

Comment				Comment summary	Suggested resolution	Comment is an observation (suggestion)	Comment is substantive (objection)	EASA comment disposition	EASA response
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1	ACLAS Technics	3.1.1	5	<p>Option 1 – Complete ICA available at time of the approval (TC/RTC)</p> <p>An impractical solution to the problem. Aircraft at this stage are still undergoing testing / development with many modifications being brought in. Option 1 should only be applied to the following conditions:</p> <p>Aircraft in test and development.</p> <p>This will allow for modifications to be sorted out and embodied before going into service.</p>		Yes		Noted	It is recognized, that it may be a challenge to complete all ICA at time of the design approval (TC/RTC). However, this could be considered a planning issue the applicant could accommodate for in his project planning.
2	ACLAS Technics	3.1.2	6	<p>Option 2 – Complete ICA available at entry into service</p> <p>From my personal experience of bringing aircraft into military service as well as importing into the EASA area two new types I have found the following:</p> <p>Not all the information has been proofed on a live aircraft and data and information is incorrectly presented. An example was a parking brake handle connected to a rod as shown in the IPC on the aircraft it had been replaced by a cable.</p> <p>Using this method aircraft that are in the process of being used for development can be prepared under Option 1 and aircraft going into service can be controlled by Option 2.</p> <p>By using this method, a greater accuracy will be obtained on the actual fit of the aircraft and the modification status of the aircraft as it enters service with its respective organisation without the flurry of AD's and SB's that seem to follow an aircraft these days. By also using this method all the data can be proved and presented as a complete package reducing the NAA / EASA time, as well as being used as a check process by the TC.</p>		Yes		Noted	Indeed, option 2 (but also option 3) is in general supported by EASA to allow TC applicant more time in verifying their ICA content. However, it should be noted, that between TC and EIS, the time available is in general fairly short.
3	ACLAS Technics	3.1.3	9	<p>Option 3 - Complete ICA available after entry into service (TC/RTC)</p> <p>Bringing information in relation to ICA after the introduction into service in my opinion is an incident waiting to happen. Using this method, I believe that it will result in confusing information being with operators, different aircraft in different states and confusion for planning and engineering staff as well as in some cases possibly aircrew by having different configurations for the aircraft. I believe that this option should be rejected.</p>		Yes		Not accepted	The certification memorandum provides conditions for option 3 (Complete ICA available after entry into service (TC/RTC)) that prevent the mentioned risk. As described this encompass accomplishment procedure for long lead scheduled maintenance task, only, the operator has visibility on.

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4	Air France DOA EASA.21J.027	Section 3.2.	12 of 13	<p>For “Standard*” classified STC, knowing what follows:</p> <ul style="list-style-type: none"> <li>The design development period is usually relatively short (6 to 8 months);</li> <li>The post-modification configuration is “adjusted” during the aircraft “prototype” installation up to the very end of the working party; itself very close to the STC granting;</li> </ul> <p>the ICA cannot be available with an acceptable complete content at the time of approval (Option 1).</p> <p>* iaw the definition mentioned in the EASA form for “Application for approval of STC”</p>	<p>For “Standard*” classified STC, the option 2 (Complete ICA available at entry into service: EIS) seems to be the most realistic way.</p> <p>As corollary, the ICA completeness and timely availability should be different depending on the STC classification level as follows :</p> <ul style="list-style-type: none"> <li>STC “Simple*” classified: .....option 1</li> <li>STC “Standard*” classified:...option 2</li> <li>STC “Complex*” classified: ...option 2 or 3</li> </ul> <p>* iaw the definition mentioned in the EASA form for “Application for approval of STC”</p>	Yes	No	Not accepted	It is recognized, that with increasing complexity it may be a challenge to complete all ICA at time of the design approval. However, this could be considered a planning issue the applicant should accommodate for in his project planning. As stipulated in para 3.2. “In principle the 3 options described in this certification memorandum for TC/RTC are also applicable to STC. ...However, To minimize the risk of incomplete ICA, EASA will normally insist on ICA for STCs being made available prior to EIS, at the latest” (option 2). Consideration is given to the fact that an applicant/holder for a STC typically has not the same capability of controlling and supporting delayed ICA after EIS, and has not a long lasting relationship with the owner of his product as a TC/RTC applicant/holder. Further, the likelihood of a STC holder company vanishing from the market is considered relatively higher.
5	Airbus Transport International	3.2	12	<p><i>Further, consideration should be given to the fact that <u>an</u> applicant/holder for a STC may not have the same capability of controlling and supporting delayed ICA after EIS as a TC/RTC applicant/holder.</i></p> <p>Not necessarily, some STC holders, such as ATI are also the A/L operating the STC modified A/C. Those have even more means than TCH to control ICA before and after EIS.</p>	<p><i>Further, consideration should be given to the fact that <u>some</u> applicant/holder for a STC may not have the same capability of controlling and supporting delayed ICA after EIS as a TC/RTC applicant/holder.</i></p>	Yes	No	Not accepted	EASA’s experience is that a STC applicant typically has not the same capability of controlling and supporting delayed ICA after EIS, and has not a long lasting relationship with the owner/operator of his product as a TC/RTC applicant/holder. Further, the likelihood of a STC holder company vanishing from the market is considered relatively higher. Therefore the existing wording is considered appropriate.
6	Airbus Transport International	3.2	13	<p><i>To minimize the administrative workload of all involved parties, the availability of the final variations to ICA at time of the approval is <u>the only way</u> for applicants to comply with the requirement.</i></p> <p><i>a) At time of certification, all associated variations to ICA are produced, verified and are provided or made available to the Agency, if requested.</i></p> <p><i>b) It is assumed that if all associated variations to ICA are available prior to approval of the minor change, they are then furnished to operator/owner and any other person required to comply with any of those instructions at EIS the latest, in accordance with 21.A.107.</i></p> <p>It is not necessarily the case, for example delivery of the ICA jointly with SB can be considered, this allow to have a package SB + maintenance related ICA provided to Part 145. Being delivered jointly with the SB, the ICA are provided prior to EIS.</p> <p>Of course if EASA was to require variation as part of approval, ATI would provide them.</p> <p>Today as a general rule for paragraph 25.1529 in the certification program, ATI refers to its ICA delivery process in DOH without providing the “non directly approved” ICAs.</p>	<p><i>To minimize the administrative workload of all involved parties, the availability of the final variations to ICA at time of the approval is the <b>preferred</b> way for applicants to comply with the requirement.</i></p> <p><i>a) At time of certification, all associated variations to ICA are produced, verified and are provided or made available to the Agency, if requested.</i></p> <p><i>b) It is assumed that if all associated variations to ICA are available prior to approval of the minor change, they are then furnished to operator/owner and any other person required to comply with any of those instructions at EIS the latest, in accordance with 21.A.107.</i></p> <p><i><b>c) Any other acceptable procedure ensuring ICA delivery prior EIS can be considered.</b></i></p>	No	Yes	Partially accepted	<p>It is assumed, that the comment relates to section 3.3.</p> <p>Wording amended to a less restrictive language:</p> <p><i>“To minimize the risk of incomplete variations to ICA <del>minimize the administrative workload of all involved parties,</del> the availability of the final variations to ICA at time of the design approval is the <del>only</del> expected way for applicants to comply with the requirement.”</i></p> <p>As stated on the front page, this cert. memo. is intended to provide guidance and, as non-binding material, may provide complementary information and guidance for compliance demonstration.</p>

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7	GE Aviation			This document reflects the options GE Aviation has exercised in the past and provides clarification and guidance on the completeness and timely availability aspect of Instructions for Continued Airworthiness (ICA). One observation that was not reflected in EASA Proposed CM No.: Proposed CM–ICA-001 Issue 01 is that there is no mention of switching between the three options once the program starts to accommodate program changes. GE suggests that wording be added to state that as the program evolves it may be necessary to modify the proposal and that all proposed modifications shall be coordinated with the agency.				Accepted	Some language has been added under para. 3.1.  “An applicant may want to switch between the three options described below. Once the certification programme starts, it may be necessary to modify the initially selected option to accommodate program changes. All such changes shall be coordinated with the agency.”
8	FAA, Engine & Propeller Directorate	Either in an Introduction or in section 4	Either page 1 or page 13	While the first issue of CM-ICA-001 clearly states EASA’s expectations for the completeness and timely availability of ICAs, it is an opportunity to make applicants aware that other certifying agencies have additional and different requirements for ICAs. Specifically regarding the FAA, option 3 is not allowed and that FAA CFR 33.4, Appendix A has additional ICA requirements affecting the need for overhaul manuals and ETOPS requirements. With applicants (and especially new applicants) expecting to compete in a global marketplace, they need to prepare rather than react to additional and different requirements.	Please add a statement to the affect that, "Design approval applicants/holders considering their products for international agencies’ validation must also comply with the ICA requirements of those agencies. These regulatory requirements are on the agencies’ public websites identified as type validation principles, validation items, and/or standards differences. By identifying and addressing these additional regulatory requirements during certification, the validation process will move forward more efficiently."	Yes	No	Partially accepted	Some language has been added under para. 3.  “As generally applicable to any certification requirement, design approval applicants/holders may have also the need to take into account the relevant ICA requirements of applicable validation authority.”
9	Embraer	3.1.2 a)	6/13	Is not clear when ALS in not an option to establish compliance.  “For the ALS: At time of the design approval, the applicant submits the ALS for approval. Any ALS content, which is incomplete, not yet demonstrated, or delayed beyond design approval, requires compensation through an interim limitation to establish compliance within this limitation. It should be noted that a limitation is not always an available option to establish compliance. The interim limitation is to be published and included in the ALS as a temporary operational limit.”	Clarify, with examples, when a limitation is not an available option to establish compliance with ALS.			Partially accepted	Para. is revised to:  “For the ALS: At time of the design approval, the applicant submits the ALS for approval. Any ALS content, which is incomplete, not yet demonstrated, or delayed beyond design approval, requires compensation through an interim limitation to establish compliance within this limitation. <del>It should be noted that a limitation is not always an available option to establish compliance.</del> The interim limitation is to be published and included in the ALS as a temporary operational limit.”
10	Embraer	3.1.2 e)	6/13	“Doubt” is a criteria that could be not clear enough during the process.  "In cases where the Agency has doubts that the applicant/holder can meet the applicable obligations of 21.A.44 to control and support delayed ICA beyond approval, TC/RTC, but until EIS, the Agency can decide to assign a condition for EIS for non-ALS ICA."	The agency should establish some criteria to identify, and show, that the applicant/holder will reach EIS without comply with the obligations of 21.A.44.			Accepted	Some language has been added under para. 3.1.2 e)  “The decision to assign a condition may be based on the applicant’s performance, e.g. that the applicant has already experienced difficulties providing ICA considered necessary at time of design approval or has failed before on a different project to meet his commitment to complete ICA prior to EIS or that the applicant/holder has no previously experience with the practice of delaying ICA beyond design approval.”.

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11	Embraer	3.1.3 f) 2.	9-10/10	Is not clear when ALS in not an option to establish compliance.  “For ICA delayed after EIS, 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. A limitation is not always an available compensation to establish compliance.”	Clarify, with examples, when a limitation is not an available option to establish compliance with ALS.			Partially accepted	Refer to comment No. 9.
12	Dassault-Aviation	Section 2	5	As indicated on page 5 of this CM, RMT.0252 is currently working on the same subject. Consequently, the objective of this CM is not understood. Which urgency justifies to issue this CM instead of waiting for the outcome of RMT.0252 ? Industry and Authorities have invested a lot of resources in RMT.0252, and this CM seems to sweep their efforts with a done deal.		Y	N	Noted	This certification memorandum is actually based on RMT.0252 draft material. The final CM will be then revisited by the rulemaking group and translated mainly into AMC/GM. The “early” CM publication was decided on, to standardize/clarify recurrent issues on certification projects/DOA activities, but also to support the bilateral discussions on ICA by clarifying EASA’s policy on an identified regulatory difference with other regulatory systems since 2003.
13	Dassault-Aviation	3	5	It is quite unclear how to address minor modifications defined by a TC holder and approved under its DOA holder privilege. § 3.3 is clearly written with the intent of excluding the TC holders from its scope. Consequently, all activities of a TC holder fall under § 3.1. However, § 3.1 refers to EASA involvement in many places: § 3(preamble), § 3.1.2 (b), (d), (e), (g), § 3.1.3(f), (g), ... How does this fit with the DOA privilege of approving minor modifications ? This CM should not indirectly require to classify major any modification that has an ICA impact and for which the applicant intends to delay the ICA delivery. This would be quite a change to the interpretation of § 21.A.91 which goes beyond the intent of a Certification Memo as identified on the cover page of this CM.	Clarify how is address minor modifications	Y	N	Accepted	Sentence amended under section 3.1.4, last para.:  “For changes to ICA triggered by design changes, typically these procedures follow the same principles as available for TC/RTC, option 1 to 3, however, taking into account relevant privileges, e.g. that a DOA may approve minor changes in accordance with 21.A.263(c)2. “
14	Dassault-Aviation	3	5	Third sub-paragraph says that “The Agency investigation may vary from evaluating a limited sample of the ICA to performing a thorough review of specific parts of the ICA.”  It is not clear whether this sentence applies to any kind of ICA, or only to ICAs which delivery is delayed. In addition, we disagree that the minimal level of EASA involvement is evaluating a limited samples. The minimum involvement should be no evaluation at all. Furthermore, this sentence indirectly implies that the EASA has to be involved as soon as a modification has an ICA impact. This is not true: minor modifications frequently have ICA impact and the EASA is not involved.		N	Y	Accepted	Wording changed into “The depth of the Agency investigation may vary from no involvement or evaluating a limited sample of the ICA to performing a thorough review of specific parts of the ICA.”.
15	Dassault-Aviation	3.1.3(f)(3)	10	The wording of this sentence is complicated and its intent is rather unclear.		Y	N	Accepted	Refer to comment No. 63.



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16	Dassault Aviation	3.1.2(b)	6	<p><i>“ A compliance plan identifying those parts of the ICA which are only to be provided at EIS is produced, submitted and agreed between the applicant and the agency prior to the approval “</i></p> <p><b>DA comment:</b> Need to be clarified , what level of granularity is required ? what do we mean by “ <b>parts of the ICA</b>” ?</p>	Clarify the sentence	Y	N	Partially accepted	Once the applicant has agreed with the Agency what is required at time of approval in accordance with para. d) it becomes clear what could be provided at EIS. A reference was added at the end to the para. b:  “(refer also to para. d) for ICA considered necessary at time of design approval)”
17	Safran Helicopter Engines	3.1.1 (b)	5	The duration between engine certification and the entry into service may be long (several months), therefore, in most cases, the engine manufacturers may generally want to also apply option 2 or 3	Write in the paragraph “especially for CS23/25/CS27/CS29/CS-E products”	yes	no	Partially accepted	Refer to comment No. 33.
18	Safran Helicopter Engines	3.1.3 b) 1	9	The ICA parts allowed to be available after the entry into service shall also include all parts dependent on aircraft systems that are not available at the time of aircraft certification. For example, it may not be possible to provide an adequate engine troubleshooting manual for EIS if the A/C avionics suite does not integrate this function, although the A/C is certificated.	Add at the end of §3.1.3 b) 1: “unless these ICA depend on aircraft systems that are not available at the time of aircraft certification.”	no	yes	Not accepted	While the Agency partially agrees with the comment, the referenced case is considered a too specific topic to be addressed in this cert. memo. The TCH of the engine and TCH of the aircraft the engine is integrated to, have both the requirement to develop troubleshooting information and this require coordination between the two parties. The trouble shooting information should be pending on the design configuration that is available at the time of aircraft certification, which may then evolve over time, pending on the design changes implemented. In the example quoted, if the A/C system is not available for trouble shooting considered required, then this may then require additional tooling or shop work to be performed.
19	Safran Helicopter Engines	3.1.3 h) and i)	10	<p>The vast majority of helicopter owners and operators have no qualification granted by their civil aviation authorities to perform the tasks usually performed in engine repair centers. Why should they have visibility of delayed ICA on repair methods, and why should they receive these ICA 2 years in advance ?</p> <p>Furthermore, the ongoing EASA RMT.0252 (MDM.056) rulemaking activity should question the fact that, according to part 21.A.61, and CS-E 25 (c ) (9), the details of repair methods shall be furnished to the owners/operators (for instance for helicopter engines) even when they are not required to comply with any of the terms of those instructions</p>	<p>Add in the 3.1.3 h) 1) paragraph the underlined part “operator/owner <u>(who are qualified for this type of ICA)</u>”</p> <p>Add in 3.1.3 i) the underlined part “furnished to the owner/operator, <u>who are qualified for this type of ICA</u>”</p>	no	yes	Partially accepted	For the question on repair as part of the ICA, refer to comment No. 23.  Refer also to comment No. 65 on the question who is entitled to receive ICA.
20	Jeff Conner GE Aviation	§ 1.4	5	<p><i>“Entry into Service :</i> <i>Entry into Service (EIS) is defined in the context of this certification memorandum as the delivery of the aircraft, engine or propeller, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later.** “</i></p> <p>Comment: For engines, two dates of delivery could be considered as EIS; the date of delivery to the Airframer or the date of delivery to the Owner/ Operator. The current language in this paragraph does not distinguish between these two dates. Typically the industry has considered EIS as the delivery of the product to the Owner/ Operator.</p>	<p>Revise the definition for Entry into Service to read as follows:</p> <p>Entry into Service : Entry into Service (EIS) is defined in the context of this certification memorandum as the delivery of the aircraft, engine or propeller to the <u>Owner/Operator</u>, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later.**</p>	Yes	No	Accepted	“...to the owner/operator...” added.

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21	Jeff Conner GE Aviation	3.1.3(b)(5)	9	<p><i>“Information on the format in which the delayed ICA after EIS will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information (SBs, SIL, etc.).”</i></p> <p>Comment: This paragraph includes the phrase “or service information”. The inclusion of this phrase 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>Revise the wording in this section to make it clear that service information is not part of ICA unless the service information is incorporated by reference in ICA.</p> <p>Proposal :</p> <p>“Information on the format in which the delayed ICA after EIS will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information <u>incorporated in the ICA</u> (SBs, SIL, etc.).”</p>	No	Yes	Not accepted	<p>It is acknowledged that <u>not</u> all service information is considered ICA.</p> <p>However, DAH can use their service information as a method of making changes to ICA available and to deliver them in a timely manner. Typical publications could include, All Operator Telex, Alert Service Bulletin, Inspection Service Bulletin, Service Bulletin, Operator Information Telex, Service Information Letter, etc.</p> <p>Service information may be used as ICA or may be used as a means of communication, to provide information to the operator other than ICA.</p>
22	Jeff Conner GE Aviation	§ 3.1.3 Last Paragraph	10	<p><i>“To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (maintenance organization), EASA considers that delayed ICA should typically be furnished to the owner/operator 2 years before the actual ICA has to be used, when using normal revisions as a format. However, shorter margins may be acceptable, provided the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but should not be less than 1 year before the ICA has to be used.”</i></p> <p>Comment: Engines may be certified well before the aircraft on which they are to operate are certified. As such, the proposed two years delay to publication of all ICA can include a significant amount of time during which the engines are not in service. Additionally, once a commercial engine enters into service, a significant number of flight hours and flight cycles can accrue in the first two years of service. When these factors are considered, it becomes clear that the proposed “2 years before the actual ICA has to be used” constraint basically requires that complete engine ICA be available when the engine is certified.</p> <p>The intent of Option 3 is to allow TC/RTC holders some flexibility in developing the ICA content related to long lead time scheduled maintenance. We are proposing (1) a change from 2 years to 1 year before the actual ICA has to be used and (2) a change from 1 year to 6 months “shorter margins” before the actual ICA has to be used for furnishing delayed ICA as defined in this paragraph.</p>	<p>Revise this paragraph to read as follows:</p> <p>“To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (maintenance organization), EASA considers that delayed ICA should typically be furnished to the owner/operator <u>1 year</u> before the actual ICA has to be used, when using normal revisions as a format. However, shorter margins may be acceptable, provided the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but should not be less than <u>6 months</u> before the ICA has to be used.”</p>	Yes	No	Not accepted	<p>The para. provides already some flexibility pending on the format/publication means. The proposed 2 years (1 year) are considered a reasonable compromise to allow the timely review and incorporation of the delayed ICA, also in regards to Regulation (EU) No 1321/2014 and its continuing airworthiness requirements (Part-M/Part-145) to review and update the maintenance programme/data.</p>

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23	Jeff Conner GE Aviation	General Comment		Some confusion has occurred recently in the industry regarding whether or not ICA must include repairs for parts referenced in the ICA. While this topic is not addressed directly in this CM, regardless of whether the TC/RTC applicant or holder pursues Option 1, Option 2 or Option 3, we believe EASA should make it clear that “complete” ICA need not include part level repairs. (Part level repairs are typically not developed at the point of TC approval but evolve over time as field experience with a given product grows.) Replacement of unserviceable parts with serviceable parts is an acceptable approach to maintain continued airworthiness.	Add wording to this CM to highlight the fact that, while ICA may contain part level repairs, the absence of part level repairs does not mean that ICA are incomplete.	Yes	No	Noted	The content of ICA is currently discussed in the MDM 056 rulemaking working group and further results are expected and not addressed, yet, in this CM, please refer also to the Terms of References of this task on the EASA website.  Indeed, there is a question when “repair” was/is mentioned in the context of ICA, if the intention was not in the sense of “maintenance” (remove and replace) rather than repair design on part level.
24	Leonardo Helicopters	N/A	N/A	The content and time availability of ICA should be linked to the MRB process	Sometime ICA reported in MM ATA Chpt. 5 is linked to MRBR so that part of ICA time availability should be synchronised with MRBR.	no	yes	Noted	The MRB process may be used to develop (a part of) the scheduling information as required by the applicable certification basis. Accomplishment procedure then need to be developed accordingly. This needs to be synchronized and is part of the overall ICA compliance.
25	Leonardo Helicopters	N/A	N/A	CM document structure is set to address different options compared to different organisations (TCH, STCH, Minor Change Holder, ETSOH).	We deem necessary to introduce the document structure to clarify that different options are presented and their applicability is compared to the different organisations	no	yes	Accepted	Sentence added under section 3: “ <i>The policy structure addresses different options for applicants/holders of TC/RTC (section 3.1.), STC (section 3.2.), Minor Change (section 3.3.), Repair Design (section 3.4.) and ETSO (section 3.5.).</i> ”
26	Leonardo Helicopters	3.1.2 d)	6 of 13	Considering the DOA privileges, the DOA itself could evaluate if a certain ICA is necessary to be provided at the time of certification/approval. There is no clear mention of EASA LOI.	Specify the Agency LOI on this or specify the criteria to establish the LOI (the criteria could be set in the same way of MoC ones)	no	yes	Partially accepted	Compliance plans are proposed by the applicant to be agreed with the Agency. As explained in section 3, this certification memorandum is not intended to “give further details on the rationale for the Level of Involvement (LOI) EASA may request on the ICA compliance, before granting a design approval.”  Refer also to comment 13 for consideration of privileges in the change process.  Please note that 21.A.263(c).3 (privileges to use a statement) is to be replaced by the new obligation 21.A.265(h). Refer to Opinion No 07/2016.
27	Leonardo Helicopters	3.1.3	10 of 13	Availability of ICA, other than ALS, should be planned on the basis of assumed task complexity and 1 or 2 years could be too long. This part of para. is considered too prescriptive.	Change the last part of paragraph in order to focus the attention on criteria to be used for selecting the right deliver period before that ICA has to be used.	no	yes	Not accepted	Refer to comment No. 22.
28	Leonardo Helicopters	3.1.4	12 of 13	First sentence of third part of para. should be followed by comma maybe.		no	yes	Accepted	Comma inserted.
29	Leonardo Helicopters	3.1.4	12 of 13	It is missing to describe the role of DOA privileges	Specify that for those DOA having certain privileges the completeness and time availability could manage DOA itself without EASA involvement	no	yes	Accepted	Refer to comment No. 13

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30	Rolls-Royce	General Comment	Not Applicable	The use of the term “complete ICA” implies an all or nothing approach. In reality the manuals that constitute ICA are live documents that will continually evolve as the product matures. The important requirement therefore is that the ICA manuals are self-consistent and complete at any point in time. For example, in engine overhaul terms, the manuals may be complete and self-consistent and yet initially limit the scope of overhaul, i.e. the scope may initially be limited to module swap only, later widening the scope to include instructions to cover the repair/replacement of assemblies and eventually components. The fact that the overhaul instructions does not include tasks down to component level at the outset does not mean they are not complete – as long as the published ICA is clear on what can and cannot be accomplished. This approach ensures the continued airworthiness of the product is always satisfied, whilst accepting the commercial implications of this approach	Include additional guidance/clarification on the definition of/what constitutes “complete ICA” (at a point in time)	yes	no	Noted	Additional guidance/clarification is currently developed under the RMT.0252 (MDM056) working group.
31	Rolls-Royce	3.1.3 b) 1.	9	Implies that all unscheduled tasks are to be available at EIS. There may be low likelihood unscheduled tasks that could be postponed until after EIS, with right-first-time in mind. The important thing is the ICA (always complete at a point in time) is clear on what can and cannot be accomplished	Perhaps the use of the existing word “should” is intended to allow this flexibility?	no	yes	Noted	This could indeed be a point of discussion when this Certification Memo is practically applied. However, it may be difficult to provide sound criteria and it is considered better to discuss such items on a case by case basis.  As stated on the front page this cert. memo. is intended to provide guidance and, as non-binding material, may provide complementary information and guidance for compliance demonstration.
32	Rolls-Royce	3.1.3 – final paragraph	10	The typical timeframes stated are considered excessive – the essential thing is the owner/operator/maintenance organisation have adequate time to review and incorporate the ICA update	The quoted timeframes should be indicative/targets. The 2 years proposed is considered excessive. 6-12 months would be a more realistic timeframe	no	yes	Not accepted	Refer to comment No. 22.
33	Rolls-Royce	3.1.1 b)	5	Not clear how the “especially for CS23/CS25/CS27/CS29 products” list has been defined	Engine OEM are also likely to apply options 2 or 3 and therefore CS-E could/should be added to the “especially” product list. Suggest the list of products is not included, instead reading “nevertheless it is acknowledged that applicants/holders may want to apply option 2 or 3 for a part of their ICA as stated below”	yes	no	Accepted	Wording changed into “...nevertheless, it is acknowledged that <del>especially for CS23/25/CS27/CS29 products</del> , applicants/holders may want to apply the option 2 or 3 for a part of their ICA as stated below.”.
34	Rolls-Royce	3.1.2 e)	6	Noting option 2 covers ICA at EIS, it is not clear what the “in general” means in the context of the TCDS notation ending “before first entry into service in general”	If the intention is to convey some latitude in the delivery of the ICA for EIS then this needs to be clarified	yes	no	Partially accepted	Note has been simplified to “ <i>Complete Instructions for Continued Airworthiness must be furnished per Commission Regulation (EC) No 748/2012, 21.A.61 before first entry into service in general.</i> Contact EASA for information on the status.”
35	Rolls-Royce	General Comment	Not Applicable	It would be nice if EASA and the FAA could agree on the application of option 3		yes	no	Noted	



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36	Mike Deer – Bell Helicopter	3.6 Who this Certification Memorandum affects	13	All Design Approval Holders/Applicants.	Section 3.6 should affect all EASA Design Approval Holders/Applicants only and this policy should not apply to validations as non-EASA applicants are subject to requirements of their certifying authority.		Yes	Not accepted	In principle this applies to any Design Approval Holder/Applicant seeking for an EASA certificate/approval/authorization. Applicable work instructions or bilateral agreements need to be taken into account.
37	The Boeing Company - Boeing Commercial Airplanes	Flowchart A	8	For the decision diamond labeled “ALS complete prior to approval, TC/RTC? [para. a)]”, the YES condition link arrow is pointing to the “Compliance plan, commitment [para. b) c)]” step.	<p>Proposed change:</p> <p>For the decision diamond labeled “ALS complete prior to approval, TC/RTC? [para. a)]”, the YES condition link arrow <b>should point to the “Necessary ICA at time of certification completed prior to approval, TC/RTC and ICA sufficiently controlled? [para. d) e)]” decision diamond.</b></p> <p>Justification:</p> <p>3.1.2 b) states “A compliance plan identifying those parts of the ICA which are only to be provided at EIS is produced, submitted and agreed between the applicant and the Agency prior to the approval.” Therefore, if ALS is complete prior to approval, a compliance plan and associated commitment is not required.</p>			Not accepted	3.1.2 b) states “A <i>compliance plan identifying those parts of the ICA which are only to be provided at EIS is produced, submitted and agreed between the applicant and the Agency prior to the design approval.</i> ” This endorse all ICA (not ALS, only). Therefore, even with the ALS complete prior to design approval, a compliance plan and associated commitment is still required. He step in the flow chart regarding the ALS is reflecting the guidance of para 3.1.2.a) and is accomplished independently of the compliance plan.
38	The Boeing Company - Boeing Commercial Airplanes	3.1.3 b)	9	“A detailed plan identifying those parts of the ICA which are to be provided prior to and after EIS.”	<p>Proposed change:</p> <p>“A detailed compliance plan identifying those parts of the ICA which are to be provided prior to and after EIS.”</p> <p>Justification:</p> <p>Clarity and consistency with corresponding Flowchart B on page 11.</p>			Accepted	“ <i>compliance</i> ” added.
39	The Boeing Company - Boeing Commercial Airplanes	3.1.3 h)	10	“...This information is considered then ICA information itself.”	<p>Proposed change:</p> <p><del>“This information is considered then ICA information itself.</del> This visibility of information is then considered to be the ICA information itself.”</p> <p>Justification:</p> <p>The word “visibility” should be inserted to clarify specifically what information is to be considered ICA information.</p>			Accepted	“ <i>visibility</i> ” added.

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40	The Boeing Company - Boeing Commercial Airplanes	Flowchart B	11	For the decision diamond labeled “ALS complete prior to approval, TC/RTC? [para. a)]”, the YES condition link arrow is to the “Detailed compliance plan, commitment and procedure [para. b) c) d)]” step.	<p>Proposed change:</p> <p>For the decision diamond labeled “ALS complete prior to approval, TC/RTC? [para. a)]”, the YES condition link arrow <u>should point to the “Necessary ICA at time of certification completed prior to approval, TC/RTC and ICA sufficiently controlled (DOA, ADOA)? [para. e) f)]” decision diamond.</u></p> <p>Justification:</p> <p>3.1.3 b) states “A detailed plan identifying those parts of the ICA which are to be provided prior to and after EIS.” Therefore, if ALS is complete prior to approval, a detailed compliance plan, commitment and associated procedure is not required. Similar to Comment #1.</p>			Not accepted	Refer to comment No. 37.
41	The Boeing Company - Boeing Commercial Airplanes	Flowchart B	11	Flowchart element labels are not consistent with source paragraphs – “For ICA until ...” and “For ICA after ...”	<p>Proposed change:</p> <p>Change “For ICA <u>until</u> EIS” ...to “For ICA <u>delayed until</u> EIS...” and</p> <p>Change “For ICA <u>after</u> EIS”... to “For ICA <u>delayed after</u> EIS...”.</p> <p>Justification:</p> <p>Flowchart element labels at two locations do not capture “ICA delayed...” as communicated in 3.1.3 e) 1. and 2.</p>			Accepted	“For ICA <u>until</u> EIS” changed to “For ICA <u>delayed until</u> EIS...” and “For ICA <u>after</u> EIS” changed to “For ICA <u>delayed after</u> EIS...”.
42	Safran Aircraft Engines	§ 1.4	5	<p>“Entry into Service :</p> <p>Entry into Service (EIS) is defined in the context of this certification memorandum as the delivery of the aircraft, engine or propeller, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later.** “</p> <p>Comment: For engines, two dates of delivery could be considered as EIS; the date of delivery to the Airframer or the date of delivery to the Owner/ Operator. The current language in this paragraph does not distinguish between these two dates. Typically the industry has considered EIS as the delivery of the product to the Owner/ Operator.</p>	<p>Revise the definition for Entry into Service to read as follows:</p> <p>“Entry into Service :</p> <p>Entry into Service (EIS) is defined in the context of this certification memorandum as the delivery of the aircraft, engine or propeller to the <u>Owner/Operator</u>, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later.** “</p>	Yes	No	Accepted	Refer to comment No. 20.
43	Safran Aircraft Engines	§ 3.1.1 ((b)	5	<p>“In many cases there is only a short time between the approval and the first EIS, nevertheless, it is acknowledged that especially for CS23/25/CS27/CS29 products, applicants/holders may want to apply option 2 or 3 for a part of their ICA as stated below.”</p> <p>Comment: Option 2 &amp; 3 are often used by the engine OEM, more easily than for the aircraft/helicopter OEM as it use to be months between engine certification and aircraft/helicopter EIS.</p>	<p>Revise this paragraph to read as follows:</p> <p>“In many cases there is only a short time between the approval and the first EIS, nevertheless, it is acknowledged that especially for CS23/<u>CS25</u>/CS27/CS29/<u>CSE/CSP</u> products, applicants/holders may want to apply option 2 or 3 for a part of their ICA as stated below.”</p>	Yes	No	Partially accepted	Refer to comment No. 33.

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44	Safran Aircraft Engines	§ 3.1.3 (b)(5)	9	<p><i>“Information on the format in which the delayed ICA after EIS will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information (SBs, SIL, etc.).”</i></p> <p>Comment: This paragraph includes the phrase “or service information”. The inclusion of this phrase 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>Revise the wording in this section to make it clear that service information is not part of ICA unless the service information is incorporated by reference in ICA.</p> <p>Proposal :</p> <p>“Information on the format in which the delayed ICA after EIS will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information <u>incorporated in the ICA</u> (SBs, SIL, etc.).”</p>	No	Yes	Not accepted	Refer to comment No. 21.
45	Safran Aircraft Engines	§ 3.1.3 Last Paragraph	10	<p><i>“To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (maintenance organization), EASA considers that delayed ICA should typically be furnished to the owner/operator 2 years before the actual ICA has to be used, when using normal revisions as a format. However, shorter margins may be acceptable, provided the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but should not be less than 1 year before the ICA has to be used.”</i></p> <p>Comment: Engines may be certified well before the aircraft on which they are to operate are certified. As such, the proposed two years delay to publication of all ICA can include a significant amount of time during which the engines are not in service. Additionally, once a commercial engine enters into service, a significant number of flight hours and flight cycles can accrue in the first two years of service. When these factors are considered, it becomes clear that the proposed “2 years before the actual ICA has to be used” constraint basically requires that complete engine ICA be available when the engine is certified.</p> <p>We are proposing (1) a change from 2 years to 1 year before the actual ICA has to be used and (2) a change from 1 year to 6 months before the actual ICA has to be used for furnishing delayed ICA in this paragraph.</p>	<p>Revise this paragraph to read as follows:</p> <p>“To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (maintenance organization), EASA considers that delayed ICA should typically be furnished to the owner/operator <u>1 year before the first programmed shop visit of the product</u>, when using normal revisions as a format. However, shorter margins may be acceptable, provided the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but should not be less than <u>6 months before the first programmed shop visit of the product.</u>”</p>	No	Yes	Not accepted	Refer to comment No. 22.
46	Safran Aircraft Engines	General comment	/	<p>Comment: Some confusion has occurred recently in the industry regarding whether or not ICA must include repairs for parts referenced in the ICA. While this topic is not addressed directly in this CM, regardless of whether the TC/RTC applicant or holder pursues Option 1, Option 2 or Option 3, we believe EASA should make it clear that “complete” ICA need not include part level repairs. (Part level repairs are typically not developed at the point of TC approval but evolve over time as field experience with a given product grows.) Replacement of unserviceable parts with serviceable parts is an acceptable approach to maintain continued airworthiness.</p>	<p>Add wording to this CM to highlight the fact that, while ICA may contain part level repairs, the absence of part level repairs does not mean that ICA are incomplete.</p>	Yes	No	Noted	Refer to comment No. 23.

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47	CFM International	§ 1.4	5	<p><i>“Entry into Service :</i>  <i>Entry into Service (EIS) is defined in the context of this certification memorandum as the delivery of the aircraft, engine or propeller, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later.** “</i></p> <p>Comment: For engines, two dates of delivery could be considered as EIS; the date of delivery to the Airframer or the date of delivery to the Owner/ Operator. The current language in this paragraph does not distinguish between these two dates. Typically the industry has considered EIS as the delivery of the product to the Owner/ Operator.</p>	<p>Revise the definition for Entry into Service to read as follows:            Entry into Service :            Entry into Service (EIS) is defined in the context of this certification memorandum as the delivery of the aircraft, engine or propeller to the <u>Owner/Operator</u>, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later.**</p>	Yes	No	Accepted	Refer to comment No. 42.
48	CFM International	§ 3.1.3 (b)(5)	9	<p><i>“Information on the format in which the delayed ICA after EIS will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information (SBs, SIL, etc.).”</i></p> <p>Comment: This paragraph includes the phrase “or service information”. The inclusion of this phrase 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>Revise the wording in this section to make it clear that service information is not part of ICA unless the service information is incorporated by reference in ICA.            Proposal :  <i>“Information on the format in which the delayed ICA after EIS will be made available on time (e.g. regular Revisions or Temporary Revisions (TRs) or service information <u>incorporated in the ICA</u> (SBs, SIL, etc.).”</i></p>	No	Yes	Not accepted	Refer to comment No. 21.



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49	CFM International	§ 3.1.3 Last Paragraph	10	<p><i>“To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (maintenance organization), EASA considers that delayed ICA should typically be furnished to the owner/operator 2 years before the actual ICA has to be used, when using normal revisions as a format. However, shorter margins may be acceptable, provided the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but should not be less than 1 year before the ICA has to be used.”</i></p> <p>Comment: Engines may be certified well before the aircraft on which they are to operate are certified. As such, the proposed two years delay to publication of all ICA can include a significant amount of time during which the engines are not in service. Additionally, once a commercial engine enters into service, a significant number of flight hours and flight cycles can accrue in the first two years of service. When these factors are considered, it becomes clear that the proposed “2 years before the actual ICA has to be used” constraint basically requires that complete engine ICA be available when the engine is certified.</p> <p>We are proposing (1) a change from 2 years to 1 year before the actual ICA has to be used and (2) a change from 1 year to 6 months before the actual ICA has to be used for furnishing delayed ICA in this paragraph.</p>	<p>Revise this paragraph to read as follows:</p> <p>“To allow the timely review and incorporation of a delayed part of the ICA by the owner/operator (maintenance organization), EASA considers that delayed ICA should typically be furnished to the owner/operator <u>1 year before the first programmed shop visit of the product</u>, when using normal revisions as a format. However, shorter margins may be acceptable, provided the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but should not be less than <u>6 months before the first programmed shop visit of the product</u>.”</p>	No	Yes	Not accepted	Refer to comment No. 22.
50	CFM International	General comment	/	<p>Some confusion has occurred recently in the industry regarding whether or not ICA must include repairs for parts referenced in the ICA. While this topic is not addressed directly in this CM, regardless of whether the TC/RTC applicant or holder pursues Option 1, Option 2 or Option 3, we believe EASA should make it clear that “complete” ICA need not include part level repairs. (Part level repairs are typically not developed at the point of TC approval but evolve over time as field experience with a given product grows.) Replacement of unserviceable parts with serviceable parts is an acceptable approach to maintain continued airworthiness.</p>	<p>Add wording to this CM to highlight the fact that, while ICA may contain part level repairs, the absence of part level repairs does not mean that ICA are incomplete.</p>	Yes	No	Noted	Refer to comment No. 23.

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51	Airbus	Regulatory requirement(s)	page 1/13	<p>The initial and continuing airworthiness processes are closely linked to each other: point 21.A.173 defines the prerequisite for issuing a CofA and point M.A.101 establishes the objective of continuing airworthiness, which is to “ensure that airworthiness [evidenced by the CofA] is maintained”.</p> <p>Some of the contents of this Certification Memorandum has an impact on the person or organisation responsible for the aircraft continuing airworthiness management (unfortunately, forgetting the impact on Approved Maintenance Organisations, AMO), and justify the need for properly manage the interface between the subject processes. To this end, the list of requirements originating from the continuing airworthiness process may also help.</p>	It could be appropriate to add Regulation (EU) No 1321/2014 and its continuing airworthiness requirements (Part-M/Part-145) related to ICA.	Yes	No	Accepted	Reference added under Regulatory requirement(s) and section 3.1.3, last para.: “...(refer also to Regulation (EU) No 1321/2014 and its requirements (Part-M/Part-145) related to ICA)...”
52	Airbus	Section 1.4.	page 4/13	<p>Airbus takes note of the ICA definition originating from the ongoing EASA RMT.0252 (MDM.056) rulemaking activity:</p> <p>“Instructions for Continued Airworthiness are the instructions and information that are necessary for the continued airworthiness of the aircraft, engine, propeller, parts and appliances, which must be developed and/or referenced by the Design Approval Holder in accordance with the applicable Certification Basis or Standard.”</p> <p>Although this definition is in line with the paragraph H25.1 of the CS25 Appendix H, anyone should keep in mind that the final objective of the ICA remains the maintenance of the airworthiness standard of the aircraft type certification, as described in the Annex 1 of the Basic Regulation.</p> <p>To this respect and from the CAMO standpoint, the ICA are produced to enable organisations and personnel involved in continuing airworthiness to maintain the aircraft in an airworthy condition.</p>		Yes	No	Noted	

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53	Airbus	Section 1.4.	page 5/13	<p>The options 2 and 3 specified in this Certification Memorandum address cases of ICA made available after the issuance of the related design approval. For such cases, a criterion is introduced: the EIS. This EIS is defined as “the delivery of the aircraft, engine or propeller, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later”.</p> <p>It is believed that this definition is not appropriate for ICA related to STC, changes to TC, and repair designs.</p>	<p>The definition of Entry Into Service (EIS) should also fits with the options 2 and 3 applied to ICA related to STC, changes to TC, and repair designs.</p> <p>The following definition is proposed:</p> <p>“Entry into Service (EIS) is defined in the context of this certification memorandum as:</p> <ul style="list-style-type: none"> <li>For TC-related ICA: The delivery from the production line(s) of the first aircraft, engine or propeller, or the issue of the first certificate of airworthiness (CofA) of the (affected) aircraft, whichever occurs later.</li> </ul> <p>For STC, changes to TC, and repair designs: The date of first flight following the embodiment of the STC, change to TC, or repair design, of the first aircraft to fly within the fleet of affected aircraft.”</p>	Yes	No	Partially accepted	Definition is amended to: “Entry into Service (EIS) is defined in the context of this certification memorandum as the delivery of the first (affected) aircraft, engine or propeller ...”
54	Airbus	Section 3.1. Section 3.1.1.	page 5/13	<p>The structure of this memo is built in accordance with the different natures of applicants/holders. The section 3.1. discusses the case of ICA produced by TC/RTC applicants/holders. The section 3.1. title should, therefore, list in brackets all possible design approvals that such applicants/holders can obtain, or grant under privileges (i.e. not only the TC/RTC).</p> <p>It is proposed to delete the explicit reference to administrative workload to keep the focus only on the objective.</p>	<p>It is proposed to amend these sections to read:</p> <p>“3.1. Completeness and timely availability of ICA for Type Certificate (TC) and Restricted Type Certificate (RTC) applicants/holders (TC/RTC, approval of minor &amp; major changes to TC/RTC, STC, and minor &amp; major repair design approvals)</p> <p>3.1.1. Option 1 – Complete ICA available at time of issuance of the approval (TC/RTC)</p> <p>a) To minimize the administrative workload of all involved parties, the availability of ICA at time of issuance of the approval, especially for changes, is EASA’s preferred way for applicants to comply with for ICA with the related requirements, but (i.e. without using the provision to delay certain parts of their ICA beyond EIS).</p> <p>b) In many cases, frequently, there is only a short time between the issuance of the approval and the first EIS, nevertheless, it is acknowledged that especially for CS23/25/CS27/CS29 products, applicants/holders may want to apply the option 2 or 3 for a part of their ICA, in particular for products designed in accordance with CS23/25/27/29 as stated below.”</p>	Yes	No	Partially accepted	<p>The structure of the Cert. Memo has been stressed under an additional para. under section 3, refer to comment No. 25.</p> <p>The section has been revised to:</p> <p>“a) To minimize the risk of incomplete ICA administrative workload of all involved parties, the availability of ICA at time of the design approval, especially for changes, is EASA’s preferred way for applicants to comply for with ICA with the related requirements, but without using the provision to delay certain parts of their ICA beyond EIS.</p> <p>b) With all ICA available at time of design approval, they are then also all furnished/made available to operator/owner and made available to any other person required to comply with any of those instructions in accordance with 21.A.21(c)4, 21.A.44 and with 21.A.61, but without using the provision to delay certain part of their ICA beyond EIS.</p> <p>bc) In many cases, frequently, there is only a short time between the design approval and the first EIS, nevertheless, it is acknowledged that especially for CS23/25/CS27/CS29 products, applicants/holders may want to apply the option 2 or 3 for a part of their ICA as stated below.”</p> <p>refer also to comment No. 17, 33, 43, 54.</p>
55	Airbus	Section 3.1.2.	page 6/13	<p>Reference to “non-ALS ICA” is introduced only at the step of subsection e). Can it be concluded that all previous subsections relate to ALS?</p> <p>It is believed that the structure of this section deserves an amendment: the subsection a) begins with “for the ALS:”. The situation is ambiguous for the other subsections, except subsection e), which refers to “non-ALS ICA”..</p>	<p>It would be advisable to describe the case of the ALS in the subsection a) and the case of the other ICA in a subsection b). Then, the contents of the existing subsections should be appropriately distributed in the subsections a), b) or both a) and b).</p>	Yes	No	Partially accepted	<p>Para. a) has been amended to read:</p> <p>“a) For the ALS, as part of the type design, notwithstanding selection of option 2: ...”</p> <p>To stress that para a. is applicable by all means to the ALS.</p>

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56	Airbus	Section 3.1.2.	page 6/13	<p>The subsection a)1. identifies a typical application of the Option 2 to be the case when full scale fatigue testing results are not available at time of design approval. In Airbus opinion, this data is not available until years after EIS and thus this is a typical case for Option 3.</p> <p>For Option 2, a more realistic case is the determination of the theoretical (and conservative) fatigue-related ICA to satisfy 25.571. These ICA remain valid until the results of the full scale fatigue tests become available.</p>	Could the example given in the subsection a)1. be used in the section 3.1.3. (Option 3) and replaced by the determination of the theoretical (and conservative) fatigue-related ICA?	Yes	No	Partially accepted	Refer to comment No. 55.
57	Airbus	Section 3.1.2.	page 6/13	<p>The term “certification” may be used in different contexts. The term “approval” seems better adapted to this one.</p>	<p>It is proposed to amend the subsection d) to read:</p> <p>“d) ICA considered necessary at time of <del>certification</del> <b>approval</b> to demonstrate compliance with the certification basis are provided or made available at least in a format which defines the data and content. Further, the format at time of <del>certification</del> <b>approval</b> offers the same understanding of the data and content as the final published format.</p> <p><del>1-</del> The applicant should agree with the Agency, in a compliance plan, on all ICA necessary at the time of <del>certification</del> <b>approval</b>. EASA typically differentiates between ICA produced for general compliance with generic requirements (e.g. in the Appendix H to CS25, “remove and install procedures”) versus ICA for compliance with a specific requirement Further, the Agency may also request a sample of the ICA for compliance with generic requirements.”</p>	Yes	No	Accepted	<p>“Certification” changed to “approval”.</p> <p>Further, under section 3.1.3:</p> <p>“e) ICA considered necessary at time of <del>certification</del> <b>design approval</b>, as per Option 2 d).”</p>
58	Airbus	Section 3.1.2.	page 6/13	<p>With respect to subsection d), this Certification Memorandum does not clearly explain what is meant by “format which defines the data and content”. Earlier in this Certification Memorandum, reference has been made to ALS content. Is it this content that is discussed? What does “data” refer to?</p>	Could the Agency clarify the meaning of “[...] in a format which defines the data and content”? (maybe using an example or a template)	Yes	No	Partially accepted	<p>Text amended to clarify the intention:</p> <p>“ICA considered necessary at the time of <del>certification</del> <b>design approval</b> to demonstrate compliance with the certification basis are provided or made available <del>at least</del> in a format that <del>which</del> adequately defines the data <del>and content</del>. Furthermore, the way the data <del>format</del> is presented at the time of <del>certification</del> <b>design approval</b> offers the same understanding of the data <del>and content</del> as in the final published format.”</p>
59	Airbus	Section 3.1.2.	page 6/13	<p>With respect to subsection d), this Certification Memorandum does not provide the reasons behind the following statement: “EASA typically differentiates between ICA produced for general compliance with generic requirements (e.g. in the Appendix H to CS25, “remove and install procedures”) versus ICA for compliance with a specific requirement”.</p>	For sake of understanding, the Agency should clarify (with due consideration for the impact on persons and organisations downstream) why it differentiates between ICA produced for general compliance with generic requirements versus ICA for compliance with a specific requirement.	Yes	No	Accepted	<p>It is agreed that the statement provided under Section 3.1.2. may be considered inconsistent with the one provided at the end of Section 3, EASA Certification Policy.</p> <p>Therefor the statement is replaced by “As indicated under Section 3, the Agency investigation may vary from no involvement or evaluating a limited sample of the ICA to performing a thorough review of specific parts of the ICA.”</p>



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60	Airbus	Section 3.1.2.	page 6/13	<p>The term TCDS stands for “Type Certificate Data Sheet”.</p> <p>The term “in general” has been found confusing, as well. The meaning should be explained and the cases detailed.</p>	<p>It is proposed to amend the subsection e) to read:</p> <p>“e) In cases where the Agency has doubts that the applicant/holder can meet the applicable obligations of 21.A.44 to control and support delayed ICA beyond approval, TC/RTC, but until EIS, the Agency can decide to assign a condition for EIS for non-ALS ICA.</p> <p>1- As a condition for EIS, a notation should be included into the Type <del>Certification</del> Certificate Data Sheet (TCDS) as a result of these pending issues under the ICA paragraph as follows:</p> <p>“Note: Complete Instructions for Continued Airworthiness must be furnished per Commission Regulation (EC) No 748/2012, 21.A.61 before first entry into service <u>in general</u>. Contact EASA for information on the status.””.</p>	Yes	No	Partially accepted	<p>“Type-Certification Certificate Data Sheet (TCDS)” has been corrected</p> <p>The Note has been amended, refer to comment No. 34.</p>
61	Airbus	Section 3.1.2.	page 7/13	<p>With respect to subsection g), the term “certifying authority” has been found ambiguous.</p>	<p>The Agency should clarify the meaning of “certifying authority”. (State of Design or State of Registry)</p>	Yes	No	Partially accepted	<p>“certifying authority” is replaced by “Agency”</p>
62	Airbus	Section 3.1.3.	page 9/13	<p>The subsection a)1. of section 3.1.2. identifies a typical application of the Option 3, i.e. the case when full scale fatigue testing results are not available at time of design approval. In Airbus opinion, this data is not available until years after EIS and thus this is a typical case for Option 3.</p>	<p>Could the example given in the subsection a)1. of section 3.1.2. be used in the section 3.1.3. (e.g. in paragraph a))?</p>	Yes	No	Partially accepted	<p>Refer to comment No. 55.</p>
63	Airbus	Section 3.1.3.	page 10/13	<p>The subsection f) discusses the possible compensations for the doubts the Agency may have about the applicant ability to meet the obligations set in point 21.A.44. The first two compensations are understood.</p> <p>The third one has been found confusing. Two interpretations have been reported (by different readers):</p> <ul style="list-style-type: none"> <li>– The approval is not granted because the consequential operational impact is considered excessive, or</li> <li>– The fact to not approve is considered excessive.</li> </ul>	<p>The Agency should clarify the meaning of the third compensation in subsection f).</p>	Yes	No	Partially accepted	<p>The para. has been removed, as the two previous compensations are considered sufficient as enforcement tools.</p>

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64	Airbus	Section 3.1.3.	page 10/13	<p>The terms ‘continued airworthiness’ and ‘continuing airworthiness’, or their derivatives, are frequently used in regulation materials. Either both terms have the same meaning and only one term should be used for sake of simplicity/clarity, or each term refers to a different aspect of airworthiness and distinctive definitions should be officially published.</p> <p>The term ‘continuing airworthiness’ is defined in the Regulation (EU) No 1321/2014 as “all of the processes ensuring that, at any time in its operating life, the aircraft complies with the airworthiness requirements in force and is in a condition for safe operation”.</p> <p>Experienced engineers usually make the connection between ‘continuing airworthiness’ and ‘continued airworthiness’ through the link existing between CAMO and AMO, on one hand, and Design Approval Holders (DAH) and manufacturers, on the other hand. Typically, it may be considered that the term ‘continued airworthiness’ covers the processes implemented by the DAH and manufacturers aiming at addressing the occurrences, which cause or might cause adverse effects on the continuing airworthiness of the aircraft or the serviceability of both operational and emergency equipment covered by the design approval.</p> <p>Therefore, it seems appropriate to keep both terms from the technical standpoint as they have not the same meaning.</p> <p>In the penultimate paragraph of section 3.1.3., it is believed that reference should be made to ‘continuing airworthiness’.</p>	<p>It is proposed to amend the penultimate paragraph to read:</p> <p>“This is in order to satisfy the Agency that such a delayed publication will not have an adverse effect on the <del>continued</del> continuing airworthiness of any individual aircraft <del>or the complete fleet.</del>”</p>	Yes	No	Accepted	<p>Wording amended into: “This is in order to satisfy the Agency that such a delayed publication will not have an adverse effect on the <del>continued</del> continuing airworthiness of any individual aircraft <del>or the complete fleet.</del>”</p>
65	Airbus	Section 3.1.3.	page 10/13	<p>The first sentence of the last paragraph does not reflect correctly the involvement of Regulation (EU) No 1321/2014 stakeholders: owners/operators are not necessarily approved to perform maintenance.</p>	<p>It is proposed to amend the first sentence of the last paragraph to read:</p> <p>“To allow the timely review and incorporation of a delayed part of the ICA by the <del>owner/operator</del> person or organisation responsible for the aircraft continuing airworthiness (and the approved maintenance organizations), EASA considers that delayed ICA should typically be furnished to the <del>owner/operator</del> person or organisation responsible for the aircraft continuing airworthiness and any other person or organisation required to comply with any of the terms of those instructions 2 years before the actual ICA has to be used, when using normal revisions as a format.”</p>	Yes	No	Partially accepted	<p>Text changed to</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), EASA considers that delayed ICA should typically be made available <del>furnished to the owner/operator</del> 2 years before the actual ICA has to be used, when using normal revisions as a format.”</p> <p>To whom, in detail, the ICA must be furnished/made available is currently discussed in the MDM 056 rulemaking working group and further results (AMC/GM) are expected and not, yet, incorporated into this CM, please refer also to the Terms of References of this task on the EASA website.</p>

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66	Airbus	Section 3.1.3.	page 10/13	It is believed that the contents of the last two paragraphs of this section deserve more emphasis.	It is proposed to introduce the following text at the end of section 3. EASA Certification Policy:  “This Certification Memorandum aims in particular at ensuring that when a publication is delayed, it 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 person or organisation responsible for the aircraft continuing airworthiness and the approved maintenance organisations, the EASA considers that delayed ICA should typically be furnished to the end users sufficiently before the actual ICA has to be used, when using normal revisions as a format.”	Yes	No	Partially accepted	First para. amended. Refer to comment No. 44.
67	Airbus	Section 3.2.	page 12/13	The first sentence of this section begins with “in principle”.	Can the Agency explain why “in principle” has been introduced?  Should the first sentence be “The principles of the three options described in this certification memorandum for ICA resulting from TC/RTC approvals are also applicable to STC-related ICA.”?	Yes	No	Accepted	Text amended to:  <del>“In principle”</del> <i>The principles of the 3 options described...</i>
68	Airbus	Section 3.2.	page 12/13	The term “in most cases” in lieu of “in general” would be more appropriate.	It is proposed to amend the note to read:  “Note: Complete Instructions for Continued Airworthiness must be furnished per Commission Regulation (EC) No 748/2012, 21.A.120A before first entry into service in <del>general</del> <b>most cases</b> . Contact EASA for information on the status.”	Yes	No	Partially accepted	Refer to comment No. 34.
69	Airbus	Section 3.2.	page 12/13	It is proposed to delete the explicit reference to administrative workload to keep the focus only on the objective.	It is proposed to amend this section to read:  “Further, <del>to minimize the administrative workload of all involved parties,</del> the availability of ICA at time of <del>issuance of</del> the approval (para. 3.1.1 of this certification memorandum, option 1) for STCs, is EASA’s preferred way to comply with the requirements.”	Yes	No	Partially accepted	Text changed to:  “To minimize the risk of incomplete variations to ICA, EASA will normally insist on ICA for STCs being made available prior to EIS, at the latest (para. 3.1.2 of this certification memorandum, option 2).  <del>Further, to minimize the administrative workload of all involved parties,</del> the availability of ICA at time of the design approval (para. 3.1.1 of this certification memorandum, option 1) for STCs, is EASA’s preferred way to comply with the requirements.

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70	Airbus	Section 3.3.	page 12/13	<p>The section 3.3. refers to the term “overhaul or other forms of heavy maintenance”. The use of the term “overhaul” in this section may be misleading. Indeed, some minor changes may introduce a recommended overhaul, e.g. for a check valve. Although this example may not illustrate properly the meaning of the term in the context of section 3.3, aiming at referring to important overhaul at aircraft level, it nevertheless highlights that it could be subject to multiple interpretations.</p> <p>It is therefore suggested to delete the reference to the term “overhaul” and to keep only “heavy maintenance”, although the definition as well as the criteria allowing to differentiate maintenance from heavy maintenance are missing.</p>	<p>It is proposed to amend this section to read:</p> <p>“As per 21.A.91, it is not expected that a Minor Change introduces any form of <del>overhaul or other forms of</del> heavy maintenance. Therefore, there is no provision for Minor Changes in 21.A.107 to delay ICA beyond EIS for items dealing with <del>overhaul or other forms of</del> heavy maintenance.”</p>	Yes	No	Noted	<p>“... <i>it is not expected</i> that a Minor Change introduces any form of overhaul or other forms of heavy maintenance.”, the wording is considered adequate to address the concern raised in the comment. The para. provides one of the rational why there is no provision for Minor Changes in 21.A.107 to delay ICA beyond EIS.</p>
71	Airbus	Section 3.3.	page 13/13	<p>It is proposed to delete the explicit reference to administrative workload to keep the focus only on the objective.</p> <p>Refer to Airbus comment on the need to replace the term “certification” with “approval”.</p>	<p>It is proposed to amend this section to read:</p> <p>“[...] <del>To minimize the administrative workload of all involved parties,</del> The availability of the final variations to ICA at time of the approval is the only way for applicants to comply with the requirement.</p> <p>a) At time of <del>certification</del> approval, all associated variations to ICA are produced, verified and are provided or made available to the Agency, if requested. [...]”.</p>	Yes	No	Partially accepted	<p>Text changed to:</p> <p><i>“To minimize the administrative workload of all involved parties the risk of incomplete variations to ICA, the availability of the final variations to ICA at time of the design approval of the change is the only expected way for applicants to comply with the requirement.</i></p> <p>a) <i>At time of certification approval of the minor change, all associated variations to ICA are produced, verified and, in case the Agency is involved, are provided or made available to the Agency, if requested.”.</i></p>
72	Airbus	Section 3.4.	Page 13/13	<p>The term “return to service” has been found confusing.</p>	<p>It is proposed to amend this section to read:</p> <p>“21.A.449 (a) includes currently two provisions to delay ICA beyond <del>return to service</del> the certification of maintenance (issuance of the Certificate of Release to Service). [...]”.</p>	Yes	No	Not accepted	<p>Language is kept to be in line with AMC 20-20.</p>
73	G. Di Antonio (ENAC Structures Expert) <i>Note: These comments were prepared by the Author in his personal capacity. The opinion expressed in these comments are the Author’s own and do not reflect the view of ENAC.</i>	Para. 2	5	<p>With ref. To the sentence:</p> <p>“In addition, certain parts of the ICA are required to demonstrate compliance with the certification basis as part of the design approval according to 21.A.21,...”.</p> <p>Generally one should distinguish between three different points:</p> <ul style="list-style-type: none"> <li>(i) the fact that <u>a complete set of ICA</u> is requested to demonstrate compliance with the certification basis,</li> <li>(ii) the fact that, according to GM 21.A.20(d) , “If so agreed by the Agency, some compliance documentation may be produced after issuance of the final statement of compliance required by 21.A.20(d) ”, and</li> </ul>	<p>“In addition, ICA are required to demonstrate compliance with the certification basis as part of the design approval according to 21.A.21,...”</p>	No	Yes	Partially accepted	<p>Before 2003, when JARs was transferred to the new EU regulatory framework, CS XX.1529 stated “<i>The instructions may be incomplete at type certification if a programme exists to ensure their completion prior to delivery of the first aeroplane or issuance of a certificate of airworthiness, whichever occurs later</i>”.</p> <p>This was then reduced to simply “...that ICA must be prepared...” in the new CSs, considering, at that time, that this is sufficiently covered by the obligations that a design approval applicant/holder need to prepare Instructions for Continued Airworthiness (ICA) for the operators/owners as part of the obligations set in 21.A.44, 21.A.109, 21.A.118A and 21.A.451 (referring to 21.A.61, 21.A.107, 21.A.120A, 21.A.449), adding some additional provision for “long lead” items. (Note: CS-E 25, even refers back to 21.A.61). It was not the intention to require the complete set of ICA at time of design approval</p> <p>Whereas GM 21.A.20(d), under an agreement with the Agency, allows to postpone the production of some compliance documentation, this is considered a more common case for ICA (Non-ALS) for TC/RTC and only certain parts of the ICA are requested at time of design approval.</p>



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				<p>the fact that 21.A.61 allows the furnishing/availability of some ICA be postponed with respect the type certification date.</p> <p>As a matter of fact:</p> <ul style="list-style-type: none"><li>- 21.A.21(b) stipulates that, among others, an applicant is entitled to have a TC issued by the Agency after submitting the declaration referred to in point 21.A.20(d).</li><li>- 21.A.20(a) stipulates that the applicant for a TC “shall demonstrate compliance with the applicable type-certification basis ...”</li><li>- 21.A.20(d) stipulates that „The applicant shall declare that <u>it has demonstrated compliance with the applicable type-certification basis ... according to the certification programme ...</u>”.</li></ul> <p>CS XX.1529 requires that ICA <u>must be prepared</u> in accordance with Appendix A/H.</p> <p>The above implies that, if the airworthiness requirement CS XX.1529 belongs to the certification basis the <u>complete set</u> of ICA, i.e. all the applicable ICA, as required by Appendix A/H, not only “certain parts of ICA”, must be <u>produced</u> in accordance with the relevant Appendix (which is in the “Book 1” of the rule) in order to comply with the airworthiness requirements.</p> <p>This also means that the complete set of ICA, in the form acceptable by the Agency, must be intended as a compliance documentation to demonstrate fully compliance with XX.1529, notwithstanding the fact that 21.A.61 allows the furnishing/availability of some ICA after the type certification date.</p> <p>Finally it is to be noticed that GM 21.A.20(d), under an agreement with the Agency, allows to postpone the production of some <u>compliance documentation</u> after the final declaration of compliance issued by the applicant. And this interpretation could be applied even to some part of the ICA.</p>				<p>However, EASA agrees that additional explanation and interpretation is required and therefore there is a need for this CM.</p> <p>Text has been amended to: “<i>In addition, <del>certain parts of the</del> ICA are required to demonstrate compliance with the certification basis as part of the design approval according to 21.A.21, 21.A.103, 21.A.115 and 21.A.437. Furthermore, the approved airworthiness limitation section (ALS) is part of the type design in accordance to 21.A.31.</i></p> <p><i>This means, on one hand, ICA may be delayed until EIS or even beyond, but, on the other hand, the Agency must be satisfied, that sufficient ICA <del>are</del> must be available at the time of design approval and the remaining ICA will subsequently be provided. <del>for compliance with the certification basis in order to allow issuance of the related design approval.</del></i>”</p>	

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74	G. Di Antonio (ENAC Structures Expert) <i>Note: These comments were prepared by the Author in his personal capacity. The opinion expressed in these comments are the Author's own and do not reflect the view of ENAC.</i>	Para. 2	5	With ref. To the sentence: "This means, on one hand, ICA may be delayed until EIS or even beyond,..."  21.A.61 refers to the "furnishing" of the ICA.  (*) The present comments do not necessarily reflect the official position of the Organization of the Author.	"This means, on one hand, <b>the furnishing of the</b> ICA may be delayed until EIS or even beyond ..."	Yes	No	Not accepted	Refer to comment No. 73.
75	G. Di Antonio (ENAC Structures Expert) <i>Note: These comments were prepared by the Author in his personal capacity. The opinion expressed in these comments are the Author's own and do not reflect the view of ENAC.</i>	Para. 3.1.2 Sub. d)	6	With ref. To the sentence: "ICA considered necessary at time of certification to demonstrate compliance with the certification basis are provided or made available at least in a format which defines the data and content."  As explained with comment NR 1, in principle all the ICA (that have to be produced) are necessary to demonstrate compliance with the certification basis.  As a matter of fact at point d) 1. it should be clear that all the ICA are produced for compliance purposes: both the ICA produced for general <u>compliance</u> with generic and specific requirements, notwithstanding the time they are made available to the interested parties.  (*) The present comments do not necessarily reflect the official position of the Organization of the Author.	"ICA considered necessary at time of certification are provided or made available at least in a format which defines the data and content."	No	Yes	Partially accepted	Text has been amended to: "ICA considered necessary at the time of <del>certification design approval to demonstrate compliance with the certification basis</del> are provided or made available at least in a format which adequately defines the data <del>and content</del> . Furthermore, the way the data <del>format</del> is presented at the time of certification design approval offers the same understanding of the data <del>and content</del> as in the final published format."  Refer also to comment No. 73.