

**Public Comments on Order 8110.37E**

<b>Originating Office:</b> AIR-110	<b>Document Description:</b> Order 8110.37E	<b>Project Lead:</b> Ken Filippelli	<b>Reviewing Office:</b>	<b>Date of Review:</b>
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<b>Commenter</b>	<b>Page &amp; Paragraph</b>	<b>Comment</b>	<b>Reason for Comment</b>	<b>Suggested Change</b>	<b>Comment Resolution</b>
Bell Helicopter Textron	Pg 6, ¶ 2-3	Addresses recommend approval but not approval of data	DER's may approve technical data within certain areas as authorized	From: "A recommendation for approval of technical data . . ." To: "A recommendation for approval or approval of technical data . . ."	Non-Concur. – This sentence refers to DERs who do not have approval authority, but still attempt to recommend approval when it is outside of their authority. Before a DER can recommend approval, that DER must first be granted “Recommend approval” authority for that technical area.  No change is necessary
Bell Helicopter Textron	Pg 6, ¶ 2-3	States that a DER's authorization may now be <u>limited</u> for specific projects. My experience is that a DER's area of authorization is usually expanded for specific FAA projects and not limited	A DER's authorization should be the minimum for any project and only expansions of authorization such as test witnessing should be proposed in the certification plan	From: " Specific roles, authorized areas, and responsibilities of a DER . . . may be further limited for specific FAA projects." To: " Specific roles, authorized areas, and responsibilities of a DER . . . may be further expanded for specific FAA projects."	Non-Concur – This sentence refers to cases where the DER has been appointed with authority in a particular area, but for a specific project, the FAA wishes to reserve that certification activity for themselves.  No change is necessary
Bell Helicopter Textron	Pg 11, ¶ 2-6b	Adds ability of DER to witness tests outside of area of authorization, so long as witnessing DER does not make the final compliance finding	May allow reduction of qualification test witnessing costs, since only one DER may be able to witness all tests including vibration and electrical tests.	None: this is good for us	Thank you for the comment

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Bell Helicopter Textron	Pg 11, ¶ 2-6b(3)	For data approval authorization says to provide certification plan	Believe they certification plan number & title since FAA should already have a certification plan on file	From: "For data approval, provide the type of data, certification plan, applicable regulations, guidance material, etc." To: "For data approval, provide the type of data, certification plan number and title, applicable regulations, guidance material, etc."	Concur
Bell Helicopter Textron	Pg 15 ¶ 3-1d	Adds the following: "A DER should not sign an 8110-3 form before all substantiating data is available . . ."	Believe this good practice and welcome the addition. However, the word "should" makes it optional.	From: "A DER should not sign an 8110-3 form before all substantiating data is available . . ." To: "A DER must not sign an 8110-3 form before all substantiating data is available . . ."	Concur
Bell Helicopter Textron	Pg 16 ¶ 3-1J	Abbreviation UM is not defined in the document		From: "An ODA may identify individuals who are DERs as unit members" To: "An ODA may identify individuals who are DERs as unit members (UM)"	Concur
Bell Helicopter Textron	Pg 18 ¶ 3-2 e(2)	Missing words "and the"		From: "The DER candidate then submits Form 8110-3 accompanying data directly to the ACO for review and approval. " To: "The DER candidate then submits Form 8110-3 and the accompanying data directly to the ACO for review and approval."	Concur

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Bell Helicopter Textron	Pg 18 ¶ 3-2 f	Great time saver if we can implement this at Bell	Adds electronic signatures for Form 8110-3		Thank you for the comment
Bell Helicopter Textron	Pg C-1	8110-3 form changes			Thank you for the comment
Bell Helicopter Textron	3-1.j	DERs should be aware that work they perform as an ODA unit member can not be considered as the sole source of data submitted to the ACO for DER renewal.		The ACO should accept and consider the work performed as an ODA unit member, that meet the DER's authorization, as a parallel source of renewal data equivalent to training activity.	Thank you for the comment. – Appointment as a DER must be advantageous for the FAA. Although work for an ODA may be performing the same functions, the ODA is managing the UM at the time, and not the FAA. Only work performed as a DER can be justification for the need for the FAA to continue to manage the DER. ODA work can be used as proof of technical qualifications for application as a DER, but not as justification for renewal as a DER.
Garmin International (Martz)	Page 1 1-5.c	Incorporate definition of ICA and FSIMS acronyms into their first use.	Good practice is to define acronyms at first use. However, I wouldn't remove the definition from the body of the document.	Instructions for Continued Airworthiness (ICA)  Flight Standards Information Management System (FSIMS)	Concur

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Garmin International (Martz)	Page 2 1-5.i	This statement/explanation is too terse and is misleading.	<p>Readers are likely to misinterpret this summary of the change and believe that DERs are to have <u>no authority whatsoever</u> in the TSOA process. The general word “authority” has corporate connotations.</p> <p>Draft 8110.37E clearly states in 2-6.c(5)(a) that DERs may help ACOs in two ways. This help will be of little true value if the DERs are not provided FAA-monitored corporate <u>authority</u> in the TSOA process.</p>	Change item i. to: “Removed FAA approval delegation of software DERs for approvals done under the technical standard order authorization (TSOA) process. (2-6, 2-7, samples in appendix C)”	Concur
Garmin International (Smith)	Page 2 1-5.i	Timing could be better with the upcoming change to DO-178C.	With the change to DO-178C coming in the near future, it will be important to have an established approval structure to determine compliance methods. Dissolving this established approval system before the transition will leave it to individual opinions to determine how to comply with the new requirements of DO-178C.	Recommend waiting until after DO-178C has been implemented, and used for a time, before implementing a change.	Non-Concur. Delegation of SW DER approvals for TSOA is not appropriate.

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Garmin International (Smith)	Page 2 1-5.i	Removing the Software/CEH DERs will likely increase the cost for equipment suppliers and those installing their equipment.	Since there are no coordinated plans to increase oversight by the FAA or provide consistency on organizational delegations, oversight by those installing the components will likely be required to increase. Disjointed certification direction from multiple sources will increase cost for both the equipment manufacturers and those providing oversight.	Since the size and complexity of software and CEH continues to increase and it appears that there is not a legitimate method to write compliance to 14 CFR Part 21 for Software and CEH, recommend keeping the DERs and having them perform component level approvals on the software for all (23, 25, 27, 29, etc.) xx.1301 and xx.1309 Parts the component could be installed on. Compliance to DO-178B is not aircraft specific, and could be written with the limitation that it is not an installation approval.	Non-Concur. Component level approvals must be done as part of an installation.
Garmin International (Martz)	Page 2 1-5.k	“Compliance” misspelled	Spelling	Compliance	Concur
Garmin International (Martz)	Page 2 1-5.k	Incorporate definition of AEG acronym into first use.	Good practice is to define acronyms at first use. However, I wouldn’t remove the definition from the body of the document.	Aircraft Evaluation Group (AEG)	Concur
Garmin International (Martz)	Page 2 1-5.s	Incorporate definition of NACIP acronym into first use.	Good practice is to define acronyms at first use. However, I wouldn’t remove the definition from the body of the document.	National Automated Conformity Inspection Process (NACIP)	Concur
Garmin International (Martz)	Page 3 1-5.ll	Should be consistent in using the term “airborne electronic hardware”. The current text uses “airborne electric hardware”.	Consistency	Change “electric” to “electronic”	Concur

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Garmin International (Martz)	Page 4 1-5.pp	There is no appendix C3	Reference error	Change “C3” to “C” or change reference to “appendix C, page C-3”.	Concur
Garmin International (Martz)	Page 8 2-5.e(2)	Inconsistent numbered list format	Consistency	Change item (2) to read: “Drawings, and”	Concur
Garmin International (Martz)	Page 10 2-6.a(2)	List items (a), (b) and (c) appear to be underlined. This is inconsistent with other numbered list formats.	Consistency	Remove underline format from items (a), (b) and (c).	Concur
Garmin International (Martz)	Page 10 2-6.a(3)	Incorporate definition of DAH acronym into first use.	Good practice is to define acronyms at first use.	Design Approval Authority (DAH)	Concur
Garmin International (Martz)	Page 11  Removal of 8110.37.D 2-6.a(4)	This removal, coupled with the deletion of 8110.37D 2-7.c(5) bullet 2, has the issue associated with objective, independent help being provided the FAA for the TSOA process.	The issue is described in the comment against the removal of the 8110.37D 2-7.c(5) bullet 2 text elsewhere in this comment sheet.  The comments are made to point out that 8110.37E text effectively pulls back all objective, independent software review and approval tasks into the FAA. In today’s paradigm of reduced FAA resources and policy to offload approval processes, such a tactic seems inappropriate.	This removal is acceptable <u>if</u> the text of 8110.37D 2-7.c(5) bullet 2 is re-instated.	Non-Concur. Delegation of TSOA software is not appropriate.
Garmin International (Martz)	Page 11 2-6.a(4) Note:	Punctuation improvement suggestion.	MS Word suggested the improvement and I concur.	Replace comma with a semicolon in the phrase “TSO is not a regulation; therefore finding of ...”	Concur

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Garmin International (Maher)	Page 11 Note under 2-6.a(4)  AND  Page 35 Section 4-15 TSOA Procedures	Paragraph 4-15 points to Order 8150.1B, <i>Technical Standard Order Program</i> . Order 8150.1B paragraph 9.d states that the use of DERs in a TSOA capacity <b>will be allowed at the discretion of the ACO</b> . Order 8150.1B paragraph 9.d appears to be in conflict with the removal of DERs from the TSOA process in Order 8110.37E. The text inside Order 8150.1B says in part: “To be considered, the DER must have an appropriate delegation to make findings of compliance to a TSO.”	Order 8150.1B paragraph 9.d is in conflict with the new Order 8110.37E paragraph 4-15 which says that DERs will not be delegated for TSOA purposes.	Consult Order 8150.1B paragraph 9.d and resolve disagreement with new wording in 8110.37E paragraph 4-15.	Concur. Order 8150.1 will be changed to reflect this policy at the next revision.
Garmin International (Maher)	Page 11 2-6.a(4) and new Note:	This section used to be titled “TSO Software” as a DER delegation; now 2-6.a(4) is titled “AMOC with AD”...This newly titled 2-6.a(4) which is obviously not about TSO Software delegation now has a Note: saying that DERs cannot find compliance to any TSO requirement...	The note is misplaced as it has nothing to do with the section in which it is contained.	It would be more appropriate to put the DER/TSO prohibition in section 2-7 DER Limitations.	Concur. Note was misplaced. Moved note to 2-7.c.(5).

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Garmin International (Martz)	Page 13 2-7.c(5)(a)	The text states that a DER may help an ACO in the TSO process by - “Prepare and submit data or conduct tests on behalf of a TSO applicant, but not use Form 8110-3 to approve data.” While the text makes it clear how <u>not</u> to provide the help, it makes no suggestion as to how the DER is to formally use their DER position to help the ACO.	If they are not to use their FAA-delegated DER authority via an approval then what mechanism could/should be used to distinguish their help from the help of a non-DER?	Add text to paragraph 2-7.c(5)(a) that supports use of the DER number in submission of data. Such text would also have to be added to 3-1.i. which describes when a DER can use their DER number. Additionally, such data submissions should be classified as supporting a DERs evidence of activity for DER Recurrency.	Non-Concur. It is up to each applicant to describe their process for reviewing and submitting data and the individuals involved in that process.  Paragraph was updated to further clarify DER’s role in the process.

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Garmin International (Martz)	Page 14 Removal of 8110.37D 2-7.c(5) bullet 2	For companies that currently use software DERs to approve software data used in TSOA, the removal of 8110.37D 2-7.c(5) bullet 2 from draft 8110.37E appears to eliminate the ability of the software DER to use their FAA-granted authority to help the FAA.	Any alternative to data approval cannot be used to support a DER's activity evidence and thus the DER will quickly lose their DER status due to a lack of activity and/or lack of demonstrated need. Thus, even though they are the same person, with the same qualifications they will no longer be a "DER helping the ACO". Upon loss of DER appointment, all individual accountability to the FAA will also be lost and safety-related decisions made by that individual are potentially compromised. (ref. 3-1.k.) Correspondingly, the ACO will undoubtedly have cause to question the independent objectivity of the help provided by the former DER and thus be forced to spend more time reviewing TSOA data. Surely this will be more time spent than was ever spent in administering the DER's appointment. The additional time spent by the FAA could result in delays in granting of TSOA by the FAA.	Restore the removed section and appropriate form samples in the appendices from 8110.37D.	Non-Concur. Delegation of TSOA software is not appropriate.
Garmin International (Martz)	Page 14 Removal of 8110.37D 2-7.c(5) bullet 2	This removal will generate quite a bit of costly effort in process change on behalf of TSOA companies.	For companies that currently use software DERs to approve software data used in TSOA, the removal of 8110.37D 2-7.c(5) bullet 2 from draft 8110.37E will cause considerable effort in the alteration of documented company processes.	Restore the removed section and appropriate form samples in the appendices from 8110.37D.	Non-Concur. Delegation of TSOA software is not appropriate.

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Garmin International (Martz)	Page 22 4-1.h	The statement forbidding use of an 8110-3 for conformity appears to be at odds with Order 8110.49 Chapter 4	Consistency of FAA Orders	Consult 8110.49 Chapter 4 reference to the use of 8110-3 for conformity and resolve any disagreement.	No Action. – No conflict exists. Order 8110.49, Paragraph 4-3.a.(1) specifies the use of form 8110-3 only to approve a software baseline, ie. the engineering data, that will be used for testing. The request for conformity, form 8120-10 still must list the specific item to be conformed, including the software that was approved via 8110-3.
Garmin International (Maher)	Page 35 4-15	New section 4-15 TSOA Procedures (was 4-14 TSOA Procedures in Order 8110.37D): The text states the negative of the Order 8110.37D text without offering a replacement process. The Order 8110.37D text discussed findings of compliance to DO-178(x) and how DERs could support such findings. However the new text does not address compliance to DO-178(x) at all.	The removal of guidance about DO-178B compliance in TSO process without replacement guidance sends an unclear message. Applicants won't be sure how best to change their processes because there is a void in addressing the issue of DO-178B compliance in TSO projects.  This could result in varying levels of quality in software submittals.	Add replacement guidance for finding compliance to DO-178B. Clarify intent so applicants can best steer their resources to support the FAA's goals.	Non-Concur. Guidance for TSO process is not appropriate in the DER handbook, but can be found in the TSO order, 8150.1.
Garmin International (Barber)	Pages A-1 through A-5  Appendix A title	The title text “ <b>Appendix A. Limitations on DER Functions (Continued)</b> ” appears toward the bottom of each of these pages.	The title text should be at the top of the following page for each of these pages.	Move the title text so that it appears in the correct location on pages A-2 through A-6.	No Action. – This may be a format issue with the browser. Titles appear correctly on the official copy. Once issued, this revision will appear in .pdf, and the formatting concerns should be eliminated..

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Garmin International (Smith)	Page B-2 through B-7  Appendix B, Chart B, Chart E, Chart F	Software delegation is applied inconsistently.	Radios often contain software and there is no delegation for software, while the mechanical systems (C1) has a delegation for software and a mechanical device cannot contain software without supporting electronics that are usually evaluated by electrical systems (C2). The delegation is applied differently at ACOs with some requiring specific delegation in every function and others only allowing Chart C2 Software delegation.  Also, software is a Verification activity, not a Validation activity, so extensive knowledge of the function is not required. The work involved in a finding of compliance for software for a propeller controller is virtually the same as a radio. A DER that can do one, can do most others without additional knowledge.	Create Chart C3, Systems and Equipment (Logical), with Software, CEH, and possibly Safety Analysis as the Delegated Functions and Authorized areas of Level A, Level B, Level C, Level D, Component Data and Aircraft Data, where Component Data is for box level issues and Aircraft Data is for aircraft level issues and installation approval.  It would also help to have specific regulations created to clearly define the task instead of implying the task is part of xx.1301 and xx.1309.	Non-Concur. Out of scope for this revision. This comment will be resolved with the full implementation of Delegation by Rule. The new system will eliminate charts altogether so no new chart is needed.
Garmin International (Whittemore)	Page C-9  Appendix C Figure 3 Block 4	"Engine" is misspelled as "Encine"	Editorial	Replace "Encine" with "Engine"	Concur.

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Hawker Beechcraft Corporation (HBC)	3-1 j Note (page 16)	It would benefit DERs if they could use Engineering UM activity to justify their continued designee status if their status benefits the FAA.	UMs who are also DERs may have a difficult time showing adequate activity depending on ODA unit workload. The company may not have adequate DER support when required, thus forcing the company to rely more heavily upon consultant DERs and/or the FAA.	Add a sentence such as the following: "Each ACO will determine acceptance of UM activity as acceptable for DER renewal."	Partially Concur. - Intent incorporated. Appointment as a DER must be advantageous for the FAA. Although work for an ODA may be performing the same functions, the ODA is managing the UM at the time, and not the FAA. Only work performed as a DER can be justification for the need for the FAA to continue to manage the DER. ODA work can be used as proof of technical qualifications for application as a DER, but not as justification for renewal as a DER.  Note in 3-1.j. allows for discretion by the managing ACO.
HBC	1-5 q (page 1)	Appendix 3 should be called Appendix C	There is no Appendix 3, however, there is an Appendix C	Replace Appendix 3 with Appendix C	Concur
HBC	1-5 qq (page 4)	Reference to Appendix D should be corrected to Appendix C	The Sample of Repair Specification Title/Signature Page is located in Appendix C	Replace Appendix D with Appendix C	Concur
HBC	4-16 (page 35)	Need to clarify how Human Factors will be authorized. Will it be added to an individual DERs chart of authority as a Special Delegation? Will	More clarification is required to fully comply with the intent of the Order statement.	Provide more information on how a DER may obtain Human Factors authority.	Concur. Clarified that there is no Human Factors designation, but DERs should discuss HF issues with the ACO.

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		this authority be open to any qualified DER?			

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Rolls-Royce	Page 3, Section 1-5 z.	We believe that “do” should instead be “to”.	Suspect typographical.	Change “do” to “to”.	Concur
Rolls-Royce	Page 4, Section 1-5 rr.	We believe that it should reference appendix “D” instead of “E”.	Suspect typographical.	Change appendix reference from “E” to “D”.	Concur.
Rolls-Royce	Page 13, Section 2.7.c.(3)	We would recommend a restructure of the paragraph for further clarity	Further clarity. Clarifies the restriction on approval of service documents related to AD’s.	<i>Suggested text “Although a properly authorized DER can normally approve engineering aspects of service documents (including revisions), if the FAA has issued or intends to issue an AD that addresses an unsafe condition that is referenced</i>	Concur. Incorporated the intent, but not all of the exact wording..

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				<p><i>within the service document, then a DER must coordinate with the project ACO and obtain concurrence prior to approving the engineering aspects of the service document. The FAA may reserve the approval of AD-related service documents and revisions.”</i></p>	
Rolls-Royce	Page 14, Section 2.7. c.(6)	Other than for the purpose of creating more paperwork, we do not understand why this delegation is limited to a single aircraft when the same AMOC may be approved repeatedly on separate 8110-3s for multiple aircraft.	If the data supporting the AMOC is approvable for multiple aircraft, then the generation of separate 8110-3s or limitations for single aircraft appears to be inconsistent.	Choose one, either limit the authority to one S/N aircraft, or allow multiple aircraft if appropriate. Otherwise the issuance of multiple 8110-3’s creates the appearance of circumventing a restriction.	Concur. Restrictions in this paragraph have been eased by the addition of authorization for a DER to approve a global AMOC when there is a pattern of identical approvals. This addition was the result of a similar comment from the AD ARC.
Rolls-Royce	Page 14, Section 2.7. c.(6)(b)	Although the language is not new to Order 8110.37 Revision E, we are perplexed by the apparent safety gap set up by the requirements that force the durability of the temporary repair to be greater than 18 months, and the requirement for the replacement with a permanent repair to be completed within 24 months.	Shouldn’t the durability of the temporary repair at least exceed the time period before replacement by a permanent repair, especially since no interim inspection of the temporary repair is intended?	Require the replacement of the temporary repair with a permanent repair within the durability period established for the temporary repair.	<p>No action. Paragraph defines the requirements as intended.</p> <p>This section applies to the delegation of AMOC approvals and is only applicable to company structures DERs who have been specifically delegated authority for AMOC.</p> <p>Temporary repairs must be good for twice the durability of the most critical aspect, and good for at least 18 months. The 24</p>

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					month time is the upper limit of the temporary repair. Even if the repair is good for 5 years, which meets the 18 month minimum, it must be replaced with a permanent repair within 24 months anyway. This essentially makes some repairs not so much temporary repairs as a time limited repairs.
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Tom Knott (Structural DER)	Page 10, para 2-6.a.(2), note 4	This paragraph says, " DERs exercising their authority for major alterations may only approve data consistent with the category of alterations listed in Order 8900.1, Volume 4, Chapter 9, Section 1." The problem is, this Order is itself inconsistent, not updated frequently enough, and has cause untold confusion in the modification industry.	The referenced section of Order 8900.1 needs to be heavily modified in order to be useful. There is also some overlap with the recent draft AC 21-93	Delete the sentence until Order 8900.1 can be revised. Alternatively, finish AC21-93 and reference that instead. There are other documents such as the Airworthiness Compliance Check Sheets which have some value. Outside the scope of this effort, it would be helpful to have a cumulative list of modification projects which can be approved as Major Alterations, and the various ACO's document such decisions (could be informal - kind of like the Transport Airplane Issues List).	Non-Concur. FAA position is that classification in the job aid must be followed unless a deviation is granted. Efforts are ongoing to improve and update 8900.1 and this process to make it more comprehensive, current, and flexible.

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Tom Knott (Structural DER)	Page 16, para. 3-1.j., the note	This paragraph says, "DERs should be aware that the work they perform as an ODA unit member may not be considered for DER renewal. In order to show currency for their DER certificate, they should perform the functions of a DER. Each ACO will determine acceptance of UM activity as acceptable for DER renewal."	The first and last sentences seem to be in conflict. DER work and ODA UM work vary only slightly in procedure and format; they have great relevance to each other. The experience of finding compliance to the regulations is cumulative, regardless of whether Form 8110-3 or 8100-9 is signed.	Perhaps just leave the last sentence "Each ACO will determine acceptance of UM activity as acceptable for DER renewal"	Partially Concur. - Intent incorporated. Appointment as a DER must be advantageous for the FAA. Although work for an ODA may be performing the same functions, the ODA is managing the UM at the time, and not the FAA. Only work performed as a DER can be justification for the need for the FAA to continue to manage the DER. ODA work can be used as proof of technical qualifications for application as a DER, but not as justification for renewal as a DER.  Note in 3-1.j. allows for discretion by the managing ACO.
Tom Knott (Structural DER)	Page 24, para. 4-6.a.	This paragraph says, "We may approve minor changes in type design under a method acceptable to the Administrator, per 14 CFR § 21.95. This method may include approval by a DER without prior authorization by the ACO." This is somewhat confusing since DER's are not allowed to use Form 8110-3 to approve Minor Repairs and Minor Alterations (recognizing	In the mod world, there is inconsistency in defining "under a method acceptable to the Administrator", and some DAH's and Repair Stations are seemingly incapable of making even the most obvious Major/Minor determinations. Worse yet, they consult DER's and ignore their advice. The original stated reason for disallowing Form 8110-3's for Minor purposes was FAA burden, but in actuality, it is the DER that does all the workup.	Perhaps allow DER's to use Form 8110-3 to approve Minor Repairs and Minor Alterations, and as a document for Minor Type Design Changes. Affects para 4-12.b.	Non-Concur. The intent of this policy is to reduce FAA workload when only minor repairs or alterations are involved. A DER acts as a representative of the FAA and submits all 8110-3s to the managing ACO. If DERs submit 8110-3s for minor repairs and alterations, it has not relieved the burden to the FAA. The FAA still must be involved to review an 8110-3 for something that we have decided not to be involved with.

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		this paragraph refers to TYPE DESIGN changes).			
Tom Knott (Structural DER)	Page 29, para 4-12.h.(1)	This paragraph says, "FSIMS, Volume 4, Chapter 9, Figure 4-68, includes a major alterations job aid that must be used to determine if a particular alteration requires approval by STC, or can be supported with DER approved data and/or a field approval by an FAA Flight Standards District Office (FSDO) inspector."	See earlier discussion related to Page 10, para 2-6.a.(2), note 4	Change "must" to "should", add options similar to upcoming AC21-93 and for consultation with ACO's. (Hopefully those consultations and determinations could be documented in "case law" so they don't have to be revisited)	Non-Concur. FAA position is that classification in the job aid must be followed unless a deviation is granted. Efforts are ongoing to improve and update 8900.1 and this process to make it more comprehensive, current, and flexible.

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GE Aviation Andrew May	Appendix C	There is just one comment that we would like make, with reference to Appendix C, which provides instructions for preparation of form 8110-3, specifically Block 7 on page C-3: Note 2 discusses			Concur. Added examples in Appendix C.

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		the situation where multiple DERs sign the same 8110-3 form. It would be useful to have examples of the couple of different approaches suggested in the note.			

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Cessna Carlos Ayala	General	In general, Cessna found the draft difficult to navigate as the paragraph numbers are removed from the footer of each page.			Thank you for the comment. Unfortunately, removal of the footers is consistent with the new format for orders and guidance FAA-wide.
Cessna Carlos Ayala	Paragraph 4-1.b	Cessna had one specific comment--In Chapter 4 Certification Activities of a DER, section 4-1.b. provides a minimum list of information to be contained in a Certification Plan. The criteria seem to be significantly less stringent than other guidance in FAA Orders 8110.4C and 8100.15. Cessna respectfully requests clarification.			No Action Necessary. The governing document for the certification process is Order 8110.4(). The list shown in Order 8110-37 is intended to illustrate the minimum requirements for the certification plan to aid in understanding where the DER may be involved in the process. The applicant is ultimately responsible for developing the certification plan and must adhere to Order 8110-4().

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Boeing Terry McVenes	Appendix B, Figure 3, Chart C1, DER Systems and Equipment Page B-3	Delegated function area 3M is a shaded square, meaning that the Software Delegated Function is not authorized in Evacuation Systems.	Currently, there are Authorized Representatives (AR) in the AR database with 3M authority.	Change the delegated function area 3M to a white square, to indicate that the Software Delegated Function <u>can be authorized</u> in Evacuation Systems.	Concur. Modified Chart C1.
Boeing Terry McVenes	Appendix B, Figure 4, Chart C2, DER Systems and Equipment (Electrical Equipment) Page B-4	Delegated function area 3I is a white square, indicating that the Software Delegated Function can be authorized in Interior/Exterior Lighting.	Appendix 1 (Figure 3) of FAA Order 8100.8C references FAA Order 8100.37, but does not contain the Software 3I delegated function area.	We agree with the proposed requirement change. However, delegated function area 3I should also be added to the table on page 15 in FAA Order 8100.8C (“Designated Engineering Management”), Appendix 1 (Application Package), Figure 3 (DER Application Evaluation – Systems and Equipment – Electrical Equipment).	Concur. Submitted change to Order 8100.8.

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Delta Peter Lauria	Chapter 2; DER Authority and Limitations	Paragraph 2-7.b.(2) states that when determining if a Type Design Change is Major or Minor, the Design Approval Holder (DAH) decides whether a type design change is major or minor.. This should be changed to			Concur. Modified wording.

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		<p>the Applicant for deciding if a type design change is major or minor, as defined in 14 CFR 21.93 and/or guidance material contained in FSIMS Order 8900-1. The implication is that, if the DAH is the only entity who can determine whether a type design change is major or minor, we will be locked into getting approval from the DAH. This statement for DAH determination is in conflict with the objectives of the determination in Paragraph 4-6. This statement would also require that the applicant provide proprietary design data to the DAH in order to make the determination. Such disclosure would not be in anyone's interest but the DAH.</p>			
Delta Peter Lauria	Chapter 3: DER Administration	<p>Paragraph 3.1.j. states that a "DER does not issue Form 8110-3 in support of ODA projects". We understand the intent of this paragraph, but there are instances where an ODA is not delegated a</p>			<p>Concur. However, this is allowed only when a TC holder's DER is supporting an MRA ODA project. Paragraph has been modified for clarification.</p>

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		<p>function that the DER holds, and the DER can provide needed data (e.g.; Damage Tolerance Evaluation). In such instances, we would suggest that if the ODA coordinates with, and receives approval from, the OMT, an exemption to this rule could be granted. Otherwise, it would require that the ODA be delegated the given function, then bring the DER in as a UM. Short fuse projects, where the UM would be temporary or limited use, would be unnecessarily delayed due to this requirement.</p>			
Delta Peter Lauria	Chapter 4: Certification Activities of a DER - 4-11.b.	<p>Paragraph 4-11.b. states that to make a finding of identity for a PMA part, the DER must have an FAA authorization to recommend approval. We are very concerned with that requirement. How is this going to be administered? Will it require a special letter to state that DER is authorized to submit data</p>			Concur. Modified wording for clarification.

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		<p>for recommending approval? It is clearly stated in the previous sentence that a DER may only recommend approval for these parts. This statement would require us to verify that each DER, whether DAH, company or independent, has authority to submit the data to the FAA. See 4-12; when a DER has the special rating to perform data approvals for major repairs and/or alterations has the FAA not already granted the person to submit data (“recommend only”) for FAA approval?</p>			
Delta Peter Lauria	Chapter 4: Certification Activities of a DER - 4-12.	The words “engine” and “component” should be added to the list in the definition of a repair.			Non-Concur. Changed paragraph to reflect current wording in Part 21 which uses “product” and “article.”
Delta Peter Lauria	Chapter 4: Certification Activities of a DER - 4-12.b.	Paragraph 4-12.b. states that DERs cannot approve minor repairs or alterations. While we understand the history behind this change, the wording is of concern. While DER approvals of a			Thank you your interest in aviation safety.

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		<p>minor repair or alteration would not be appropriate, DERs are often presented with a data package from the applicant. The applicant may include reasoning behind why they consider it major, but often the DER is asked to approve the data as presented, with the presumption that the applicant has already made the determination that the repair or alteration is major. Since it is the responsibility of the owner/operator to determine major/minor, the DER is obliged to proceed on that presumption.</p>			
Delta Peter Lauria	Chapter 4: Certification Activities of a DER - 4-12.c(3).	<p>Paragraph 4-12.c(3) states, " DERs may not approve alteration data for aircraft/components not undergoing the alteration as this would be a "future use approval". The DER may not list multiple aircraft/components that are not currently being modified as this would be considered a multiple-use alteration, which is only</p>			Concur. Modified wording for clarification.

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		<p>appropriate via STC or ATC." First, in all cases except unexpected findings, such as findings of unexpected damage or corrosion, operators and modification stations must have data for alterations prepared and approved for future use. It is not practical for an operator or a modification station to wait until an aircraft is inducted into modification prior to obtaining approval of the data for an alteration. Proper planning for modifications mandate that the alteration paperwork and the data approvals are prepared and complete well in advance of an airplane being inducted into the hangar for the actual modification work. Second, just because a particular alteration will be performed in the same manner using the same substantiation data on several airplanes, where the configuration of the area of concern is the same, should not</p>			

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		<p>automatically constitute the need for an STC instead of using FAA approved data (such as DER approved data) as substantiating data for the major alterations. For example, an operator or a modification station intends to modify a certain avionics installation on a fleet of airplanes where the configuration of the system is the same between all of the airplanes planned for the modification. The operator or modification station has determined that the modification is major; therefore, FAA approved data is necessary. However, the operator or modification station has determined (via guidance from FAA Advisory Circular 21.101-1A and 8900.1, volume 4, Figure 4-68, Job Aid) that the alteration is not considered to be a Significant change; therefore, it does not require an STC. In circumstances such as this, it should not be necessary to process an STC. Forcing operators or a modification</p>			

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		<p>stations to perform STCs in these circumstances will also greatly increase the workload of the FAA Aircraft Certification Offices. As another example, removal of a seat row, in order to increase seat pitch in coach, and respacing of PSUs, without any monument changes, would constitute a major alteration per 8900.1 and industry practice. The application of the major alteration to an operator's fleet of similar aircraft should not push the alteration to an STC in and of itself. Delta believes that FAA AC 21,101-1A and FAA Order 8900.1 provide sufficient guidance for determining which alterations require new TC, STC ATC, which alterations require evaluation and which alterations require approved data to accompany the FAA Form 337 or equivalent.</p>			

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Delta Peter Lauria	Chapter 4: Certification Activities of a DER - 4-12.h(1)	Paragraph 4-12.h.(1) states, "If a particular alteration requires an STC, a DER cannot approve any data for the alteration under the special delegation for major alterations. " It is common for an operator or a modification station to use an existing STC for modification of another airplane. It is also common to find situations on specific aircraft where small deviations are necessary because of differences between the installation detailed in the STC and the installation on the candidate aircraft to be modified. For example, it is common to find circumstances where the candidate modification aircraft has small differences, such as different wire numbers or different connector configurations or different module block identifications, etc. As listed on most STCs, "The installer must determine whether this design change is compatible with			Concur. Modified wording to allow DER data approval in support of the STC installation.

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		<p>previously approved modifications." Once these deviations are discovered, then it is necessary to perform the engineering research to determine if those differences are acceptable. In many situations, the differences have no effect at all on the system being installed. However, the installation drawings must show the actual installation details. In these cases, it is necessary for the FAA or FAA DER to review those differences and deviations and to provide FAA approval of those differences. In these circumstances, the STC itself is not amended. Instead, the STC along with the differences documents and the FAA approval of those differences documents (normally 8110-3 approvals) makes up the substantiating data that is attached to the FAA Form 337.</p> <p>Forcing operators or a modification stations to</p>			

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		perform STC amendments or to process new STCs in these circumstances will also greatly increase the workload of the FAA Aircraft Certification Offices. Delta believes this sentence should be removed.			
Delta Peter Lauria	Chapter 4: Certification Activities of a DER - 4-13	Paragraph 4-13 Repair Specifications. In general, Delta disagrees with the premise that multiple-use major repairs require approval as an RS unless they come from a DAH. We believe that if the expectation for multiple-use repairs requires RS from operators, the same level of review needs to be applied to DAH-approved repairs.			Non-Concur. DAHs have service document vehicles available to them, where non-DAHs must rely on repair specifications.
Delta Peter Lauria	Chapter 4: Certification Activities of a DER - 4-13.e(2)	Paragraph 4-13.e(2) states “DERs approved data in support of a RS must be authorized the special delegation of major repairs, and have specific authority to approve data for multiple-use repairs, but do not need to be RS-DERs.” As this reads, we will need to have authorization on			Concur in part. No action required. This authority has been sufficiently described in FAA Order 8100.8.  Charts will be removed when the system of delegation by rule is implemented.

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		<p>our certificate for multiple-use repairs. In the recent past, however, a number of DERs have been told that the Special Authorization for multiple-use repairs would not be granted due to the redundancy with the new RS-DER designation. We believe that this revision is stating that both are now an option. If so, we would request that the Delegated Functions and Authorized Areas Charts in Appendix B include Multiple-Use Repairs as a line item (see below).</p>			

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**Figure 1. Chart A, DER Structural**

Functions and areas that *can* be authorized are defined by *white squares*. Each DER's authority may be different, and is identified in their letter of appointment.

		AUTHORIZED AREAS															
		Structural-General (1)	Structural-Wing Group	Structural-Fuselage Group	Structural-Empenage Group	Structural-Landing Gear	Structural-Flight Controls	Structural-Rotor	Loading Control Documents	Metallic Materials (2)	Nonmetallic Materials (3)	Interior Arrangements	Interior Materials	Fire Protection	Evacuation Systems	Door Systems	Special (Specify)
DELEGATED FUNCTIONS		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	STATIC ANALYSIS																
2	DYNAMIC ANALYSIS																
3	FATIGUE ANALYSIS																
4	DESIGN AND CONSTRUCTION																
5	FLUTTER/GROUND VIBRATION																
6	SAFETY ANALYSIS																
7	FLOTATION & DITCHING ANALYSIS																
8	STRUCTURAL LOADING LIMITATIONS																
9	SERVICE DOCUMENTS																
10	MATERIAL & PROCESS SPEC.																
11	FLAMMABILITY																
12	DAMAGE TOLERANCE EVALUATIONS																
13	<a href="#">Major Repairs</a>																
14	<a href="#">Major Alterations</a>																
15	<a href="#">Multiple-Use Repairs</a>																

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Andy McAnaul	Appendix 3, Figure 5	I noticed the Request for Special Authorization form currently in Appendix 3, Figure 5 is missing in the revision. This was a great way to convey special authorizations to DER's I manage or work with for supporting special projects and/or to help them to gain additional experience for possible later expansion of authority, etc. While I understand the Request for Special Authorization methodology is still in effect, the form itself was a great tool to document that authorization for both the advisor/FAA engineer and the DER. I would appreciate it if AIR-140 would reconsider including a like form in support of paragraph 2-6.b. special authorization in the appendix of the revised Order.			Non-Concur. Local offices may continue to use the special authorization form, or another process, but this will not be included as part of national policy.

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ACE-116W	Page B-3, Fig 3	Title of Figure 3 is missing “(Mechanical Equipment)” at the end of the title.	“(Mechanical Equipment)” is listed at the end of the title of Figure 3 in the previous revision of this order, and it was not listed in Section 1-5 as a change. This would add clarification to this chart.	At the end of “Figure 3. Chart C1, DER Systems and Equipment”, add “(Mechanical Equipment)”.	Concur
ACE-116W	Page 4 Para 1-5.qq.	This section states Appendix D is the “Sample of Repair Specification Title/Signature Page”, but Appendix D actually is “Definitions and Acronyms”.	Clarification needed	Correct Appendix D title in 1-5.qq.	Concur
ACE-116W	Page 4 Para 1-5.rr.	This section states Appendix E is the updated acronym list, but Appendix E is actually “Administrative Information.”	Clarification needed	Correct Appendix E title in 1-5.rr.	Concur.
ACE-116W	Appendix F	Title of Appendix F is “Form 1320-19, Directives Feedback Form”	This form should be at the end of the order, but should not be an appendix (it is in every order).	Delete the Title of this form.	Non-Concur. – New format for Orders attached this form as an appendix at the end of the document.

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Ben Granatek FAA RS-DER	4-1	<p>I find Section 4-1. of Draft Order 8110.37E troublesome, in that the requirement all PMA Projects be broached with the appropriate ACO. This makes sense for Category 1 Engine Components in my case but certainly not for simple Components like "washers" for instance.</p> <p>Do we need to check with the ECO on every PMA Project via T and C for Cat. 2 and Cat. 3 Engine Components. I have only done this for Cat. 1 Engine Components.</p> <p>The 8110.37E Draft has us DER's reviewing every PMA Project via T and C with the appropriate ACO.</p> <p>Why?</p>			Concur. Paragraph 4-1 was amended to specify PMA for complex, critical, or life-limited parts based on test and computation.

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Wencor, LLC 1625 North 1100 West, Springville, UT 84663	2-3 Third sentence: "An ACO may also authorize a DER to witness FAA compliance tests and perform compliance inspections."	Expand to allow selected DARs to witness testing when approved by the responsible DER.	Many DARs are fully qualified to understand and witness testing and many times are more readily available for such duty.	"An ACO may also authorize a DER or DAR , approved by the responsible DER, to witness FAA compliance tests, however, only a DER can perform compliance inspections."	Non-Concur. – Not all tests require witnessing by the FAA, or DER, only those that the FAA deems to be critical. If the FAA authorizes a DER as a test witness, it is a special case. Therefore, for the DER to further delegate this function would not be in the FAA’s best interest.
Wencor, LLC	2-5.b.(3)	Expand to cover parts.	Clarification needed.	"Other data relating to powerplant installations, including all systems, <b>parts</b> and equipment necessary for the proper operation of a powerplant."	Concur.
Wencor, LLC	2-5.c.(3)	Expand to cover parts.	Clarification needed.	"Other data relating to aircraft systems, <b>parts</b> and equipment design not covered by structural or powerplant representatives."	Concur.
Wencor, LLC	3-1.j.Note	This note unnecessarily restricts DERs from using ODA work as supporting activity to help retain DER activity status.	Restriction is not fair to DERs who also are supporting ODA UMs. DER and ODA work can be cyclical but covering the same technical expertise.	Delete this note restriction.	Partially Concur. - Intent incorporated. Appointment as a DER must be advantageous for the FAA. Although work for an ODA may be performing the same functions, the ODA is managing the UM at the time, and not the FAA. Only work performed as a DER can be justification for the need for the FAA to continue to manage the DER. ODA work can be used as

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					proof of technical qualifications for application as a DER, but not as justification for renewal as a DER.  Note in 3-1.j. allows for discretion by the managing ACO.
Wencor, LLC	4.1.i.(1)	Document directly on the 8100-1 form needs to allow attachments as needed.	Clarify that on the form can also include an entry with attachments when needed.	Revise first sentence to read: “Document the disposition of an unsatisfactory condition on <b>or attached to</b> Form 8100-1, <i>Conformity Inspection Record</i> or as agreed to with the project ACO.”	No Action Necessary. – Continuation sheets used should be additional forms 8100-1 with the correct page number noted in block 2. This procedure already allows for multiple pages if necessary. All pages are actually part of 8100-1, and not “attached sheets.”
Wencor, LLC	4.4.b	Restricts DER from delegating Test Witnessing and can be schedule impacting.	Allow DER to delegate Test Witnessing of testing Non-Critical Parts when a qualified DAR can be assigned.	Add; “The only exception is the DER can delegate Test Witnessing of testing Non-Critical Parts when a qualified DAR can be assigned.”	Not Accepted. – Not all tests require witnessing by the FAA, or DER, only those that the FAA deems to be critical. If the FAA authorizes a DER as a test witness, it is a special case. Therefore, for the DER to further delegate this function would not be in the FAA’s best interest.

<b>Company &amp; Group</b>	<b>Page &amp; Paragraph</b>	<b>Comment</b>	<b>Rationale for Comment</b>	<b>Recommendation</b>	<b>Disposition</b>
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<b>Company &amp; Group</b>	<b>Page &amp; Paragraph</b>	<b>Comment</b>	<b>Rationale for Comment</b>	<b>Recommendation</b>	<b>Disposition</b>
AD CRT	2-7c(6)	Add another sentence	There may be times when an individual AMOC is repetitious and could be better served as a global AMOC.	” In rare circumstances, when the DER has documented a pattern of identical approvals and it has been demonstrated that the AMOC is applicable to a defined fleet of aircraft, the DER may be authorized to approve a global AMOC if coordinated with the responsible ACO.”	Concur. Added sentence
AD CRT	2-7c(6)	Add new (c)	The scope of what a structural DER may approve under an AMOC should be expanded to include the recommendation.	(3) An authorized DER may approve an alternate inspection method, threshold, or interval where a new repair or modification results in the inability to accomplish the existing AD mandated inspection or necessitates a change in the existing AD inspection threshold. The standard for these approvals is the appropriate damage tolerance regulation (e.g., 14 CFR 25.571, Amendment 45 or later).	Concur. Added paragraph
AD CRT	3-2(b)	Add new paragraph	Previous versions were silent on the distribution of 8110-3 forms in support of AMOCs. This clarifies where to send the forms.	(4) <b>Alternate Methods of Compliance.</b> For a Form 8110-3 used to support an AMOC issued by the AD-issuing ACO, submit the original to the ACO responsible for the AD with a copy to the managing ACO. DERs must distribute delegated AMOCs in accordance with FAA Order 8110.103	Concur. Added paragraph, but changed wording of “Alternate” to “Alternative,” and “AD-issuing ACO” to “responsible ACO.”

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<b>Company &amp; Group</b>	<b>Page &amp; Paragraph</b>	<b>Comment</b>	<b>Rationale for Comment</b>	<b>Recommendation</b>	<b>Disposition</b>
AD CRT	4-8(a)(1)	Add criteria for global AMOC	Now that we are allowing some global AMOC delegation, we need to adjust the criteria appropriately. Serial numbers and owner/operator not required.	Add second sentence to (1), "For a global AMOC, identify the applicable aircraft for which the AMOC is approved. This can be accomplished through a listing of applicable operators, serial numbers, or other limiting criteria; or if the global AMOC applies to all serial numbers, so state"	Concur. Added sentence.
AD CRT	Appendix C Block 8 instructions	Delete unnecessary words	In the first sentence, on the second line, delete the words "to him". They are unnecessary.	As proposed, delete "to him"	Concur. Deleted wording.
AD CRT	Appendix C Block 8 instructions	Add new example	Need example for global AMOC	Add another example after the other AMOC example: 8. PURPOSE OF DATA In support of a global AMOC.	Concur. Added example.

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Bill Wright Advantage Aviation Tech, Inc.	4-13.e(1)	In an effort to relieve the FAA inspectors from having to update Op Specs each time we got approval on repair data and speed up a very slow process, by rule, the responsibility to	Interpretation #1.  This is being interpreted by some ACO's to mean that the applicant has all the materials, equipment, trained personnel, facilities,	First recommendation. Delete paragraph. Regulations are already in place to determine applicant capability by FSDO.  Alternate recommendation if the	Non-Concur. It is not the DER's responsibility to assess the capability of the applicant. The FAA managing office will mak the proper assessment and determine whether or not to adjust the applicant's

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		<p>document and maintain a Capabilities List was assigned to a Repair Station that required frequent changes to its Op. Specs. This placed the burden of proof on the Repair Station to ensure it was capable of performing the repair by completing an Audit Checklist that contains all the requirements to determine capability such as proper rating, approved data, trained personnel, equipment, qualified personnel, appropriate facilities, tools, and capability such as repair, overhaul, inspect, rebuild, or test. The answer must be “yes” to all before proceeding any further. Also required on this form is to list the <u>specific</u> tools and equipment, materials, <b>technical data (Repair Specification)</b> to be used, and list the type of qualified personnel needed and available to perform and inspect the repair. A copy of the repair specification with signed</p>	<p>etc. to perform the repair process in place and ready to go before the cover sheet can be signed.</p> <p>The Repair Station needs the approved data in hand before it can complete the audit checklist which determines Capability. Catch-22.</p> <p>Another situation is where a Repair Station writes a repair that involves a huge capital investment in equipment. They are not going to make that investment if they don’t have a signed approved repair in hand first. Catch-22</p> <p>Ultimately, It is the FSDO that determines capability and to do that there has to be approved data in the hands of the repair station. Technically, a PMI cannot say “yes they are capable” because the repair has not been signed and approved. An audit checklist has not been completed, a revised capability list has not been sent to and reviewed by the PMI, signed and sent back to the Repair Station, and the DER cannot sign and approve the data until the PMI says “yes they are capable”. Catch-22. The PMI can determine if they <u>will be</u> capable.</p>	<p>first is unacceptable. Change paragraph to read:</p> <p>Change/Additions in <b>bold</b> print</p> <p>.....the RS-DER <b>shall</b> coordinate with the managing FSDO,.....and confirm <b>by email</b> that the proposed RS <b>will be</b> within the capability of the applicant or that their rating will be adjusted to allow its use <b>if the DER has reasonable doubt as to the applicants ability to meet capability requirements for the RS.</b> This coordination.....</p>	<p>authorization.</p>

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		<p>cover sheet and a revised capability list with the repair listed and any new part numbers added is then sent to the PMI for review and approval signature. He sends the signed copy of the capability list Table of Content page back to the repair station, and retains a copy of the revised capability list. Therefore, this seems to be an unnecessary requirement and extra work for the PMI and DER.</p>	<p>Interpretation #2.</p> <p>Some DER's do not feel the need to contact the PMI because they are aware of the capabilities of the repair station thru a long working relationship.</p> <p>Sometimes the repair is revised to just add a new part number that can be repaired under the current repair specification, and notifying the PMI in this case would be unnecessary.</p> <p>The method of contacting the PMI should be identified as some will accept phone conversation, some will accept email, and some will only accept communication via the postal service. Delay causes frustration for the DER, anxiety for the applicant waiting for an approved cover sheet, and reason for the customer to go elsewhere.</p>		

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GAMA	1-5.i.	<p>GAMA believes this statement could be misleading and may be misunderstood to mean that all authority of DERs have been removed in the TSOA process and would conflict with the verbiage in 2-7 (c)(5). GAMA recommends the FAA reword the statement to “Removed FAA approval delegation of software DER’s for approvals done under the TSOA process.” Also, it is unclear if this includes DER approval of software DO-178B compliance data for TSOs as well. Currently, certain DERs hold a “Special Function” authorization for “Findings of Compliance to TSO for Software”.</p> <p>With the upcoming change to DO-178C coming in the near future, it will be important to have an established approval structure to determine compliance methods. Dissolving this established</p>	<p>Removing the Software/CEH DERs will likely increase the cost for equipment suppliers and those installing their equipment. Since there are no coordinated plans to increase oversight by the FAA or provide consistency on organizational delegations, oversight by those installing the components will likely be required to increase. Disjointed certification direction from multiple sources will increase cost for both the equipment manufacturers and those providing oversight.</p> <p>Since the size and complexity of software and CEH continues to increase and it appears that there is not a legitimate method to write compliance to 14 CFR Part 21 for Software and CEH, GAMA recommends keeping the DERs and having them perform component level approvals on the software for all (23, 25, 27, 29, etc.) xx.1301 and xx.1309 parts the component could be installed on. Compliance to DO-178B is not aircraft specific, and could be written with the limitation that it is not an installation approval.</p>		Non-Concur. Component level approvals must be done as part of an installation.

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		<p>approval system before the transition will leave it to individual opinions to determine how to comply with the new requirements of DO-178C.</p> <p>GAMA recommends the FAA wait until after DO-178C has been implemented, and used for a time, before implementing a change.</p>			
GAMA	1-5.r.			GAMA requests a national policy regarding electronic signatures be developed and referenced in this order.	Out of scope for this revision. However, Paragraph 3-2.f. allows the use of electronic signatures on form 8110-3 under an agreement with the DER's managing ACO.
GAMA	1-5.z.			1-5 z GAMA suggests this statement change "ACO do properly define..." to "ACO to properly define..."	Concur.
GAMA	1-5.rr.			<p>GAMA requests that the FAA include the following acronyms in the appendix and change acronym list reference to "D" instead of "E".</p> <p>AC – see Section 5-1</p> <p>EWIS – see Appendix A 2.c.(10)</p>	Concur. Added to list

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GAMA	1-5.pp.			GAMA suggests changing the reference of appendix "C3" to "C".	Concur.
GAMA	2-6.a.(4) Note	Paragraph 4-15 points to Order 8150.1B, Technical Standard Order Program. Order 8150.1B paragraph 9.d states that the use of DERs in a TSOA capacity will be allowed at the discretion of the ACO. Order 8150.1B paragraph 9.d appears to be in conflict with the removal of DERs from the TSOA process in Order 8110.37E. The text inside Order 8150.1B says in part: "To be considered, the DER must have an appropriate delegation to make findings of compliance to a TSO." Order 8150.1B paragraph 9.d is in conflict with the new Order		This section used to be titled "TSO Software" as a DER delegation; now 2-6.a(4) is titled "AMOC with AD"...This newly titled 2-6.a(4) which is obviously not about TSO Software delegation now has a Note: saying that DERs cannot find compliance to any TSO requirement... The note is misplaced as it has nothing to do with the section in which it is contained. Recommendation - It would be more appropriate to put the DER/TSO prohibition in section 2-7 DER Limitations. Page 2	Concur. Note was misplaced. Moved note to 2-7.c.(5).

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		8110.37E paragraph 4-15 which says that DERs will not be delegated for TSOA purposes. GAMA recommends the FAA consult Order 8150.1B paragraph 9.d and resolve disagreement with new wording in 8110.37E paragraph 4-15.			
GAMA	2-7.c.(5)(a)	The use of the terms “prepare” and “conduct test” in this context is misleading as a DER does not normally prepare data or conduct tests.		GAMA recommends changing the statement to “Review and submit data or witness tests...”	Concur. Modified wording.
GAMA	2-7.c.(6)			GAMA requests clarification on why delegation is limited to a single aircraft when the same AMOC may be approved repeatedly on separate 8110-3s for multiple aircraft. If the data supporting the AMOC is approvable for multiple aircraft, then the generation of separate 8110-3s or limitations for single aircraft appears to be inconsistent.	Concur.  This comment was submitted by Rolls Royce and addressed previously on this list.
GAMA	2-7.c.(6)(b)	Although the language is not new to Order 8110.37 Revision E, we are perplexed by the apparent safety gap set up by the requirements that force the			No action. Paragraph defines the requirements as intended.  This comment was submitted by Rolls Royce and addressed previously on this list.

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		durability of the temporary repair to be greater than 18 months, and the requirement for the replacement with a permanent repair to be completed within 24 months. Shouldn't the durability of the temporary repair at least exceed the time period before replacement by a permanent repair, especially since no interim inspection of the temporary repair is intended?			
GAMA	4-1.b			As section 4-1b provides a minimum list of information to be contained in a certification plan the criteria seem to be significantly less stringent than other guidance in FAA orders 8110.4C and 8100.15. GAMA requests the FAA provide clarification on the differences.	
GAMA	4-1.h.			The statement forbidding use of an 8110-3 for conformity appears to be at odds with Order 8110.49 Chapter 4 GAMA recommends the FAA consult 8110.49 Chapter 4 reference to the use of 8110-3 for conformity and resolve any disagreement.	No Action.  This comment was submitted by Garmin and addressed previously on this list.

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GAMA	5-1	The use of the phrase "... maintaining the required material." is misleading as "maintaining" can imply that the responsible person should hold the data, but it can also imply that the responsible person is the one to modify the required material, which is certainly not the case.		GAMA recommends the FAA change the verbiage to "... acquiring and retaining the required material."	Concur in part. Modified wording to require DERs to access the material. The need not retain the data since current versions are now available on line.
GAMA	Appendix A			Appendix A 2 b(4) references a note. GAMA recommends deleting this reference or defining the note and location.	Concur. Added information on location of note.
GAMA	Appendix B	Appendix B, Chart B, Chart E, Chart F Software delegation is applied inconsistently. Radios often contain software and there is no delegation for software, while the mechanical systems (C1) has a delegation for software and a mechanical device cannot contain software without supporting electronics that are usually evaluated by electrical systems (C2). The delegation is applied		GAMA recommends the FAA create Chart C3, Systems and Equipment (Logical), with Software, CEH, and possibly Safety Analysis as the Delegated Functions and Authorized areas of Level A, Level B, Level C, Level D, Component Page 3 of 4 GAMA 11-15: Comments on Draft Order 8110.37E <i>Designated Engineering Representative (DER) Handbook</i> Page 4 of 4 Data and Aircraft Data, where Component Data is for box level issues and Aircraft Data is for	Out of scope for this revision.  This comment was submitted by Garmin and addressed previously on this list.

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		differently at ACOs with some requiring specific delegation in every function and others only allowing Chart C2 Software delegation. Also, software is a Verification activity, not a Validation activity, so extensive knowledge of the function is not required. The work involved in a finding of compliance for software for a propeller controller is virtually the same as a radio. A DER that can do one, can do most others without additional knowledge.		aircraft level issues and installation approval. It would also help to have specific regulations created to clearly define the task instead of implying the task is part of xx.1301 and xx.1309	

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Steve Schultz Chromalloy		We do a significant amount of APU component repair development at our facility and we have for many years found compliance with TSO-C77 in APU component repair approvals. We all understood that this was		I would suggest that either the prohibition on use of TSO-C77 for APU component repairs be removed from the subject order or the appropriate replacement for it be identified along with the prohibition.	Non-Concur. Out of scope for this revision. TSO-C77 should not be listed as an applicable regulation for an APU repair. Appropriate regulations should be those for the airplane where the APU is installed. A DER may note that a repair does not invalidate conformance to TSO-

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		<p>not strictly correct since the TSO is not a regulation but we used it anyway because there wasn't a regulation that contained the APU design requirements. Before that, we were finding compliance to Part 33 (Engines) for APU repairs but that was deemed to be even less appropriate so we have been using the TSO for close to 15 years now.</p> <p>However, I noticed in the draft 8110.37E that using the TSO to find APU component repair compliance will no longer be permitted but the draft order did not address what we were to use instead - do you happen to know?</p>			C77.