Advanced Airside Safety and Strategic Risk Management Training Course



16 - 20 Nov 2026

Cape town

4600 € (Per Person)

Ref: #AIR2604_270191

Course Introduction / Overview:

This comprehensive training course is designed to equip aviation professionals with the advanced skills and strategic mindset required to manage and mitigate risks in the dynamic airside environment. Moving beyond basic compliance, the curriculum delves into the core principles of a proactive Safety Management System (SMS), emphasizing the integration of safety into every facet of airport operation. Participants will explore the pioneering work of safety science experts like Dr. James Reason, whose "Swiss Cheese Model" of accident causation, detailed in his book "Managing the Risks of Organizational Accidents", provides a foundational framework for understanding systemic failures. This course, offered by BIG BEN Training Center, focuses on developing a holistic approach to safety, combining rigorous risk assessment methodologies with a deep understanding of human factors and organizational culture. The goal is to empower leaders to not only prevent incidents but also to build a resilient, world-class safety culture that enhances operational efficiency, protects assets, and ensures the well-being of all personnel and passengers on the airside.

Target Audience / This training course is suitable for:

- Airport Operations Managers and Directors.
- Airside Safety Officers and Managers.
- Ground Handling Managers and Supervisors.
- Airline Station Managers.
- Aviation Safety and Compliance Auditors.
- Airfield Planners and Engineers.
- Emergency Response Planners.
- Civil Aviation Authority Representatives.
- Air Traffic Control Supervisors.
- Ramp and Apron Controllers.

Target Sectors and Industries:

- Commercial and International Airports.
- Cargo and Freight Airlines and Hubs.
- Ground Handling and FBO Service Providers.
- Corporate and Private Aviation.
- Military Airbases and Joint-Use Airfields.
- Government, Regulatory, and Civil Aviation Authorities.
- Aviation Consulting Firms.

Target Organizations Departments:

- Airport Operations.
- Safety and Compliance.
- Ground Handling Services.
- Airfield Maintenance.
- Emergency Response and Fire Services.
- Security and Asset Protection.
- Corporate Risk Management.
- Quality Assurance.
- Human Resources and Training.

Course Offerings:

By the end of this course, the participants will have able to:

- Develop and implement a comprehensive Safety Management System (SMS) aligned with ICAO standards.
- Conduct systematic hazard identification and sophisticated risk assessments for all airside activities.
- Analyze and mitigate human factors to reduce the likelihood of operational errors.
- Master advanced techniques for airside incident investigation and root cause analysis.
- Design and execute effective airport emergency response plans and drills.
- Utilize Safety Performance Indicators (SPIs) to monitor and continuously improve safety outcomes.
- Champion and cultivate a positive, proactive safety culture within their organization.
- Ensure full compliance with national and international aviation safety regulations.
- Manage the unique risks associated with airside construction and low-visibility operations.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, interactive, and highly practical, ensuring that theoretical knowledge is translated into tangible skills. We employ a blended learning approach that combines expert-led presentations with dynamic group discussions, allowing participants to share experiences and learn from their peers. A significant portion of the course is dedicated to analyzing real-world case studies of airside incidents, enabling a deep dive into causal factors and preventative strategies. Interactive workshops and simulation exercises will challenge participants to apply risk assessment tools and decision-making frameworks to complex operational scenarios. Team-based projects will focus on developing safety improvement plans and emergency response protocols, fostering collaboration and strategic thinking. Continuous feedback from the instructor and peer review sessions are integral to the learning process, ensuring participants can refine their understanding and confidently apply new competencies in their professional roles. This hands-on approach guarantees a stimulating and effective learning journey.

Course Agenda (Course Units):

Unit One: Foundations of Airside Safety and Management Systems

- Introduction to Airside Operations and its Unique Risk Environment.
- The Evolution of Aviation Safety Thinking.
- International and National Regulatory Frameworks (ICAO, EASA, FAA).
- Core Components of a Safety Management System (SMS).
- The Four Pillars of SMS: Safety Policy, Risk Management, Safety Assurance, and Safety Promotion.
- Roles and Responsibilities in Airside Safety Management.
- Developing a Robust Safety Policy and Setting Clear Objectives.

Unit Two: Strategic Risk Management and Hazard Identification

- Principles of Proactive and Predictive Hazard Identification.
- Techniques for Conducting Airside Safety Audits and Inspections.
- Risk Assessment Methodologies and the Risk Matrix.
- Foreign Object Debris (FOD) Prevention and Management Programs.
- Managing Wildlife Hazards on the Airfield.
- Assessing Risks in Airside Vehicle Operations and Pedestrian Control.
- Quantitative and Qualitative Risk Analysis Techniques.

Unit Three: Human Factors and Operational Safety Procedures

- Understanding Human Performance and Limitations in Aviation.
- The Threat and Error Management (TEM) Framework.
- Dr. James Reason’s Models of Human Error and Organizational Accidents.
- Safety in Apron and Ramp Operations.
- Runway and Taxiway Safety Procedures.
- Managing Aircraft Turnaround and Ground Handling Safety.
- Procedures for Low Visibility Operations (LVO).

Unit Four: Incident Investigation and Emergency Response

- The Principles of Effective Incident and Accident Investigation.
- Root Cause Analysis Techniques (5-Whys, Fishbone Diagrams).
- Developing and Implementing an Airport Emergency Plan (AEP).
- Coordination with External Agencies during an Emergency.
- Conducting Effective Emergency Drills and Exercises.
- Crisis Communication and Media Management Strategies.
- Learning from Incidents: The Role of a Non-Punitive Reporting System.

Unit Five: Cultivating a World-Class Safety Culture

- Defining and Measuring Safety Culture.
- The Concept of a 'Just Culture' and its Implementation.
- Leadership's Role in Championing Airside Safety.
- Techniques for Effective Safety Promotion and Communication.
- Developing and Monitoring Safety Performance Indicators (SPIs).
- The Principles of Continuous Improvement in Safety Management.
- Future Trends and Technologies in Airside Safety.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

Considering the principles of a 'Just Culture', how can an organization effectively balance accountability for reckless behavior with the need for open reporting of human error in a high-consequence airside environment?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by moving beyond standard procedural training to cultivate a strategic leadership perspective on airside safety. While many programs focus on regulatory compliance and operational checklists, our curriculum emphasizes the "why" behind the "what", empowering participants with the critical thinking skills to build truly resilient safety systems. We place a significant focus on the complex interplay of human factors, organizational culture, and systemic risk, drawing on advanced academic models to provide a deeper understanding of accident causation. The course is not about simply learning rules; it is about mastering the art and science of proactive risk management. By integrating case studies, leadership challenges, and strategic planning exercises, we ensure that participants leave not just as safety officers, but as safety leaders capable of driving cultural change and embedding a world-class safety ethos into the very fabric of their organization. This strategic, culture-focused approach is what makes our training a transformative experience rather than a simple instructional program.