

CERTIFICATION OVERVIEW: with overview of ARP 4754A

This one-day course is best suited for the hardware/software engineer or manager wanting to understand the greater scope of Aircraft/System level development and certification processes including environmental testing and interfaces to the item level compliance processes.

Explore the certification environment including the FAA, EASA, and other Regulatory Agencies

Understand what is a Means of Compliance and how this relates to industry standards

Examine the policy and processes for aircraft and systems certification

Explore the contents of ARP 4754A

Understand safety assessment in the context of system development

See the connections between ARP 4754A, DO-178C, and DO-254

Since 2000, Tammy Reeve, President of Patmos Engineering Services, has been involved in compliance auditing for airborne software and electronic hardware that make up modern aircraft systems. 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 both her compliance auditing experience and FAA training experience, Tammy developed this course offering for systems developers and DO-178C/DO-254 applicants seeking a big picture understanding of aircraft certification and compliance. The feedback Tammy’s training courses has been overwhelmingly positive.

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**

ARP 4754A/DO-160G Training Outline

1. Civil Aircraft Certification and the FAA
 - Certification Authorities
 - FAA, EASA, etc.
 - DOAs, ODAs, Designations and Approval
 - CFR (and EASA Equivalent) Regulations
 - Regulation and Policy
 - Civil and Military Regulation
 - Types of Approval Certificates
 - Type Certificate
 - Products and Parts Approval
 - Technical Standard Orders
 - Part Manufacturer Approval
 - Supplemental Type Certificates
 - Production Certificate
2. Means of Compliance and the FAA Regulation
 - Potential Means of Compliances
 - Industry Standards as MOC
 - DO-178C
 - DO-254
 - Other SW/HW Certification Related Documents
 - DO-160G
 - ARP 4754A
3. ARP 4754A - Guidelines for the Development of Civil Aircraft Systems
 - Related Documents
 - Overview of Document
 - Overview of Processes
 - Development Planning and Processes
4. Safety Program Planning and Safety Assessment
 - Hazards and Effects
 - Failure Rates
 - Fault Tree Analysis
 - Functional Hazard Assessment
 - Common Cause Analysis
 - (Preliminary) Aircraft/System Safety Assessment
5. Design Assurance Level
6. FDALs and IDALs

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