



Bridging Aerospace and Defense Compliance Gaps . . . *Optimized*



## COMPREHENSIVE TRAINING SOLUTIONS FOR ADVANCED AND COMPLEX ELECTRONICS IN AIRCRAFT

As the avionics guideline for design assurance of simple and complex airborne electronic hardware, DO-254 is required for virtually every aerospace-related system project. It establishes certification information from project conception, planning, design, implementation, and testing, and has become the go-to safety standard for today's aircraft by evaluating hardware and hardware system conditions and capabilities using objective-driven and process-oriented criteria. As such, a comprehensive understanding of DO-254 is the only way to ensure aircraft can safely carry people and property across the globe and that your avionics project passes compliance tests. That's where ConsuNova can help.

Each DO-254 training session is tailored for your organization's or team's specific needs. Attendees learn the real intent of DO-254 and the best practices that make projects adhering to DO-254 successful. All DO-254-related courses start with a brief history of the standard to show its evolutionary path, and every session will demonstrate real-world, current and practical applications of the guideline regarding aircraft hardware and systems.

### KEY COVERAGE

- Overview of the Certification Process for TC/STC vs TSO/ETSO products
- Emphasis on ARP 4754A (Systems Dev.) in relation to DO-254.
- Emphasis on ARP 4761/4761A (Safety Assessment)
- In-depth Planning
- Requirements & Design Workshop/Samples
- Performing Compliance Audits
- Compliance Options for DAL-D or Military
- Differences in FAA vs. EASA compliance.
- COTS, COTS IP & Previously Developed HW/SW

### COURSE OBJECTIVES

- Understand the true foundation and rationale for DO-254
- Apply military and commercial avionics certification and compliance techniques
- Understanding and applying leading DO-254 practices
- Applying DO-254 Risk, and Complexity reduction techniques
- Cost estimation and reduction practices
- How to identify and apply dedicated DO-254 tools
- In-depth Function Failure Path Analysis (FFPA) Methods
- Single Event Effects (SEE) & Single Event Upsets (SEU) analysis process
- Simple Electronics Hardware (SEH) Compliance
- Achieving compliance with IP CORE, COTS IP, and COTS components
- Compliance to AMC 20-152A

# SPECIALIZED DO-254 TRAINING SOLUTIONS

## ATTENDEES RECEIVE

- Complete Training Manual
- DO-254 PHAC Template
- PHAC Checklist

## TRAINING VALUES

- Industry's Best Practices
- World's most experienced instructors
- Up-to-date Certification Contents

## WHO SHOULD ATTEND

- Hardware Engineers, Systems Engineers
- Managers, Quality Assurance

## TRAINING MODULES



### PRIMARY

- DO-254 & History & Needs
- DO-254 Principles
- ARP 4761 Safety Assessments
- Doc. Hierarchy & Criticality Levels
- DO-254 Certification Plans (PHAC, HCMP, HVVP, HDP, HPAP)
- DO-254 Design Aspects
- Implementation & Reviews
- DO-254 Verification & Overview and Objectives
- DO-254 Traceability Objectives & Tools/Methods
- DO-254 Compliance Audits
- Tool Qualification



### ADVANCED

- DO-254 Advanced Methods, Tools & Strategies
- DO-254 Requirements Exercise
- Problem Reporting & Streamlining
- Gap Analysis & Reverse Engineering
- Verification Best Practices
- Functional Failure Path Analysis (FFPA)
- DO-254 Elemental Analysis
- Emphasis on differences between FAA vs. EASA compliance
- Walkthrough of DO-254 Planning Samples and Templates



### SPECIALIZED

- Certification Process for TC/STC vs TSO/ETSO products
  - Emphasis on ARP 4761/4761A (Safety Assessment)
- Performing Compliance Audits
- Req. and Design Workshop
- Prior Developed HW (PDH) Compliance & Reverse Engineering
- DAL-D or Military Compliance
- In-depth Function Failure Path Analysis (FFPA) Methods
- Single Event Effects/Upsets (SEE/U)
- Simple Electronics Hardware Compliance (SEH)
- IP CORE and COTS IP & COTS usage compliance to EASA memo

## About ConsuNova

ConsuNova was founded to provide engineering services, processes and enabling tools that support compliance and certification primarily to the Aerospace market. Our mission is to add value to our customers' lives and help them fulfill their invaluable duties. We focus on accuracy, completeness and efficiency to help customers achieve their goals.



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