Training Course on Air Transport System Resilience and Continuity Planning

Professional Development Training Course Outline

Category	Aviation and Airport Management	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The global air transport industry faces an increasingly complex landscape marked by geopolitical instability, technological disruptions, extreme weather events, and evolving public health crises. Ensuring the **resilience** and **continuity** of air transport systems is no longer a luxury but a strategic imperative for global connectivity, economic stability, and public safety. This comprehensive training course provides aviation professionals with the essential knowledge, tools, and best practices to proactively identify, assess, mitigate, and recover from disruptions, safeguarding operations and building robust **organizational resilience**.

Training Course on Air Transport System Resilience and Continuity Planning emphasizes a holistic approach to **aviation risk management** and **crisis preparedness**, integrating industry best practices with real-world scenarios. Participants will gain a deep understanding of **business continuity planning (BCP)**, **emergency response**, and **disaster recovery** within the unique context of air transport. Through practical exercises and **case studies**, this training empowers individuals and organizations to develop adaptive strategies, enhance **operational efficiency**, and maintain critical services amidst unforeseen challenges, ensuring a more secure and reliable future for air travel.

Programme Curriculum

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Course Duration

10 days

Course Objectives

Upon completion of this course, participants will be able to:

1. Define and differentiate key concepts of resilience, continuity, and crisis management within the air transport sector.
2. Conduct comprehensive risk assessments and business impact analyses (BIA) for critical aviation operations.
3. Develop robust Business Continuity Plans (BCPs) tailored to the specific needs of airports, airlines, and air traffic control.
4. Implement effective emergency response procedures and protocols for various aviation incidents.
5. Master crisis communication strategies for internal and external stakeholders during disruptive events.
6. Integrate cybersecurity resilience and data protection measures into continuity planning.
7. Apply lessons learned from past aviation incidents and global disruptions to enhance preparedness.
8. Understand regulatory frameworks and international standards governing air transport resilience (e.g., ICAO SARPs).
9. Foster a culture of safety and resilience within their organizations through effective leadership and training.
10. Leverage emerging technologies like AI and IoT to enhance predictive capabilities and operational agility.
11. Develop supply chain resilience strategies to minimize disruptions in critical aviation logistics.
12. Evaluate and test continuity plans through drills, simulations, and tabletop exercises.
13. Contribute to the long-term strategic planning for a more secure and adaptable air transport system.

Organizational Benefits

- Minimizing downtime and ensuring continuity of critical services during unforeseen events.
- Mitigating the economic impact of disruptions through proactive planning and rapid recovery.
- Strengthening preparedness against a wide range of threats, including cyberattacks and natural disasters.
- Demonstrating a commitment to safety, reliability, and preparedness to passengers, regulators, and partners.
- Efficiently deploying resources during crises and streamlining recovery efforts.
- Protecting brand image by demonstrating effective crisis response and business continuity.
- Adhering to national and international aviation safety and security standards.

- Differentiating as a resilient and reliable partner in the global air transport ecosystem.
- Empowering staff with the knowledge and skills to respond effectively to emergencies.
- Utilizing technology to build more adaptive and resilient systems.

Target Audience

1. Responsible for overall airport functionality and emergency preparedness.
2. Involved in flight operations, crew management, and safety systems.
3. Key to managing airspace and ensuring continuity during disruptions.
4. Focused on safeguarding passengers, cargo, and infrastructure.
5. Ensuring adherence to national and international aviation standards.
6. Across airlines, airports, and related aviation entities.
7. Directly involved in incident management.
8. Involved in aviation policy, disaster preparedness, and national security.

Course Outline

Module 1: Introduction to Air Transport System Resilience

- Defining **Air Transport System Resilience** and its importance in the modern aviation landscape.
- Understanding the evolving threat environment: natural disasters, cyber threats, pandemics, geopolitical events.
- Key concepts: **Business Continuity, Operational Resilience, Disaster Recovery, Crisis Management.**
- Regulatory landscape and international frameworks (e.g., ICAO, IATA) for aviation safety and security.
- **Case Study:** Analysis of a major regional airport shutdown due to extreme weather and the initial response challenges.

Module 2: Risk Assessment and Business Impact Analysis (BIA)

- Methodologies for **identifying, assessing, and prioritizing risks** in air transport operations.
- Conducting a **Business Impact Analysis (BIA)**: identifying critical functions, RTOs (Recovery Time Objectives), and RPOs (Recovery Point Objectives).
- Quantitative and qualitative risk assessment techniques specific to aviation.
- Developing risk registers and mitigation strategies.
- **Case Study:** BIA for an airline's critical IT systems after a ransomware attack, identifying impact on flight scheduling and passenger services.

Module 3: Developing the Air Transport Business Continuity Plan (BCP)

- Structuring a comprehensive **BCP** for an airport, airline, or air navigation service provider (ANSP).
- Key components of a BCP: emergency procedures, communication plans, roles and responsibilities.
- Developing recovery strategies for critical aviation infrastructure and services.
- Integrating BCP with existing Safety Management Systems (SMS) and Security Management Systems (SeMS).
- **Case Study:** Creation of a detailed BCP for an international airport, including alternative power sources and temporary control tower procedures.

Module 4: Emergency Response Planning and Incident Command System

- Principles of **Emergency Response Planning (ERP)** in aviation.
- Implementing the **Incident Command System (ICS)** for effective multi-agency coordination.

- Developing emergency checklists and Standard Operating Procedures (SOPs).
- Training and equipping emergency response teams.
- **Case Study:** The coordinated response to an aircraft accident on the airfield, highlighting communication and operational challenges between airport fire services, police, and airline personnel.

Module 5: Crisis Communication and Stakeholder Management

- Developing a **crisis communication strategy** for internal and external audiences.
- Effective media relations and social media management during a crisis.
- Engaging with passengers, employees, regulators, and the public.
- Setting up crisis communication centers and protocols.
- **Case Study:** A major airline's public relations response to a widespread IT system failure causing global flight cancellations.

Module 6: Cybersecurity Resilience in Air Transport

- Understanding **cyber threats** to aviation systems: ATC, airline IT, airport infrastructure.
- Implementing **cybersecurity best practices** for data protection and operational integrity.
- Developing **cyber incident response plans** and recovery procedures.
- Regulatory requirements for aviation cybersecurity.
- **Case Study:** An analysis of a cyberattack on an airline's booking system and the recovery steps taken to restore services and protect customer data.

Module 7: Supply Chain Resilience in Aviation

- Mapping the aviation supply chain: aircraft parts, fuel, catering, ground support.
- Identifying vulnerabilities and single points of failure in the **aviation supply chain**.
- Strategies for diversifying suppliers and building redundant supply routes.
- Impact of global events on aviation logistics.
- **Case Study:** The impact of a global pandemic on aircraft spare parts availability and strategies implemented by an MRO (Maintenance, Repair, and Overhaul) provider to maintain operations.

Module 8: Human Factors and Organizational Culture in Resilience

- The role of **human factors** in incident prevention and response.
- Building a **culture of safety and resilience** within aviation organizations.
- Leadership in crisis situations and fostering adaptive capabilities.
- Employee training, awareness, and psychological first aid.
- **Case Study:** Examining a pilot fatigue incident and how a robust safety culture and reporting system helped prevent a more serious outcome.

Module 9: Regulatory Compliance and International Standards

- Deep dive into **ICAO Standards and Recommended Practices (SARPs)** related to safety, security, and continuity.
- National aviation regulations and their impact on resilience planning.
- Auditing and compliance frameworks for BCP and ERP.
- Interoperability and cooperation with international bodies.
- **Case Study:** An airport's journey to achieve ISO 22301 certification for Business Continuity Management and the challenges faced.

Module 10: Leveraging Technology for Enhanced Resilience

- Exploring **emerging technologies**: AI, IoT, blockchain, predictive analytics for **aviation resilience**.
- Data-driven decision-making in crisis management.
- Automation and intelligent systems for operational continuity.
- **Case Study:** Implementation of predictive maintenance using AI to reduce aircraft groundings and enhance fleet availability.

Module 11: Airport Operations and Infrastructure Resilience

- Specific challenges and strategies for **airport resilience**: runways, terminals, airside operations.
- Power redundancy, communication systems, and critical infrastructure protection.
- Passenger flow management and evacuation procedures.
- **Case Study:** A large airport's response to a prolonged power outage, including backup systems, passenger care, and coordination with airlines.

Module 12: Airline Operations Resilience

- Strategies for **airline operational resilience**: fleet management, crew scheduling, network optimization.
- Disruption management systems and recovery tools.
- Passenger re-accommodation and irregular operations handling.
- **Case Study:** An airline's recovery plan following a major volcanic ash cloud event, demonstrating efforts to re-route flights and rebook passengers.

Module 13: Air Traffic Management (ATM) and ANSP Resilience

- Ensuring **ATM resilience**: air traffic control systems, navigation aids, communication infrastructure.
- Contingency plans for airspace closures and system failures.
- Cross-border coordination and regional resilience initiatives.
- **Case Study:** The implementation of a backup ATC center after a primary facility experienced a critical system failure, ensuring uninterrupted air traffic services.

Module 14: Testing, Training, and Continuous Improvement

- Designing and conducting **drills, tabletop exercises, and full-scale simulations** for BCP and ERP.
- Post-incident analysis and **lessons learned** processes.
- Developing key performance indicators (KPIs) for resilience.
- Establishing a continuous improvement framework for resilience programs.
- **Case Study:** A large-scale multi-agency exercise simulating a terror attack at a major airport, evaluating response effectiveness and identifying areas for improvement.

Module 15: Future Trends and Strategic Outlook

- Anticipating **future risks** and emerging threats in air transport.
- The impact of climate change on aviation resilience.
- Innovation in resilience technologies and methodologies.
- Building a long-term **strategic roadmap for air transport system resilience**.
- **Case Study:** Discussing the aviation industry's long-term strategies for decarbonization and sustainable aviation fuel (SAF) production to enhance environmental resilience.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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