

# CERTIFICATION PROCESS OVERVIEW: Aircraft and Systems to Hardware/Software

This half-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 their interfaces to the item level compliance processes.

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

*Explore the High-Level Regulation and how that drives certification and compliance top down*

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

*Examine the policy and processes for aircraft and systems certification*

*Understand the role of safety in the certification context*

*See the connections from regulation to aircraft to item level*

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**

# Certification Overview Training Outline

1. Civil Aircraft Certification and the FAA
  - Certification Authorities
  - ODAs and DERs in this process
  - CFR Regulations
  - Systems Development objectives and tailoring based on DAL
  - Types of Approvals
    - TC
    - STC
    - TSO
    - PMA
2. Means of Compliance and Overview of the FAA Regulation
  - Potential Means of Compliances
  - Industry Standards as MOC
  - DO-178C
  - DO-254
  - Other SW/HW Certification Related Documents
  - DO-160G
  - ARP 4754B
3. ARP 4754B Overview
4. References
5. Acronyms

**No Better Choice than Patmos.**