is not part of ICA unless the service information is incorporated by reference in ICA.

response

Not accepted

The DAH must list a complete set of ICA, with or without service information.

comment

224

comment by: *Jeff Conner*

AMC 21.A.7(c) Option 3 i) ... "To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (and any other person required to comply with any of the terms of these instructions), the Agency considers that the delayed ICA should typically be made available two years before the actual ICA has to be used, . . . "

Comment: Engines are not usually certified more than one year before the aircraft on which they will be installed receives certification. As such, the proposed two years advanced publication timing for "delayed" ICA would occur prior to the expected timing for engine certification.

Recommendations:

- (1) State that delayed portions of ICA (for engines) should typically be made available 1 year before the ICA content has to be used, and
- (2) State that "shorter time margins" that may be acceptable can be "not less than 6 months" before the actual delayed ICA has to be used (for engines).

response

Not accepted

The delay will have to be approved by EASA and the GM just gives a 'typical' delay.

comment

246

comment by: *Dowty Propellers*

ref 3.2 subj 7, AMC 21.A.7.c option 3c.5

This paragraph includes the words "... or service information".

Comment: This wording could be interpreted as meaning that any form of service information is considered ICA – which is incorrect. Only service information needed to maintain the safe operation of the product and incorporated by reference in ICA becomes part of ICA.



response	<p>Recommendation: Revise the wording in this section to make clear that service information is not part of ICA unless the service information is incorporated by reference in ICA.</p> <p>Not accepted</p> <p>The DAH must list a complete set of ICA, with or without service information.</p>
comment	<p>305 comment by: <i>Laurent Lalaque</i></p> <p>§ 3.2 – sub§7 AMC 21.A.7(c) Option 3 §c.5 p.22/37</p> <p>This paragraph includes the words “... or service information”. These wording could be interpreted as meaning that any form of service information is considered ICA – which is incorrect. Only service information needed to maintain the safe operation of the product and incorporated by reference in ICA becomes part of ICA.</p> <p>SafranHE recommends to revise the wording in this section to make clear that service information is not part of ICA unless the service information is incorporated by reference in ICA.</p> <p><u>Proposed text:</u></p> <p>5. Information on the format in which the ICA delayed until after entry into service will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information incorporated in the ICA (SBs, SIL, etc.).</p>
response	<p>Not accepted</p> <p>The DAH must list a complete set of ICA, with or without service information.</p>
comment	<p>306 comment by: <i>Laurent Lalaque</i></p> <p>§ 3.2 – sub§7 AMC 21.A.7(c) Option 3 §i p.23/37</p> <p>Engines are typically not certified more than one year before the aircraft certification. As such, the proposed two years advanced publication of the ICA is not achievable, that would require to provide all ICA in advance to the engine certification.</p> <p>SafranHE is proposing</p> <p>(1) a change from 2 years to 1 year before the actual ICA has to be used and</p> <p>(2) a change from 1 year to 6 months before the actual delayed ICA has to be used.</p> <p><u>Proposed text:</u></p> <p>To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (and any other person required to comply with any of the terms of those instructions), the Agency considers that the delayed ICA should typically be made available two one years before the actual ICA has to be used (e.g.: first programmed shop visit), when using normal revisions as a format. However, shorter time margins may be acceptable, provided that the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but they should not be less than 1-year 6 months before the ICA has to be used.a change from 1 year to 6 months before the actual delayed ICA has to be used.</p>
response	<p>Not accepted</p> <p>The delay will have to be approved by EASA and the GM just gives a ‘typical’ delay.</p>
comment	<p>328 comment by: <i>Zodiac Aerospace - Sell GmbH DOA 21J.067</i></p>



	<p>The restriction in AMC 21.A.7(c) to TC or RTC applicants/holders only has to be removed since a supplemental type certificate, design change or repair design approval may as well affect the instructions for continued airworthiness dealing with overhaul or other forms of heavy maintenance.</p> <p>Proposed text:</p> <p>1) 1) Completeness and timely availability of ICA for type certificate (TC), and restricted type certificate (RTC), <i>supplemental type certificate and design change or repair design approval</i> applicants/holders ...</p> <p>In addition delete completely "(TC/RTC)" in text and flowcharts.</p>
response	<p>Not accepted</p> <p>This GM is addressed to TC/RTC holders only.</p>
comment	<p>363 comment by: FAA</p> <p>Option 2:</p> <p>1. Option 2 does not appear to be compliant with 14 CFR standards. Although 14 CFR 25 (Transport Airplanes) contains provisions for not finalized Instructions for Continued Airworthiness (ICA), due to structural testing status, there are no provisions for less than complete ICA in other respects. In the case of incomplete testing (and Airworthiness Limitations) the regulation contains mandatory requirements for limiting aircraft cycles.</p> <p>2. Can non-EU design approval applicants/design approval holders utilize Option 2?</p> <p>Option 3:</p> <p>3. Option 3 is not consistent with 14 CFR standards for complete ICA at delivery or standard airworthiness certification.</p> <p>4. Can non-EU design approval applicants/design approval holders utilize Option 3?</p> <p>=</p> <p>5. An SSD. The FAA does not allow overhaul instructions to be delayed until they are needed.</p> <p>6. For (i) Comment: A similar statement is needed to assure that the delayed ICA must also be made available to all persons required to comply with the instructions.</p> <p>7. For 2) Clarify whether the 1st para. includes repairs.</p>
response	<p>1. This AMC stems from an EASA CM, which is in line with the EASA practice.</p> <p>2. This AMC is only applicable to EU TC holders where EASA is the State of Design.</p> <p>3. This difference of interpretation is known, but EASA considers that this practice is acceptable.</p> <p>4. This AMC is only applicable to EU TC holders where EASA is the State of Design.</p> <p>5. This difference of interpretation is known, but EASA considers that this practice is acceptable.</p> <p>6. This is covered by paragraph (i).</p>



7. This provision is limited to TC/RTC holders and may be applicable to repairs designed by them.

comment

415

comment by: *Rolls-Royce plc*

Regarding Option 3 Item c) 4; "This detailed plan should be available prior to ...directly integrated or cross-referenced in a compliance plan". It is not clear what this section is asking for.

Proposed Solution: Can this sentence be clarified?

response

Not accepted

It means that the plan should be available before the approval of the related design.

comment

438

comment by: *Dassault-Aviation*

§ 3.2 page 23

Text:

AMC 21.A.7(c) Completeness and timely availability of ICA
Option 3 - Complete ICA available after entry into service (TC/RTC)

i) It is assumed that for those ICA that are available to the Agency at the time of entry into service, they are also at the same time furnished to the operator/owner and made available to any other person required to comply with any of those instructions in accordance with points 21.A.21(c)4, 21.A.44 and 21.A.7. This is in order to satisfy the Agency that such a delayed publication will not have an adverse effect on the continuing airworthiness of any individual aircraft. To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (and any other person required to comply with any of the terms of those instructions), the Agency considers that the delayed ICA should typically be made available two years before the actual ICA has to be used, when using normal revisions as a format. However, shorter time margins may be acceptable, provided that the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but they should not be less than 1 year before the ICA has to be used.

Comment:

"Delayed ICA should be made available two years before the actual ICA has to be used". "two year before" can seem too much stringent. In order to avoid misunderstanding with this wording DA suggests to clarify the "delayed part of ICA" by adding a brief explanation of the scope of the possible delayed ICA : **"delayed ICA(which are ICA associated to overhaul or others form of heavy maintenance or related to fatigue aspects)"**

as a consequence the text proposed is the following :
"To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (and any other person required to comply with any of the terms of those instructions), the Agency considers that the delayed ICA(**which are ICA associated to overhaul or others form of heavy maintenance or related to fatigue aspects**) should typically be made available two years before the actual ICA has to be used, when using normal revisions as a format. However, shorter time margins may be acceptable"



	<p>regarding the normal revision: Normal revision process is not defined and with the new technology is no more adequate. Therefore the statement related to "when using normal revision as a format " can be cancelled .</p>
response	<p>Not accepted The paragraph refers to ICA which are delayed, and the last sentence covers the case where an electronic medium is used.</p>

comment	<p>461 comment by: <i>FedEx Express</i></p>
	<p>Section 3.2.7 “AMC 21.A.7(c) Completeness and timely availability of ICA” allows DAHs to release an aircraft or component into service without providing an ICA. While FedEx agrees with this section and understands how it can prevent unnecessary delays, it also creates the following issues:</p> <ul style="list-style-type: none"> • While the intent is to have an ICA available before ‘overhaul or other forms of heavy maintenance’ is needed, this might not be able to be predicted. Aircraft/components can fail prematurely for many reasons and without notice. Not having a designated overhaul (or other repair procedure) in the ICA prevents the returning of that aircraft/component to a serviceable condition. • Since there is no ICA available, the operator cannot review the procedures used to make their aircraft/component airworthy. Since each operator maintains the responsibility of the safety of their fleet, not knowing what is being done to their aircraft/component creates an issue. • The absence of any plan for return to service of a failed component prior to ICA release. This could be mitigated by a plan that incorporates instructions for operators who suffer such a failure to accommodate services for return to service.
response	<p>Not accepted This GM is addressed to TC/RTC holders for the ICA they produce themselves.</p>

comment	<p>474 comment by: <i>Safran Aircraft Engines</i></p>
	<p>This paragraph includes the words “... or service information”. These wording could be interpreted as meaning that any form of service information is considered ICA – which is incorrect. Only service information needed to maintain the safe operation of the product and incorporated by reference in ICA becomes part of ICA. SafranHE recommends to revise the wording in this section to make clear that service information is not part of ICA unless the service information is incorporated by reference in ICA.</p>



	<p>Proposed text: 5. Information on the format in which the ICA delayed until after entry into service will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information incorporated in the ICA (SBs, SIL, etc.).</p>
response	<p>Not accepted The DAH must list a complete set of ICA, with or without service information.</p>
comment	<p>475 comment by: <i>Safran Aircraft Engines</i></p> <p>Engines use to be certified one year to 6 months in advance to the aircraft certification. As such, the proposed two years advanced publication of the ICA is not achievable, that would require to provide all ICA in advance to the engine certification. Safran AE is proposing (1) a change from 2 years to 6 months before the actual ICA has to be used and (2) a change from 1 year to 3 months before the actual delayed ICA has to be used.</p> <p>Proposed text: To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (and any other person required to comply with any of the terms of those instructions), the Agency considers that the delayed ICA should typically be made available two years 6 months before the actual ICA has to be used (e.g.: first programmed shop visit), when using normal revisions as a format. However, shorter time margins may be acceptable, provided that the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but they should not be less than 1-year 3 months before the ICA has to be used.</p>
response	<p>Not accepted The delay will have to be approved by EASA and the GM just gives a 'typical' delay.</p>

New AMC 21.A.14(b)

p. 25

comment	<p>157 comment by: <i>AIRBUS</i></p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: NPA 2018-01, page 25/37, AMC 21.A.14(b)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>It is proposed to amend this AMC to read: “The information and instructions should contain a statement showing Agency approval: — ‘The technical content of this document data set/module is produced in accordance with alternative procedures to those in the DOA, as agreed by EASA (No. EASA.APxyz) and it refers to EASA approved [TC][STC][ETSOA] ref. No. xxx.’”</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>For sake of consistency with a previous comment.</p>
response	<p>Accepted</p>



The text has been amended accordingly.

comment 290 comment by: *FNAM*

PROPOSAL

Proposed 21.A.265(h) states adding “This document is part of the ICA for product [yyyy]” where appropriate. This is really welcomed and FNAM and GIPAG suggest to add that same statement in AMC 21.A.14(b) for ICAs issued by APDOA

response Not accepted
The statement specific to ICA is not kept as it would not be applicable to supplier data.

comment 364 comment by: *FAA*

Can US State-of-Design approval holders use the alternative procedures?

response Not accepted
They are not supposed to apply for an EASA approval for their design organisation, thanks to the BASA.

New GM 21.A.90C

p. 25

comment 59 comment by: *Safran Landing Systems*

Suggestion for added content to GM to 21.A.90C: clarification that changes to ICAs are to be processed and approved in accordance with subpart D, the only exception being those changes falling into the definition as per point 21.A.90C (c)

response Not accepted
This GM only clarifies what is a stand-alone change: the applicability of Subpart D is covered by the Regulation.

comment 102 comment by: *AIRBUS*

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:
Page 25

GM 21.A.90C Stand-alone change

When a non-ALS ICA variation is triggered by a change to the type design, this does not affect the overall classification of the type certificate change as per point 21.A.91.

2. PROPOSED TEXT / COMMENT:

When a non-ALS ICA ~~change-variation~~ is triggered by a change to the type design, this does not affect the overall classification of the type certificate change as per point 21.A.91.



3. RATIONALE / REASON / JUSTIFICATION:

The word 'variation' may be incorrectly interpreted. Some DAHs use the term 'Variation' specifically in the context of ALS and do not use it for non-ALS to avoid confusion. Similarly, some NAA use the term 'Variation' to describe a short term extension to a scheduled maintenance task interval (refer to Para 6.5 of CAA UK's CAP562 and its Appendix A). To avoid unnecessary confusion it is proposed to use the word 'change'. If the author wishes to avoid have the word 'change' two times in the same sentence then we would suggest that 'amendment' would be an acceptable alternative.

response

Accepted

The text has been amended accordingly.

comment

188

comment by: *Textron Aviation*

Paragraph 11 says "Stand-alone changes to non-ALS ICA that require additional work to demonstrate compliance with the applicable certification basis as follows:" This seems to be in conflict to the previous section 3.2.9. for Stand-alone change that says, "A change to ICA is considered to be a stand-alone change when it is not directly prepared together with a change to the type design"

Suggested Change: Please clarify if a stand-alone change is or is not associated with a change in type design.

response

Not accepted

A stand-alone change is not associated with a change design, but may require additional work as illustrated by the examples given in the GM.

comment

225

comment by: *Jeff Conner*

The 5th paragraph gives examples of changes that may require additional activities.

Recommendation: This paragraph may be deleted as it is repeated in the proposed amendment to Appendix A to GM 21.A.91 on page 26, para.11(i)

response

Not accepted

These examples help understand this GM.

comment

247

comment by: *Dowty Propellers*

The 5th paragraph gives examples of changes that may require additional activities.

Recommendation: This paragraph may be deleted as it is repeated in the proposed amendment to Appendix A to GM 21.A.91 on page 26, para.11(i)

response

Not accepted

These examples help understand this GM.



comment	300	comment by: <i>GE Aviation Czech s.r.o.</i>
	The 5th paragraph gives examples of changes that may require additional activities.	
	Recommendation: This paragraph may be deleted as it is repeated in the proposed amendment to Appendix A to GM 21.A.91 on page 26, para.11(i).	
response	Not accepted These examples help understand this GM.	
comment	365	comment by: <i>FAA</i>
	1. Can engine or propeller repairs be added or removed as stand alone changes?	
	=	
	2. Comment: Are engine and propeller repairs stand-alone changes? Please clarify. Are all repairs ICA?	
response	Not accepted The requirement is for changes to the ICA. This is applicable to repair design ICA. So, adding or removing a repair is not a stand-alone change and not all repairs are ICA.	

Appendix A to GM 21.A.91

p. 26

comment	36	comment by: <i>LHT DO</i>
	11. According to §§ 90C(c) the paragraph 21.A.91 is not applicable for stand alone changes to non-ALS ICA. This is in contradiction to this sequence.	
response	Not accepted This GM explains point 21.90(c)(2) as regards the non-ALS ICA changes which require the DAH to perform additional demonstration of compliance with the certification basis, i.e. for which 21.A.91 is applicable.	
comment	54	comment by: <i>Pilatus</i>
	<ul style="list-style-type: none"> · Margins when determining whether changes to Airworthiness Limitations are Major Changes. <p>According to the proposed Appendix A to GM 21A.91, changes to the ALS are only considered to be major changes if the reduction in life limit or the reduction in the inspection threshold or interval is more than a certain margin (x %). It is noted that this provides some relief to the approval procedure for TC holders. However, Pilatus has concerns that this increases a risk for incremental changes to Airworthiness Limitations which after a certain cumulation may negatively affect the continued airworthiness of the aircraft.</p> <p>Pilatus considers ALS to be of such significance that authority involvement is warranted regardless of the amount of reduction of the limitations. Therefore, Pilatus proposes to consider all changes to the ALS to be a significant change to the ICA.</p>	



	When the wording "adversley affect the already published limitaitons.." is usd, does this mean when you correct a typo or add a note etc. that such a change in the ALS can be classified as minor and approved under DOA?
response	Partially accepted The GM to 21.A.90 has been revised to remove the possibility to consider changes to the ALS to be stand-alone changes.
comment	55 comment by: <i>Christopher BERRY</i> Adding examples of the Airworthiness Limitation Section major changes, would imply that not all airworthiness limitation changes are major, which would contradict the NPA 2017-20 reintroduced GM 21.A.91 Classification of changes to a type certificate (TC) §3.4 (e) 'where the change alters the airworthiness limitations or the operating limitations'. I recommend that §3.4 (e) 'where the change alters the airworthiness limitations or the operating limitations', is again deleted and any changes to the airworthiness limitations, or the operating limitations, is classified per 21.A.91 and the effect on characteristics affecting the airworthiness of the product.
response	Accepted The GM to ALS has been removed.
comment	60 comment by: <i>Christopher BERRY</i> The 'classification process' for 'changes to type certificate (TC)' flow diagram amended with NPA 2017-20, may need to be amended again to include, '10 Airworthiness Section' & '11 Stand-alone changes to non-ALS ICA that require additional work to demonstrate compliance'.
response	Partially accepted The paragraph on ALS is not kept and the paragraph on stand-alone changes is added to the classification process.
comment	73 comment by: <i>CAA-NL</i> GM 21.A.91.10(i) and (ii): We are very curious what percentages will be mentioned here as a threshold?
response	Not accepted This paragraph is not kept.
comment	91 comment by: <i>AIRBUS</i> 1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: Page 26 Appendix A to GM 21.A.91: <i>"11.Stand-alone changes to non-ALS ICA that require additional work to demonstrate compliance with the applicable certification basis as follows:</i>



(i) changes related to accomplishment instructions (e.g. to the aircraft maintenance manual) related to the CDCCL, or the EWIS ICA, when changing the technical content (e.g. gaps, steps) of the procedures,”

2. PROPOSED TEXT / COMMENT:

It is proposed to clarify as follows:

“11.Stand-alone changes to non-ALS ICA that require additional work to demonstrate compliance with the applicable certification basis as follows:

*(i) changes related to accomplishment instructions (e.g. to the aircraft maintenance manual) related to the CDCCL, or the EWIS ICA, **for which** the technical content (e.g. gaps, steps) of the procedures **is changed,**”*

3. RATIONALE / REASON / JUSTIFICATION:

For sake of clarity.

response

Accepted

The text has been amended accordingly.

comment

103

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 26

10. Appendix A to GM 21A.91 is amended as follows

Appendix A to GM 21A.91 Examples of Major Changes per discipline

[...]

10.Airworthiness Limitations Section

Changes that adversely affect the already published limitation(s) or introduce a new limitation not associated with a physical change to the product, as follows:

(i) a reduction in the life limit of more than x%,

(ii) a reduction in the inspection threshold or interval of more than x %,

(iii) the introduction of a new life limit or a new CDCCL,

(iv) the introduction of a CMR item (e.g. the introduction of CCMR into the ALS following MRB task re-assessment).

11.Stand-alone changes to non-ALS ICA that require additional work to demonstrate compliance with the applicable certification basis as follows:

(i) changes related to accomplishment instructions (e.g. to the aircraft maintenance manual) related to the CDCCL, or the EWIS ICA, when changing the technical content (e.g. gaps, steps) of the procedures,

(ii) the introduction of novel technology for inspection purposes related to an ALS task,

(iii) changes that adversely affect the certification assumptions: e.g. some specific inspection procedures, such as inspection procedures for use after a hard landing, may include a decision-making chart based on the level of exceedance of the load in comparison with the certified limit loads. Such criteria, and adverse changes, need to be agreed with the Agency.

2. PROPOSED TEXT / COMMENT:



1) The value of 'x' in 10(i) and 10(ii) will need to be inserted before publication in order to ensure a level playing field between DAHs. This should be discussed with Industry before finalisation.

2) New para 12 proposed as follows:

12. Stand-alone changes to non-ALS ICA developed through an Agency accepted process (e.g. MRB Process) may be handled under 21.A.91 to 21.A.109 as for changes to type design. This could lead to some being classified as Major.

3. RATIONALE / REASON / JUSTIFICATION:

Paragraph 11 addresses stand-alone changes to non-ALS ICAs. However the particular case of the MRB process is not sufficiently addressed. It could thus be interpreted that no stand-alone change to the MRB Report needs to be classified as Major. While that might be acceptable to some DAHs, Airbus consider that it is not realistic and thus propose a paragraph 12 is added to specifically mention that MRB Report changes might also be classified as Major Changes

While that might be acceptable to some DAHs, Airbus consider that it is not realistic and thus propose a paragraph 12 is added to specifically mention that MRB Report changes might also be classified as Major Changes

response

Not accepted

This proposed new paragraph was not part of the NPA.

comment

116

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 26 – Appendix A to GM 21A.91 Examples of Major Changes per discipline

“...

10.Airworthiness Limitations Section

Changes that adversely affect the already published limitation(s) or introduce a new limitation not associated with a physical change to the product, as follows:

“...”

2. PROPOSED TEXT / COMMENT:

It is proposed to modify the text as follows:

“...

10.Airworthiness Limitations Section

*Changes that **introduce a new limitation** or adversely affect the already published limitation(s) ~~not associated with a physical change to the product~~, as follows:”*

3. RATIONALE / REASON / JUSTIFICATION:



response	<p>For sake of clarity the criteria “introduce a new limitation” is introduced first. There is no reason to limit these classification criteria to ALS changes not associated with a physical change to the product.</p> <p>Not accepted This paragraph is not kept.</p>
comment	<p>254 comment by: EAD Aerospace Airworthiness</p> <p>"i) a reduction in the life limit of more than x%" : How x% shall be determined and handled? Is this a value that has to be identified under DOA privileges?</p>
response	<p>Not accepted This paragraph is not kept.</p>
comment	<p>366 comment by: FAA</p> <p>1. Each of these situations would require an airworthiness directive to implement on US-registered aircraft (and other products). They could not be implemented by ICA change alone on products/articles in service.</p> <p>=</p> <p>2. Comment: Not just “x%”, but any life reduction.</p>
response	<p>Not accepted This paragraph is not kept.</p>
comment	<p>418 comment by: Rolls-Royce plc</p> <p>Appendix A to GM 21.A.91 Item 10 is introduced to address ALS changes. As the ALS is part of the type design, we have always understood that any change to the ALS is Major, unless agreed otherwise by the Agency. Do we take these new examples to mean that all other ALS changes are Minor?</p> <p><u>Proposed Solution:</u> Clarification requested.</p> <p>Regarding examples of major changes for Airworthiness Limitations Section. The text refers to a "reduction ... more than x%". What is the limiting or trigger point percentage?</p> <p><u>Proposed Solution:</u> Please define.</p> <p>Appendix A to GM 21.A.91 Item 11 is introduced to address standalone ICA changes. However, the full Appendix lists examples of Major changes, and applicants therefore must use their understanding of the principles behind the examples (in the main GM 21.A.91) to classify changes as Major even if they are not listed in the examples.</p> <p>The new material includes three cases ((i) to (iii)) which are understandable, but the sentence preceding them contains the principle "that require additional work to demonstrate compliance..." - if the Appendix is used as normal, this principle will be used to define many more Major standalone ICA changes. Furthermore, as this language is normally used to</p>



differentiate between different levels of Minor changes, this will also produce disproportionately more Major changes to ICA than to the product, as it is good practice to re-evaluate the change against the certification basis where possible. An example of such a change might be the introduction of a new cleaning agent into the shop manual. We believe this was not the intent of this section, but that it was intended to highlight three significant items only. We therefore propose to remove the principle, as the sentence works well without it.

Reword _____ to:
 "11 Stand-alone changes to non-ALS ICA as follows:"

response Not accepted
 This paragraph is not kept.

comment 433 comment by: MITSUBISHI AIRCRAFT CORPORATION

Page	Section	Reference	Comment/Reason for Change
26	3.2.10	Appendix A to GM 21.A.91	Appendix A to GM 21.A.91 10 for (i) and (ii) x shall to be replaced by a value.

response Not accepted
 This paragraph is not kept.

comment 439 comment by: Dassault-Aviation

§ 3.2 page 26

Text:

10. Appendix A to GM 21A.91 is amended as follows Appendix A to GM 21A.91 Examples of Major Changes per discipline [...] 10.Airworthiness Limitations Section Changes that adversely affect the already published limitation(s) or introduce a new limitation not associated with a physical change to the product, as follows: (i) a reduction in the life limit of more than x%, (ii) a reduction in the inspection threshold or interval of more than x %, (iii) the introduction of a new life limit or a new CDCCL, (iv) the introduction of a CMR item (e.g. the introduction of CCMR into the ALS following MRB task re-assessment).

Comment:

10. ALS: Today all the ALS modification are " Major Change" , DA agree with this proposition which mitigates the requirement. However how and on what basis will be defined the X% related to life limit and interval inspection ?
 This point needs to be clarified.

response Not accepted
 This paragraph is not kept.



GM No 1 to 21.A.239(a)

p. 26-27

comment	17	comment by: <i>Yuksel Kenaroglu</i>
	<p>"Page 26, 3.1.5": "Instructions for continued airworthiness and Operating Instructions": This title may be reviewed, because, by definition, ICA may include operating instructions, also.</p>	
response	<p>Not accepted There might be some operating instructions which are not ICA.</p>	
comment	44	comment by: <i>LHT DO</i>
	<p>Please differentiate between Manuals (Data to be used by 145 organisation) and ICA. Within 3.1.4 a new definition "operating/installation instructions" is used. The definition must be consistent within Part 21.</p> <p>We propose to amend Part 21 with all definitions used.</p>	
response	<p>Not accepted This request is outside the scope of RMT.0252 (MDM.056).</p>	
comment	74	comment by: <i>CAA-NL</i>
	<p>GM no 1 to 21.A.239(a) Please refer to our comment number 130 to NPA 2017-20.</p>	
response	<p>Not accepted ALS is part of the type design and it must be available at TC issuance, whereas the remaining ICA may be released at a later stage.</p>	
comment	80	comment by: <i>Pratt@Whitney Rzeszow APUs</i>
	<p>Propose to add reference to CS-APU and change from: "(...)P 30, or CS-P 40 (NPA P-3);" to: "(...)P 30, CS-P 40 (NPA P-3) or CS-APU 20, CS-APU 30;"</p>	
response	<p>Accepted The text has been amended accordingly.</p>	
comment	117	comment by: <i>AIRBUS</i>
	<p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p> <p>Page 27; GM N°.1 to 21.A.239(a) Design Assurance System "...</p>	



verification of feasibility in practical applications; and responsibilities and authorised signatories”

2. PROPOSED TEXT / COMMENT:

It is proposed to amend the text as follows:

“verification of feasibility in practical applications **when relevant and feasible**; and responsibilities and authorised signatories”

3. RATIONALE / REASON / JUSTIFICATION:

Not all type of ICA can be verified for feasibility in practical applications. Typically a trouble shooting procedure cannot be verified without a failure.

In addition for simple updates of ICA it is not systematically needed to re-perform a verification.

response

Accepted

The text has been amended accordingly.

comment

118

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 27; GM N°.1 to 21.A.239(a) Design Assurance System

2. PROPOSED TEXT / COMMENT:

It is propose to add the following note at the end of 3.1.5 a):

“Note: The compliance verification, as described in §3.1.3 b. of this GM, applies to the manuals approved by the Agency (Aircraft Flight Manual, the Airworthiness Limitations section of the Instructions for Continued Airworthiness and the Certification Maintenance Requirements (CMR) document, where applicable). For the other ICA the procedure required by §3.1.5 a. provides a sufficient level of verification and do not require specific compliance verification unless, in line with 21.A.90C, additional work to demonstrate compliance is required. In this case, where additional showing of compliance are required, points 21.A.91 to 21.A.109 applies and then the independent checking function of the showings of compliance as per 21.239(b) applies.”

3. RATIONALE / REASON / JUSTIFICATION:

The need for compliance verification for ICA has been repetitively discussed within industry and is subject to divergent interpretations. This note aims at clarifying when compliance verification is required and when it is not since GM N°.1 to 21.A.239(a) paragraph 3.1.5 provides a sufficient level of verification tailored to other ICA. The objective is to provide a harmonized interpretation across the industry.

response

Accepted

The text has been amended accordingly.



comment	226	comment by: <i>Jeff Conner</i>
	" . . . ensuring that these documents are provided to all . . . "	
	Recommendation: The word "provided" should be replaced with "made available" for consistency with the language in the regulations such that this sentence reads " . . . ensuring that these documents are made available to all . . . "	
response	Accepted The text has been amended accordingly.	
comment	248	comment by: <i>Dowty Propellers</i>
	" . . . ensuring that these documents are provided to all . . . "	
	Recommendation: The word "provided" should be replaced with "made available" for consistency with the language in the regulations.	
response	Accepted The text has been amended accordingly.	
comment	307	comment by: <i>Laurent Lalaque</i>
	The proposal requests for verification of the feasibility in practical application. Not all maintenance tasks need such verification. Practical verification should be linked to the complexity of the maintenance task. SafranHE recommends to relate the verification of the feasibility in practical applications to the complexity if the task. <u>Proposed text:</u> 3.1.5 Maintenance Instructions for continued airworthiness and Operating Instructions a. Ensuring the preparation and updating of all maintenance instructions for continued airworthiness and operating/installation instructions (including Services Bulletins) needed to maintain airworthiness (continuing airworthiness)in accordance with the relevant CS. For that purpose, the applicant should: ... Verification of feasibility in practical applications when needed according to complexity of the task ; and responsibilities and authorised signatories.	
response	Partially accepted The text has been amended accordingly.	
comment	367	comment by: <i>FAA</i>
	For U.S. Registered aircraft, this is only enforceable by AD action.	
response	Noted	
comment	416	comment by: <i>Rolls-Royce plc</i>



GM No 1 to 21.A.7(b) clarifies that ICA is to be made available to individuals when required to work to ICA by an owner/operator. We agree with this important distinction, but also suggest a clarification note is added as a reminder that the individuals identified are all required to work to the operator/owners maintenance programme, which may require the use of the DAH's ICA.

Proposed Solution: Clarification note needed.

Title GM No 1 to 21.A.239(a) 3.1.5 may include 'Installation Instructions' in addition to be in line with the content.

Proposed Solution: Edit required, as described.

response Partially accepted
The text has been amended to reflect compliance with 21.A.7(b).

comment 476 comment by: *Safran Aircraft Engines*

The proposal requests for verification of the feasibility in practical application. Not all maintenance tasks need such verification.

Practical verification should be linked to the complexity of the maintenance task.

Safran AE recommends to relate the verification of the feasibility in practical applications to the complexity if the task.

Proposed text:

3.1.5 Maintenance Instructions for continued airworthiness and Operating Instructions

a. Ensuring the preparation and updating of all maintenance instructions for continued airworthiness and operating/installation instructions (including Services Bulletins) needed to maintain airworthiness (continuing airworthiness) in accordance with the relevant CS. For that purpose, the applicant should:

...

Verification of feasibility in practical applications when needed, according to complexity of the task and responsibilities and authorised signatories.

response Partially accepted
The text has been amended accordingly.

AMC No 1 to 21.A.243(a)

p. 27

comment 227 comment by: *Jeff Conner*

"14. A description of the procedures for the establishment and control of the **maintenance and operating instructions** (see 21.A.6, . . . "



response	<p>Recommendation: The text “maintenance and operating instructions” should be replaced with “instructions for continued airworthiness and operating/installation instructions” to maintain consistency with the amendment done on page-26, paragraph 3.1.5.a.</p> <p>Not accepted</p> <p>Maintenance is kept as the design assurance system should not be limited to ICA.</p>
comment	<p>249 comment by: <i>Dowty Propellers</i></p> <p>Recommendation: The text “maintenance and operating instructions” used in paragraph 14 should be changed to “instructions for continued airworthiness and operating/installation instructions” to maintain consistency with the amendment done on page-26, paragraph 3.1.5.a.</p>
response	<p>Not accepted</p> <p>Maintenance is kept as the design assurance system should not be limited to ICA.</p>
comment	<p>301 comment by: <i>GE Aviation Czech s.r.o.</i></p> <p>Recommendation: The text “maintenance and operating instructions” used in section 14 should be changed to “instructions for continued airworthiness and operating/installation instructions” to maintain consistency with the amendment done on page-26, paragraph 3.1.5.a.</p>
response	<p>Not accepted</p> <p>Maintenance is kept as the design assurance system should not be limited to ICA.</p>

GM 21.A.265(h)

p. 28

comment	<p>104 comment by: <i>AIRBUS</i></p> <p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO: Page 28</p> <p>4. PROCEDURE For the information and instructions issued under point 21.A.265(h), the DOA holder should establish a procedure that addresses the following aspects of those items:</p> <ul style="list-style-type: none"> a. their preparation, b. verification of their technical consistency with the corresponding approved change(s), repair(s) or approved data, including their effectivity, description, effects on airworthiness and environmental protection, especially when limitations are changed, c. verification of their feasibility in practical applications, d. the authorised signatories. <p>The procedure should include the information or instructions prepared by sub-contractors or vendors, and declared applicable to its products by the DOA holder.</p> <p>2. PROPOSED TEXT / COMMENT:</p>
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This is understood to require the DOA holder to perform tasks a, b, c and d on all data published in CMMs that relates to off-aircraft ALS / MRBR tasks. This would, for example, include all CMM instructions pertaining to landing gear restoration that are identified by the MRB Process and identified in the Airbus Landing Gear Overhaul Procedures (OHP) document. It is not clear whether it is the intention of the NPA to place the responsibility to perform these tasks onto the DOA Holder or whether their responsibility is to ensure that they are performed by the supplier (as is done today).

3. RATIONALE / REASON / JUSTIFICATION:

Clarification is requested due to the significance of the DOA Holder's work required to manage, verify and validate ICA data published in CMMs that are owned by suppliers / vendors.

response

Not accepted

This check is limited to the CMM declared as ICA; furthermore, AMC No 3 to 21.A.7(a) indicates how this check may be performed by the DAH or by the supplier in accordance with the supplier process.

comment

119

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

Page 28; GM 21A265(h)

"4. Procedure

...

c. verification of their feasibility in practical applications "

2. PROPOSED TEXT / COMMENT:

It is proposed to update the text as follows:

"c. verification of their feasibility in practical application, when relevant and feasible,"

3. RATIONALE / REASON / JUSTIFICATION:

Not all type of ICA can be verified for feasibility in practical applications. Typically a trouble shooting procedure cannot be verified without a failure.

In addition for simple updates of ICA it is not systematically needed to re-perform verification.

response

Accepted

The text has been amended accordingly.

comment

158

comment by: AIRBUS

1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:

NPA 2018-01, page 28/37, GM 21.A.265(h)



	<p>2. PROPOSED TEXT / COMMENT:</p> <p>It is proposed to replace the term ‘sub-contractors or vendors’ by ‘suppliers’.</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>For sake of simplification.</p>
response	Accepted The text has been amended accordingly.
comment	255 comment by: EAD Aerospace Airworthiness "c. verification of their feasibility in practical applications". Practical verification is not systematically achievable/necessary. EAD would suggest to say "c. verification of their feasibility as determined necessary by practical applications "
response	Partially accepted The text has been amended.
comment	291 comment by: FNAM ISSUE - Transition measures and Catch-up process Idem Comment 278
response	Noted

AMC 21.A.433(a) and 21.A.447	p. 28
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comment	197 comment by: ARSA 15. New AMC 21.A.609(c)(d) is added AMC 21.A.609 (c) and (d) Obligations of holders of ETSO authorisations In CS-ETSO, there is no specification related to ICA, neither in Subpart A, nor specifically in each ETSO. Although an ETSO article itself typically does not require ICA, the applicable airworthiness standards may require the installing design approval holder (DAH) or design approval applicant (DAA) to develop ICA that describe an ETSO article’s installation requirements, within the context of the product. In addition, this NPA requires the DAH to the extent necessary to ensure the ETSOA article's continuing airworthiness. In addition, if an the installing DAH or DAA explicitly uses ETSO provisions to demonstrate compliance with an installation requirement, they should review all the maintenance and inspection instructions for the ETSO article when defining the ICA of the product. This includes the same workshop data required for any installed component referenced in GM No. 2 to 21.A.7(a). It may be necessary for the The DAH or DAA should incorporate these instructions into the ICA of the product to ensure that the ETSO article continues to satisfy the terms of its ETSO after installation. Any DAH who wishes to install an ETSO article should comply with point 21.A.303. For this, the applicant for an ETSO authorisation may provide by the time of application and before the authorisation is issued (in accordance with point 21.A.605) the following: —
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	instructions that cover periodic maintenance, calibration, and repair, for the continued airworthiness of the article, including specific guidance on the limits of wear and damage that would warrant replacement; — the recommended inspection intervals and service life, which may be affected by storage and operating conditions (i.e. temperature, humidity, etc.).
response	Not accepted The proposal does not clarify the text.

New AMC 21.A.609(c)(d)

p. 28-29

comment	45	comment by: <i>LHT DO</i>
	A new expression "DAA" is used. Please explain and include in a required definition section of Part 21.	
response	Not accepted The 'DAA' (design approval applicant) is explained at the beginning of the paragraph.	
comment	121	comment by: <i>AIRBUS</i>
	<p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p> <p>Page 28; AMC 21.A.609 (c) et (d)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>The content of this AMC is not relevant to ETSO applicants /holders but to DAH/DAA at product level. Thus it should be removed from Subpart O.</p> <p>3. RATIONALE / REASON / JUSTIFICATION:</p> <p>Self explanatory.</p>	
response	Not accepted This is to ensure a link with AMC No 3 to 21.A.7(a) where the check of the maintenance instructions produced by the ETSO holder could be verified by the DAH or the supplier.	
comment	159	comment by: <i>AIRBUS</i>
	<p>1. PARAGRAPH / SECTION THE COMMENT IS RELATED TO:</p> <p>NPA 2018-01, page 28/37, AMC 21.A.609 (c) and (d)</p> <p>2. PROPOSED TEXT / COMMENT:</p> <p>In the second paragraph, reference is made to 'product's continuing airworthiness'. Is it really 'continuing airworthiness' or is it 'continued airworthiness' like in the first bullet of the sixth paragraph?</p>	



	<p>Why is reference made to ‘maintenance and inspection instructions’ in the third paragraph, as the term ‘inspection’ is covered by the term ‘maintenance’ under Regulation (EU) No 1324/2014?</p> <p>What is the meaning of ‘service life’? The term ‘service life limited parts’ has been found confusing in the frame of the NPA 2014-04 on ‘technical records’ (RMT.0276) and was proposed for removal from Regulation (EU) No 1324/2014.</p> <p>3. RATIONALE / REASON / JUSTIFICATION: For sake of understanding and consideration of requirements from a consistent end to end perspective.</p>
response	<p>Accepted</p> <p>The text has been amended accordingly.</p>
comment	<p>257 comment by: ARSA</p> <p>15. New AMC 21.A.609(c)(d) is added AMC 21.A.609 (c) and (d) Obligations of holders of ETSO authorizations</p> <p>In CS-ETSO, there is no specification related to ICA, neither in Subpart A, nor specifically in each ETSO. Although an ETSO article itself typically does not require ICA, the applicable airworthiness standards may require the installing design approval holder (DAH) or design approval applicant (DAA) to develop ICA that describe an ETSO article’s installation requirements, within the context of the product. This NPA requires the DAH to the extent necessary to ensure the ETSOA article's continuing airworthiness. In addition, if an the installing DAH or DAA explicitly uses ETSO provisions to demonstrate compliance with an installation requirement, they should review all the maintenance and inspection instructions for the ETSO article when defining the ICA of the product. This includes the same workshop data required for any installed component referenced in GM No. 2 to 21.A.7(a). It may be necessary for the The DAH or DAA should incorporate these instructions into the ICA of the product to ensure that the ETSO article continues to satisfy the terms of its ETSO after installation. Any DAH who wishes to install an ETSO article should comply with point 21.A.303.</p> <p>For this, the applicant for an ETSO authorization may provide by the time of application and before the authorization is issued (in accordance with point 21.A.605) the following: — instructions that cover periodic maintenance, calibration, and repair, for the continued airworthiness of the article, including specific guidance on the limits of wear and damage that would warrant replacement; — the recommended inspection intervals and service life, which may be affected by storage and operating conditions (i.e. temperature, humidity, etc.).</p>
response	<p>Not accepted</p> <p>The proposal does not clarify the text.</p>
comment	<p>329 comment by: Zodiac Aerospace - Sell GmbH DOA 21J.067</p> <p>The AMC 21.A.609(c) and (d) describes the Obligations of holders of ETSO Authorisations but also contains obligations related to DAA/DAHs, which have to be deleted here and should be transferred to AMC No. 3 to 21.A.7(a).</p> <p>Delete here and transfer:</p>



~~In addition, if an installing DAH or DAA explicitly uses ETSO provisions to demonstrate compliance with an installation requirement, they should review all the maintenance and inspection instructions for the ETSO article when defining the ICA of the product. It may be necessary for the DAH or DAA to incorporate these instructions into the ICA of the product to ensure that the ETSO article continues to satisfy the terms of its ETSO after installation.~~

~~Any DAH who wishes to install an ETSO article should comply with point 21.A.303.~~

response Not accepted

This is to ensure a link with AMC No 3 to 21.A.7(a) where the check of the maintenance instructions produced by the ETSO holder could be verified by the DAH or the supplier.

comment 369

comment by: FAA

1. Many US Technical Standard Orders require the information listed here for the TSO approval, subject to design approval applicant verification and potential use at installation. Auxiliary power units are an exception. Many installers may not have the expertise to develop Instructions for Continued Airworthiness for the appliances they install.

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2. Clarify: A point of confusion is that US readers know that APUs are TSO articles requiring ICA, whereas EASA's APU requirements are in the CS-APU spec (and that ETSO specifications do not apply to APUs).

response Not accepted

This AMC is added to highlight that ETSO holders may produce some maintenance instructions that the DAH may consider as ICA.

GM 21.B.55

p. 29

comment 269

comment by: Europe Air Sports

GM 21.B.55 Record keeping (RMT.0276...)

Using the word "initially" leads to a lack of clarity in the provision. There should be a distinct time limit, removing any uncertainty.

response Accepted

'Initially' removed from the text.

comment 459

comment by: Martin Ryff

GM 21.B.55

The meaning of the first sentence is unclear. When the responsibility is transferred to the Agency, it seems more appropriate that the latter becomes also responsible for the record keeping. Otherwise it must be clarified what "initially" means.

response Accepted

'Initially' removed from the text.

