

CERTIFICATION OF AIRBORNE ELECTRONIC HARDWARE (DO-254)

This two-day course is geared for the hardware engineer, technical manager or project manager wanting to understand DO-254 compliance in the greater context of certification as well as within the myriad of supplemental policy documents that now define what it means to comply with DO-254. UPDATED TO INCLUDE CONTENT FROM AC/AMC 20-152A.

[Understand the context of DO-254 with respect to FAA, EASA and other regulatory agencies/policy](#)

[Explore the DO-254 life cycle and objectives and learn what is applicable to your project](#)

[Review real examples and obtain free templates for project use](#)

[Examine the latest policy modifications such as Order 8110.105, AEH Job Aid and CM SWCEH-001](#)

[Understand today's hot topics and how to deal with them](#)

[See what is pertinent for Military and UAS applications](#)

In 2008, the FAA awarded Patmos Engineering Services the contract for developing and delivering the "Complex Electronic Hardware" training course that was taught at the FAA Academy to DO-254 program auditors.

From this experience and these materials, Tammy Reeve, President of Patmos Engineering Services, developed this DO-254 course offering for DO-254 applicants. Today, Tammy has taught this course to over 40 companies around the globe. The feedback has been overwhelmingly positive.

"Tammy delivers tailored training and certification support to her clients that is hands-on and practical. She is effective in helping the recipient define a usable and compliant process."

Karen Brack, Airborne Electronic Hardware Engineer, The Boeing Company

"Tammy has provided valuable training classes to hardware design and quality engineers in our company. The training material provided a fresh perspective on certification processes and allowed us to improve our own internal processes."

Gregg Stavig, Manager, Hardware Design/Verification, Crane Aerospace

Tammy was also selected as the primary developer for a military specific training on DO-254 and has delivered this training for multiple sites with great reviews.

Patmos offers this and several other industry leading compliance training courses, which can be delivered on-site or on-line, and can be tailored to your specific needs. You can also pair these classes with any other Patmos offering (such as a process "Gap Analysis") for a fully customized services package.

KNOWLEDGE
INTEGRITY
EFFICIENCY

DO-254 Training Outline

1. Certification Overview
 - Application of DO-254
 - AMC/AC20-152A
 - CRIs and Issue Papers
 - FAA Order 8110.105
 - What is CEH?
 - How does CEH get “Certified”?
 - Simple vs. Complex
 - Certification Offices
 - Military Application of DO-254
 - System Safety and DAL
 - Other Sources of Guidance or Policy
2. DO-254 Document and Lifecycle Overview
 - DO-254 Hardware Design Lifecycle Objectives and Data
 - Appendix A & B
 - CAST 31
3. Planning and the PHAC
 - Considering FAA and EASA Differences
 - Reverse Engineering
 - Additional Considerations
 - Use of Previously Developed Hardware
 - COTS (and EASA Considerations)
 - Service Experience
 - Tool Assessment & Qualification
 - Alternate Methods
4. Hardware Design Plan
 - Objectives and Common Issues
 - Traceability
 - Transition Criteria
 - Baselines
 - Design Standards
5. Hardware Validation and Verification Plan
 - Validation Objectives and Common Issues
 - Verification Objectives and Content
 - Verification and Validation Standards
6. Hardware Configuration Management plan
 - Objectives and Common Issues
 - HCI, HECI and VCI
 - AMC/AC 20-189 (Managing Open Problem Reports)
7. Hardware Process Assurance Plan
 - Objectives and Content
8. Certification Liaison and SOI Audits
 - LOFI and LOI
9. Objectives and Pitfalls of the Hardware Life Cycle
 - Planning Phase
 - Requirements Phase
 - Conceptual Design Phase
 - Detailed Design Phase
 - Implementation Phase
 - Production Transition Phase
 - Verification & Validation (Including Elemental Analysis)
 - Robustness
 - Test
 - Production Transition
10. Appendix B Methods for DAL A/B
11. AEH Job Aid
12. AEH Order 8110.105 and SWCEH-001