Aviation Safety & Accident Investigation

15 – 19 November 2027
Edinburgh (UK)

UK Traininig
PARTNER



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Why This Course

Aviation safety is the foundation of every successful air operation.

Understanding how and why accidents occur — and how to prevent them — is vital for ensuring operational excellence, regulatory compliance, and public trust.

This intensive program provides participants with a structured overview of aviation safety principles and accident investigation methodologies, aligned with ICAO Annexes 13 and 19. Through real-world case studies and simulation exercises, participants will gain the skills to identify hazards, investigate incidents, and promote a strong safety culture within their organizations.

What You'll Learn and Practice

By joining this program, you will:

- Understand international standards and frameworks for aviation safety and investigation.
- Learn to conduct systematic accident and incident investigations.
- Strengthen analytical and root cause identification skills.
- Gain insight into human and organizational factors affecting aviation safety.
- Develop strategies to enhance safety culture and prevent future occurrences.

The Program Flow

Day 1: Aviation Safety Foundations

- The importance of aviation safety in global operations.
- ICAO safety standards: Annex 13 Accident Investigation and Annex 19 Safety Management Systems.
- Components of Safety Management Systems SMS: policy, risk, assurance, and promotion.
- Case study: analyzing lessons learned from a major aviation accident.

Day 2: Human and Organizational Factors in Safety

- The role of human performance in incidents and accidents.
- Understanding the SHELL model and the Swiss Cheese Theory.
- Teamwork, communication, and fatigue management in aviation operations.
- Workshop: evaluating human factors in a flight and maintenance scenario.



Day 3: Accident Investigation Process and Techniques

- Legal basis, objectives, and scope of accident investigation.
- Steps of investigation: notification, on-site evidence collection, analysis, and reporting.
- Data collection tools: interviews, photographs, flight data recorders FDR/CVR, and documentation.
- Simulation: conducting an on-site accident investigation and evidence review.

Day 4: Analysis, Root Cause Identification, and Reporting

- Techniques for identifying immediate and root causes.
- Using analytical tools: Fault Tree Analysis FTA and 5 Whys Method.
- Structuring factual and analytical investigation reports.
- Practical exercise: writing and presenting a mock investigation report.

Day 5: Safety Culture and Continuous Improvement

- The role of leadership in building and sustaining a safety culture.
- Promoting a “Just Culture” and effective safety reporting systems.
- Integrating investigation findings into operational training and risk management.
- Action planning: developing a post-course aviation safety improvement roadmap.

Individual Impact

- Build a solid understanding of safety management and investigation frameworks.
- Strengthen analytical and decision-making capabilities in safety events.
- Develop professional competence in reporting and safety communication.
- Gain the confidence to contribute proactively to accident prevention efforts.
- Enhance credibility as a safety-conscious aviation professional.

Work Impact

- Improve aviation safety oversight and compliance with international standards.
- Strengthen incident and accident investigation capabilities.
- Enhance operational resilience through systematic risk management.
- Foster a culture of learning, accountability, and continuous improvement.
- Build trust among regulators, stakeholders, and the flying public.

Training Methodology

This program emphasizes practical, scenario-based learning with a balance of theory, discussion, and simulation.

Learning methods include:



- Real-world aviation case studies and investigation reports.
- Group exercises on human factors and risk analysis.
- On-site accident investigation simulations.
- Root cause analysis and reporting workshops.
- Interactive discussions and peer review of investigation outcomes.

Beyond the Course

Upon completion, participants will be equipped to apply international best practices in aviation safety management and accident investigation.

They will leave with practical skills to conduct investigations, identify systemic risks, and contribute to a stronger, safer aviation industry.

