Integrated Airport Control Center (AOCC) Operations Training Course



14 - 18 Dec 2026

Cape town

4600 € (Per Person)

Ref: #AVI1234_270612

Course Introduction / Overview:

The Integrated Airport Control Center (AOCC) serves as the nerve center of any modern airport, orchestrating a complex symphony of airside and landside activities to ensure safety, efficiency, and a seamless passenger experience. This intensive training course provides a comprehensive exploration of AOCC functions, moving from foundational principles to advanced operational strategies. As highlighted by aviation systems expert Dr. R. John Hansman, the integration of technology and human factors is paramount in managing the increasing complexity of air travel. This program delves into the core tenets of Airport Collaborative Decision Making (A-CDM), resource management, and irregular operations (IROPS) handling. Participants will gain a holistic understanding of the interconnectedness of various airport stakeholders, including airlines, ground handlers, and air traffic control. The curriculum offered by BIG BEN Training Center is designed to equip professionals with the practical skills and strategic foresight needed to optimize airport performance, mitigate disruptions, and lead operations with confidence. By examining real-world scenarios and established best practices, this course transforms theoretical knowledge into actionable expertise for managing the dynamic environment of a world-class airport control center.

Target Audience / This training course is suitable for:

- Airport Operations Managers and Directors.
- AOCC Duty Managers and Supervisors.
- Airline Operations Control Center (AOC) Staff.
- Ground Handling Operations Managers.
- Air Traffic Management Personnel.
- Airport Emergency and Crisis Response Planners.
- Aviation Authority and Regulatory Body Officials.
- Airport Systems and IT Specialists.
- Terminal and Airside Operations Staff.
- Airport Safety and Compliance Officers.

Target Sectors and Industries:

- Air Transportation and Aviation.
- Airport Management and Operations.
- Airline Industry.
- Ground Handling and Logistics Services.
- Air Cargo and Freight Forwarding.
- Governmental bodies and Civil Aviation Authorities.
- Aviation Consulting and Technology Providers.

Target Organizations Departments:

- Airport Operations.
- Airside and Ramp Management.
- Terminal Operations.
- Airline and Hub Control Centers.
- Ground Services and Handling.
- Airport Security and Safety Management.
- Emergency Planning and Response.
- Information Technology and Systems Integration.
- Corporate Strategy and Planning.

Course Offerings:

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

- Develop a comprehensive understanding of the AOCC's role within the airport ecosystem.
- Master the principles and implementation stages of Airport Collaborative Decision Making (A-CDM).
- Effectively manage and allocate critical airport resources such as gates, stands, and check-in counters.
- Formulate and execute robust plans for handling irregular operations (IROPS) and airport emergencies.
- Enhance inter-departmental and stakeholder communication for seamless operational flow.
- Utilize key performance indicators (KPIs) to monitor and improve airport operational efficiency.
- Integrate modern technologies and data analytics into AOCC decision-making processes.
- Implement best practices for safety management systems (SMS) within an operational control context.
- Lead and coordinate multi-agency responses during crisis situations.
- Analyze and optimize passenger and baggage flow through integrated operational control.

Course Methodology:

The training methodology for this course is centered on creating an immersive and practical learning environment that bridges theory with real-world application. BIG BEN Training Center employs a blended approach that combines expert-led instruction with highly interactive modules. Participants will engage in detailed case study analyses of major airport operational successes and challenges, allowing them to dissect complex scenarios and understand the decision-making processes involved. Collaborative group exercises and simulation activities will be used to replicate the high-pressure environment of an AOCC, fostering teamwork and sharpening problem-solving skills. The program emphasizes peer-to-peer learning through facilitated discussions, where professionals from diverse backgrounds can share insights and best practices. Interactive workshops will focus on developing tangible skills in areas such as A-CDM implementation, IROPS planning, and stakeholder communication. Continuous feedback from the instructor ensures that participants can refine their understanding and apply new concepts effectively. This dynamic and engaging methodology guarantees that attendees leave with not just knowledge, but also the confidence to implement advanced operational strategies in their respective roles.

Course Agenda (Course Units):

Unit One: Foundations of the Integrated Airport Operations Control Center

- The Evolution and Strategic Importance of the AOCC.
- Core Functions and Responsibilities of a Modern AOCC.
- Understanding the Airport Ecosystem and Key Stakeholders.
- The Regulatory Framework Governing Airport Operations.
- Principles of Airside, Terminal, and Landside Management.
- Introduction to Airport Master Planning and Capacity Management.
- Key Performance Indicators (KPIs) for Airport Operations.

Unit Two: Collaborative Decision Making (A-CDM) and Core Processes

- Fundamentals of Airport Collaborative Decision Making (A-CDM).
- The Milestones and Information Sharing in A-CDM.
- Integrating Airlines, Ground Handlers, and ATC into the AOCC.
- Turnaround Management and Process Optimization.
- Flight Information Management and Data Exchange.
- Seasonal and Daily Operational Planning Procedures.
- Resource Allocation and Stand/Gate Management Strategies.

Unit Three: AOCC Systems, Technology, and Information Management

- Overview of Key AOCC Technologies (AODB, FIDS, RMS).
- The Role of the Airport Operations Database (AODB).
- Integrating Systems for a Common Situational Awareness Picture.
- Data Analytics and Business Intelligence in Airport Operations.
- Cybersecurity Considerations for AOCC Systems.
- Future Trends in Airport Technology and Automation.
- Leveraging Mobile Technology for Operational Staff.

Unit Four: Managing Irregular Operations (IROPS) and Crisis Response

- Defining and Categorizing Irregular Operations (IROPS).
- Proactive IROPS Planning and Contingency Measures.
- AOCC's Role During Weather Disruptions, Technical Failures, and Security Incidents.
- Airport Emergency Response Plan (AERP) Activation and Coordination.
- Crisis Communication Strategies for Passengers and Stakeholders.
- Business Continuity and Service Recovery Post-Disruption.
- Case Studies of Effective IROPS and Crisis Management.

Unit Five: Performance, Safety, and the Future of Airport Operations

- Implementing and Managing a Safety Management System (SMS) in the AOCC.
- Human Factors and Crew Resource Management in the Control Center.
- Conducting Operational Audits and Quality Assurance.
- Strategies for Enhancing Passenger Experience through Operations.
- Sustainable Airport Operations and Environmental Considerations.
- The Future AOCC: Predictive Analytics, AI, and Machine Learning.
- Developing a Culture of Continuous Improvement and Operational Excellence.

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:

How can AOCCs leverage predictive analytics and artificial intelligence to transition from a reactive to a proactive operational management model, and what are the primary barriers to this evolution?

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

This course distinguishes itself through its holistic and integrative approach to airport operations, moving beyond siloed functions to present the AOCC as the central hub of a complex, interconnected ecosystem. Unlike programs that focus narrowly on a single aspect like air traffic or ground handling, this curriculum is built around the core philosophy of Airport Collaborative Decision Making (A-CDM), treating it not as a module, but as the foundational principle that underpins all modern airport management. The content places a significant emphasis on practical, real-world application, dedicating substantial time to IROPS and crisis management simulations that challenge participants to apply theoretical knowledge under pressure. Furthermore, the course is distinctly forward-looking, exploring the integration of emerging technologies such as artificial intelligence and predictive analytics into the AOCC framework. It addresses the human element in depth, covering crucial topics like human factors and safety management systems (SMS) within the operational context. This blend of strategic oversight, practical crisis management, technological foresight, and a deep understanding of collaborative frameworks provides participants with a uniquely comprehensive and actionable skill set for leading in the dynamic aviation industry.