

## Disposition for Interdirector Comments

### Policy PS-ANM-25-08, Integrated Modular Avionics

	<b>Comment</b>	<b>Requested Change</b>	<b>Disposition</b>
<b>1.</b>	<p><b>Commenter:</b> ACE-117C, J. Kuen, 847-294-7125</p> <p>General Comment - How will this policy apply to legacy systems (e.g. Collins ProLine 21)?</p>	<p>The policy will require STC applicants to apply the IMA guidance when they install what looks like an IMA platform. The TSO developer may not have met the IMA requirements. Are we proposing to do an issue paper to address the certification issues? Or maybe this policy will not apply to TSO's that were not developed to IMA guidance.</p>	<p>Comment partially accepted. Paragraph 6 was added to hopefully clarify that the presence or absence of TSO authorizations does not play into the decision as to whether or not AC 20-170 is relevant to a specific airborne system.</p> <p>This policy statement is not intended to address a question of whether or not an issue paper is needed on any particular program. Nor is it intended to address an alternative means of compliance to AC 20-170. For the example given, the Collins Proline 21 has been approved using other guidance. The release of a new AC does not invalidate that previous approval. Rockwell Collins may choose to show compliance to the appropriate regulations by similarity to those earlier approved systems. That activity is beyond the scope of this policy memo.</p>
<b>2.</b>	<p><b>Commenter:</b> ACE-117C, J. Kuen, 847-294-7125</p> <p>Page 1, Summary. The last sentence includes the statement, "whether the avionics system is labeled an IMA or not." This statement should be removed or restated.</p>	<p>If the statement is needed, consider an "and" before whether and delete "or not."</p>	<p>Comment partially accepted. Wording has been revised. However, the idea that this sentence contains gets to the heart of why this policy is needed. That is, if a company does not refer to their system as an IMA, does that automatically mean that AC 20-170 does not apply? No, it does not. This sentence is designed to bring that issue out into the open.</p>

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<b>3.</b>	<p><b>Commenter: ACE-119W – Ma, A</b></p> <p>Does the Policy Statement apply if the applicant treats the entire avionics system (or IMA) as a single LRU, and applicant is not seeking separate acceptance at module level (e.g TSO-C153, acceptance letter)?</p>	<p>Clarification is needed</p>	<p>Comment partially accepted. Paragraph 6 was added to hopefully clarify that the presence or absence of TSO authorizations does not play into the decision as to whether or not AC 20-170 is relevant to a specific airborne system.</p> <p>This policy memo is not intended to address TSO authorizations in IMA systems. That topic is covered in AC 20-170 and (when it is released) order 8110.IMA. Whether or not an IMA is in a single LRU is addressed in the appendix of DO-297, which is one of the criteria that should be evaluated to see if AC 20-170 applies.</p>
<b>4.</b>	<p><b>Commenter: John Lee ACE-119A</b></p>	<p>I believe TSO-C153 only addresses the non-electronic hardware elements of IMAs and not anything about IMA systems/software/AEH functional requirements. If correct, perhaps would be a good idea to mention this TSO-C153 background.</p>	<p>Comment partially accepted. Paragraph 6 was added to hopefully clarify the relevance of TSOA articles in IMA systems.</p> <p>This policy memo is not intended to address TSO authorizations in IMA systems. That topic is covered in AC 20-170 and (when it is released) order 8110.IMA.</p>
<b>5.</b>	<p><b>Commenter: B. Lingberg, AIR-120</b></p>	<p>Summary, Last sentence : Propose changing “ ...if the guidance in AC 20-170 is applicable, whether the ... “ to “ ...if the guidance in AC 20-170 is applicable, irrespective of whether the ... “</p>	<p>We do not agree with the proposed change. Adding “irrespective of” adds unnecessary words to convey the same meaning.</p>

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6.	<p><b>Commenter: (AIR-130)</b></p> <p>Second sentence of section “Current Regulatory and Advisory Material”:</p> <p>Provide publication date of the referenced RTCA/DO-297.</p>	<p>... RTCA/DO-297, <i>Integrated Modular Avionics (IMA) Development Guidance and Certification Considerations</i>, dated November 8, 2005, ....</p>	<p>We agree to add the date.</p>
7.	<p><b>Commenter:</b> ACE-117C, J. Kuen, 847-294-7125</p> <p>Page 3, paragraph 4.a. How is “aircraft function” defined?</p>	<p>A definition should be provided to properly apply this criteria. Are aircraft functions defined by FHA criteria, multiple TSO’s or TSO’s combined with non-TSO functions. Many TSO developers include more than one “function” in the same LRU (with one set of resources), but do not consider this an IMA.</p>	<p>Comment not accepted. This is a pretty standard criterion for what makes up an IMA system. DO-297 uses that criterion. The commenter should keep in mind that this is only one of many different criteria, and a system that just meets that one criterion does not automatically make it an IMA.</p> <p>Defining “aircraft function” is beyond the scope of this policy memo.</p> <p>This policy memo is not about TSO’s or non-TSO functions. Those issues are addressed in AC 20-170 and (when it gets released) order 8110.IMA. The real intent here is to get a dialog started with an applicant and/or their avionics supplier. This policy memo is not intended to give a black or white answer about what is or is not an IMA. Discretion must be used. The Relevant Past Practice and Policy/Background sections explain why this policy is needed. However, paragraph 6 was added to hopefully clarify the concern when TSOA’s are present.</p>

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8.	<p><b>Commenter:</b> <b>John Lee</b> <b>ACE-119A</b></p> <p>Paragraph 4.d</p>	In paragraph 4.d., perhaps add core AEH to “System architecture and/or core software”. A possibility is “System architecture and/or core software/AEH”	Comment accepted, revision made.
9.	<p><b>Commenter:</b></p> <p><b>ACE-111</b></p> <p>Page 3, paragraph 4.e</p>	IMA is used to define an IMA. Delete “IMA” so that it reads – “A dedicated data network – either internal to a cabinet/rack or one that connects physically separated components”	Comment accepted, revision made.
10.	<p><b>Commenter:</b> <b>John Lee</b> <b>ACE-119A</b> Page 4, step 5.</p>	“The applicant should be prepared to document this proposed approach with an issue paper.” Perhaps address if TAD will or will not provide a template issue paper for IMA systems compliance.	Comment not accepted. That is not an appropriate topic for a policy memo and would therefore require TAD to write an issue paper. The appropriate ACO engineer could just as easily write one, or a delegation for that matter. Issue papers will be addressed elsewhere, such as the TAD significant projects list.
11.	<p><b>Commenter: (AIR-130)</b> Last paragraph of section “5. Relevancy of the Guidance Contained in AC 20-170”:</p> <p>Replace “compel” with “require” for consistency with the language used in paragraph 1 of the memo.</p>	Replace with “.... does not require .....”.	We agree to make the change to use consistent language.