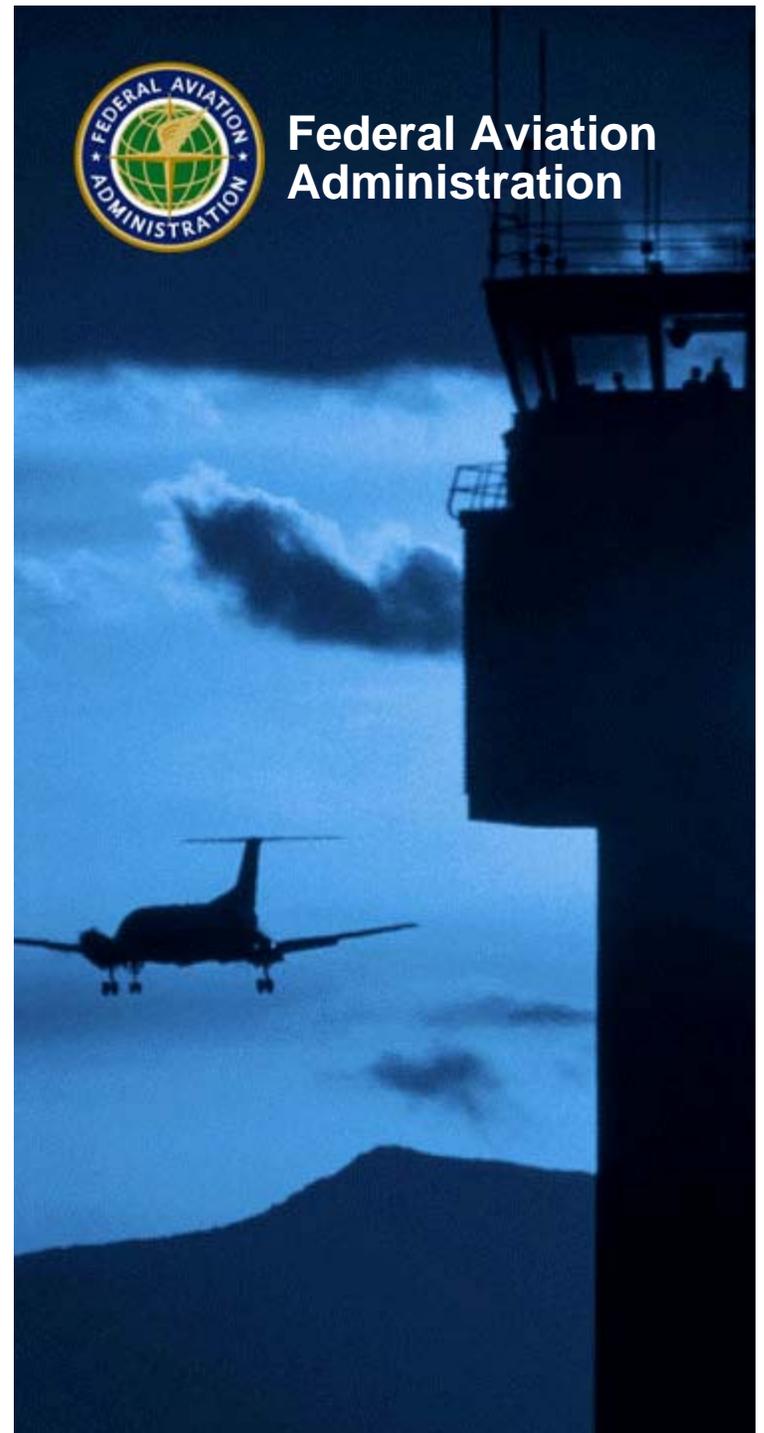


***DER Handbook
Order 8110.37
Revision E***

Major Changes



**Federal Aviation
Administration**



General Changes

- **Order Signed: March 30, 2011**
- **Compliance Date: May 30, 2011**
- **Revision level rolled from Rev D to Rev E**
- **New Order format includes**
 - *Appendix format change from 1, 2, 3, ... to A, B, C,...*
 - *No paragraph references on bottom of each page*



Organization Change



References to:

AIR-140, Delegation and Airworthiness Programs Branch

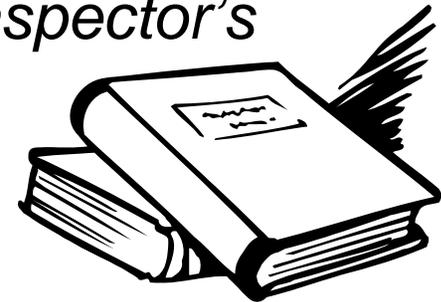
Changed to:

AIR-110, Engineering Procedures Office
– *AIR-112, Delegation Procedures Branch, has responsibility for delegation programs*

Order Number Change

References to:

- **FAA Order 8300.10**, *Airworthiness Inspector's Handbook*,



Changed to:

- **FAA Order 8900.1**, *Flight Standards Information Management Systems (FSIMS)*, Volume 4, Chapter 9

Acoustical DERs (2-5)

- **Clarified DER responsibility**
- **Acoustical DERs may witness and approve:**
 - *Noise certification tests*
 - *Noise data*
 - *Noise analysis*
 - *Test results*
- **Acoustical DERs may only recommend approval for:**
 - *Test plans*
 - *Final noise certification compliance reports*





Special Authorizations *(2-6, Appendix C)*

- **Clarified the use of Special Authorizations**
 - *ACOs may have their own specific requirements for submitting a request for Special Authorization*
 - *Special Authorization must not be used to grant a time-limited expansion of authority. Use 8100.8 requirements.*
- **Removed Special Authorization Request Form from Appendix C.**
 - *ACO may choose to still use it, but may use other methods as well*



Repair Specification DER (2-6, 3-6)

- **Added authority and functions Repair Specification DER (RS-DER)**
 - *Authority is a subset of Special Delegation for Major Repairs*
 - *“Special – Manage and Approve Repair Specifications”*
- **Added new paragraph 3-6 to describe RS-DER Functions**

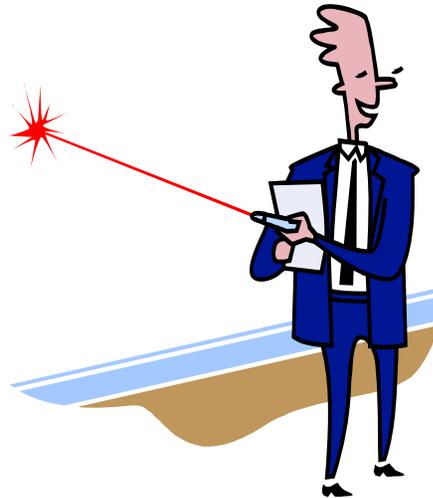


Repair Specification DER (4-13)

- **Added new paragraph 4-13 for definition of repair specification and responsibilities, functions, and limitations of RS-DER**
 - *RS describes what, when, and how for a specific repair*
 - *RS is for non-serial number related multiple-use major repairs, not from Design Approval Holder (DAH)*
 - *RS must address Instructions for Continued Airworthiness (ICA)*
 - *RS-DER is a management function similar to the ACO project manager*
 - *RS-DER may manage and RS project with critical or life-limited parts*

Repair Specification (Appendix C)

- **Inserted a new Figure 5 in Appendix C to include an example of a Repair Specification Title/Signature Page.**



Vintage DER (2-6)

- **Added authority for vintage DERs**
 - *One reference to Vintage DER in this order - 2-6.a.(2) Note 1*
- **Vintage DER is a subset of Major Repairs/Major Alterations Special Delegation**
 - *Qualifications found in 8100.8D*



SW/AEH Authority for TSOA (2-6, 2-7, Appendix C)

- **As of May 30, 2011 - Removed Software/AEH DER authority under Technical Standard Order Authorization (TSOA).**
 - *Removed special delegation for SW/AEH TSOA in section 2-6*
 - *Revised explanation of DER's potential role in TSOA in section 2-7.c.(5).*
 - *Removed samples of 8110-3 that reference TSOA from Appendix C*

DERs and AMOC (2-6)

- **DAH structural DER can approve AMOC with structural aspects**
 - *Structural ADs*
 - *Other areas where structure may be affected*
- **DERs must follow same procedures as FAA engineers – coordinate with AEG.**



DERs and AMOC (2-7)

- **Defined normal use of an AMOC for single aircraft only**

- *DER may approve global AMOC when pattern is demonstrated.*



- **Included types of AMOCs that cannot be delegated**
- **DER may approve alternate inspection method, threshold, interval for AD**

DERs and AMOC (3-2, Appendix C)

- **Distribution of form 8110-3 for AMOC**

- *Original to ACO responsible for the AD*
- *Copy to managing office*



- **Added an example in Appendix C for purpose of data on Form 8110-3 when supporting a global AMOC.**

8. PURPOSE OF DATA

In support of global AMOC (number).

Restricted Category Aircraft (2-7)

- **Added a new paragraph in section 2-7 to address DER limitations for restricted category aircraft**
 - *Must coordinate with ACO to agree on a certification basis to be used*



Other DER Authority (2-7)

- **Clarified that DERs have authority for predecessor regulations and other airworthiness requirements**
- **Clarified the meaning of DER limitations when finding compliance to non-CFR requirements**
 - *Must be identified in DER's authority*
 - *Includes standards for primary category, airship, JAA, and EASA-VLA*



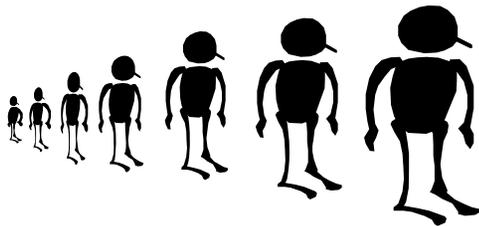
Use of DER Number (3-1)

- **Clarified the appropriate to use of a DER number with the DER signature**
 - *Used for:*
 - Certification Documents and Data
 - Certification Plans
 - Conformity Inspection Records
 - Repair Specifications
 - *Not used for:*
 - Reports
 - Drawings
 - Service documents
 - Letters



Separation of DER Duties (3-1)

- **Clarified separation of duties between DERs and Organization Designation Authorization (ODA) unit members**
 - *DER and ODA Unit Member functions are separate.*
 - *DERs do not support ODA projects*
 - *Except TC holder's DER supporting MRA ODA*
 - *ODA work cannot count for DER renewal*
 - *ACO has some discretion*



DER Candidates (3-2, Appendix C)

- **Removed candidate form from Appendix C**
- **Added text to section 3-2 to explain how DER candidates may use Form 8110-3**
 - *Candidate prepares 8110-3 for signature of authorized DER and adds note about candidate review of data.*
 - *Candidates prepares 8110-3 with note about review of data and submits directly to ACO*



Electronic Form 8110-3 (3-2)

- **Added a paragraph detailing the use of electronic versions of Form 8110-3 and electronic signatures**
 - *Electronic Form 8110-3 available on web*
 - *Must be the same as printed form*
 - *Electronic signature may be used by agreement with managing ACO*

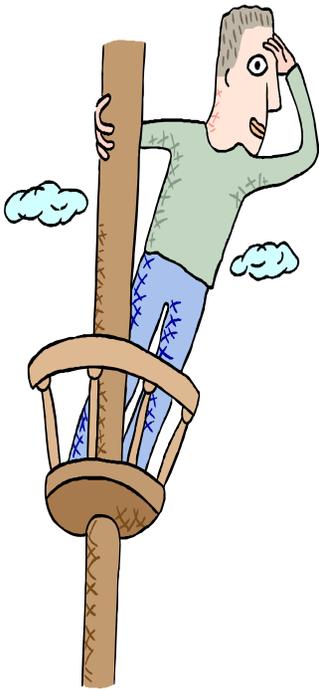


DERs and Conformity (4-1)

- **Clarified DER's role in the request for conformity**
 - *DERs may submit 8120-10, Request for Conformity*
 - *8110-3 not used to “approve” 8120-10*
 - *Reference Order 8110.44*
 - *DERs should use NACIP for conformity requests*



DERs and Test Witnessing (4-4)



- **Clarified the authority of a DER for witnessing tests**
 - *8110-3 is not appropriate for test witnessing – no finding of compliance*
 - *DER may record their participation on test results*
 - *DER may not further delegate test witnessing*

PMA Identicality (4-11)

- **Clarified DER authority for findings of identicality:**
- **Critical or life-limited parts -**
 - *DER may only recommend approval*
- **Additional requirement for engine life-limited parts -**
 - *DER must contact ACO before recommending approval*



Repairs and Alterations (4-12)

- **Added description of multiple use repair and repair specification authority.**
 - *Non-RS-DER DERs may approve data to support Repair Specification*
 - *“Future use” alterations approved via STC or ATC*
 - *“Future use” repairs approved via Repair Specification*
- **Clarified the DER’s prohibition against findings of compliance to a TSO for repairs.**
 - *Repairs to TSO articles must still be approved to the applicable airworthiness requirements.*

Repairs and Alterations (4-12)

- **Clarified the DER's role in Instructions for Continued Airworthiness (ICA) acceptance for major repairs and alterations**
 - *Some DERs may approve ICA for Electrical Wiring Interconnect Systems (EWIS)*
 - *Otherwise, no DER may accept ICA.*
- **Removed requirement to coordinate with Flight Standards for repairs and alterations**

Human Factors (4-16)

- **Added new section 4-16 describing DER's responsibility when approving data with human factors implications.**
 - *No human factors authority for DERs*
 - *Should discuss issues with ACO*



Data approval in support of 4 CFR 21.8(d) (4-17)

- Added new section 4-17 for data approval in support of 14 CFR 21.8(d).



- *“If an article is required to be approved under this chapter, it may be approved--*
 - (a) Under a PMA;*
 - (b) Under a TSO;*
 - (c) In conjunction with type certification procedures for a product; or*
 - (d) In any other manner approved by the FAA.”*

- *Special authority needed*
- *Approvals must be coordinated with FAA Headquarters*

Commercial Parts. (4-18)

- **Added new section for Commercial Parts.**
 - *FAA approved Commercial Parts List (CPL)*
 - *DAH is TC/STC and some PMA holders*
 - *DERs may not approve the original issuance or changes to the CPL*
 - *DERs may approve data in support of a commercial part replacement alternative*
 - *AC 21-45, Commercial Parts.*



Form 8110-3 Changes (Appendix C)

- **Revised form title from:**
“Statement of Compliance with the Federal Aviation Regulations”
To:
“Statement of Compliance with Airworthiness Standards”
- **Added block numbers on form**
- **Revised wording in certification section**
“Part 183 of the Federal Aviation Regulations”
To:
“14 CFR Part 183”



Multiple 8110-3 Signatures (Appendix C)

- Added a note and examples in appendix C for guidance on how to list approved data when more than one DER signs a form 8110-3.

LIST OF DATA	
6. IDENTIFICATION	7. TITLE
ABC Manual 1234 Rev B. 10/20/03	Converter Regulatory Installation Manual (approved by DER[name])
1000047 Revision A Dated 10/22/03	Drawing - Converter Regulator Cooling Mod. (approved by DER[name])
1000048 Revision C Dated 10/22/03	Drawing - Scoop Assy. - Converter Regulator Cooling (approved by DER[name])
	NOTE: This approval covers electrical details only

Compliance Date

- **Compliance Date for this Order:
May 30, 2011**

