



Airworthiness Fundamentals Certificate Program

Customizable for UAS/UAV/UAM

► ctme.caltech.edu/airworthiness

Customize this—Deliver in-house

Format: 5-Day, Instructor-Led

Cohort size: 15–25

Location: Company, Base/Station, Agency Facilities

Program Objectives

Airworthiness is the measure of an aircraft’s suitability for safe flight. Certification of airworthiness is conferred by a certificate from the state of aircraft registry national aviation authority, and is maintained by performing the required maintenance actions. Airworthiness is key to the safety of humans and property both in the air and on the ground. The subject is quite broad, requiring multi-domain knowledge to assure safe flight.

Through expert-led action learning and hands-on, real-world case discussions, you will be able to articulate the steps towards realization. This program accelerates you and your team’s capacity to explore research, development, testing, evaluation, and sustainability through a flexible and robust format with highly experienced instructors and facilitators.

Learning Objectives

This 5-day program provides a comprehensive refresher for the experienced airworthiness professional, as well as providing an introduction for new airworthiness practitioners.

Learnings include:

- Understanding the entry points for determining which airworthiness processes and standards apply to specific aviation platforms of interest (UAS/UAV/UAM/Fixed Wing/Rotary)
- Recognizing which US and International airworthi-

ness authorities administer civil and public aircraft as well as military; exploring airspace constructs

- Recognizing common terminology and acronyms used in airworthiness processes and standards
- Becoming familiar with and understanding the role of the systems engineering processes required to manage airworthiness
- Understanding how to locate airworthiness resources for information and experienced professionals
- Becoming familiar with airworthiness certification criteria, standards, and methods of compliance
- Understanding the role sustainment plays in continuing airworthiness
- Understand the role quality assurance plays in product airworthiness

Participants

This program addresses the needs of systems engineering professionals in aerospace, defense, avionics, ground systems, flight management systems, power, and communications. Senior and early-career engineers, analysts, designers, and policymakers will examine a structured approach to airworthiness. Program managers, project managers, researchers, and support teams will explore how Airworthiness Fundamentals can enable mission success through new platforms and capabilities.

**To customize this program for your organization, contact a program advisor. 626.395.4042
ctme@caltech.edu**

Why CTME

Leaders who aspire to innovate and execute come to Caltech's Center for Technology and Management Education (CTME). Here, you will do more than attend a class. You will develop new mindsets, technology skills, and leadership capacity to master the complex issues that challenge your organization today.

Instructors with real industry insight—Each of our educators bring decades of real world experience and leadership from roles in research, engineering, commercialization, manufacturing, operations and executive accountability of technology-driven organizations and government agencies.

Action-learning is more than just experiential. We facilitate real impact through small groups working on actual problems which, with Caltech coaching and structure, grows individuals, teams, and organizations to adapt to new challenges.

Concentrated customization is how we distinctively prepare curricula and content. We work with clients to understand their challenges and capability needs for 21st century talent. Integrating your specific context, cases, and methods with the proprietary approaches of Caltech and its affiliates, makes CTME your best learning partner.

Global delivery is how we scale experiences and results. Going beyond online programs, we convene rotating cohorts through their company's international locations. Learners value guided facilitation and mastery where personal interactions are more productive.

About Caltech

Caltech is a world-renowned science and engineering institute that marshals some of the world's brightest minds and most innovative tools to address fundamental scientific questions and pressing societal challenges. Caltech prizes excellence and ambition. The contributions of Caltech's faculty and alumni have earned national and international recognition, including 39 Nobel Prizes. The Institute manages the Jet Propulsion Laboratory (JPL) for NASA.

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Allen Middleton is a principal engineer at Lockheed Martin Aeronautics, The Skunk Works, in Palmdale, California. He specializes in aeronautical engineering, systems engineering, flight testing, project management, airworthiness, flight safety, and certification.

Mr. Middleton has worked for Lockheed Martin for 38 years on projects ranging from reconnaissance to rotary and from large transport and refueling to smaller regional jets (U2, F-35, C-130, C-5, C-141, HH-71, UH-1N, Boeing 737, Learjet 35A, and Hawker 800XP). Additionally, he has worked with other aerospace and aviation electronics companies including Airbus, Augusta Westland, Bell Helicopter, Boeing, Bombardier, DRS Technologies, Gulfstream, Hawker Aircraft, Honeywell, Learjet, Northrop Grumman, Pratt and Whitney, Raytheon, and Rockwell Collins.

John Hardell is president of Aircraft Maintenance Management And Training Consulting, Inc. He has over 50 years of experience in all aspects of aircraft development, maintenance, maintenance management, aircraft major structural modification programs, and FAA Repair Station Management.

Mr. Hardell worked for GE Aviation, where he served as repair station manager, flying test bed manager, and flight test operation plant manager. He designed the GE Aviation Maintenance Facility in Victorville, California, where he was responsible for all preliminary design functions and working with the design engineers to ensure that hangars met all required maintenance, engineering, administrative and support function requirements. John also served as manager of quality assurance for Matrix Aeronautical.

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Programs, dates, fees, and instructors are subject to change.

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