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Advanced Aviation Safety Management System Training Course

22 August – 2 September 2027
Cairo

Advanced Aviation Safety Management System Training Course

Ref: 165_4706 **Date:** 22 August – 2 September 2027 **Location:** Cairo **Fees:** 6500 GBP

Aviation Safety Management System is a 2-week training course for safety, quality and accountable managers and safety officers at airlines, airports and maintenance organisations, who leave with a hazard log and safety performance monitoring plan for their organisation. Traffic growth, new aircraft types and leaner ground and maintenance operations are adding hazards faster than inspections alone can catch them, so a working SMS has become the main defence. The course is delivered by Jupiter Prime Training.

Why Aviation Safety Management System Matters Now

Three groups shape aviation safety management today. Aviation authorities expect operators to show a functioning system, not a manual on a shelf, with evidence that hazards are found, assessed and tracked to closure. Boards and accountable managers want safety data they can read alongside punctuality and cost. Front-line pilots, engineers and ground staff will report only when they trust how reports are used. An organisation that runs its SMS well spots drift before an accident and spends safety budgets where risk is highest; one that does not collects reports it never acts on. The course rests on ICAO Annex 19 Safety Management and its four SMS components: policy, risk management, assurance and promotion.

Who Gains Most from Aviation Safety Management System

- Safety leads who maintain the hazard log and run safety review boards
- Quality and compliance leads who audit procedures and track findings
- Accountable executives who sign off safety risk acceptance and resources
- Safety officers who investigate occurrences and analyse report trends
- Department heads in flight operations, engineering and ground services who own operational hazards

An operator gains most when its safety, quality and departmental leads attend together and agree one method for rating, accepting and monitoring hazards.

Aviation Safety Management System Capabilities

Participants practise moving from a single occurrence report to a hazard, a risk decision and an indicator that shows whether the defence is working.

- Assess hazards using a severity and likelihood matrix with clear acceptance criteria — safety review board
- Design safety performance indicators and targets with alert levels — accountable executive
- Apply root cause methods to occurrences in flight, maintenance and ground operations — investigation leads
- Build a management of change assessment for new routes, aircraft or contractors — department heads

- Weigh audit, survey and data findings in safety assurance reviews — quality leads
- Communicate safety lessons in ways that strengthen reporting culture — front-line staff

Key Aviation Safety Management System Terms

- Safety management system SMS — an organised approach to managing safety, covering policy, risk management, assurance and promotion.
- Hazard — a condition or object that could cause or contribute to an aircraft incident or accident.
- Safety risk — the predicted likelihood and severity of the consequences of a hazard.
- Safety performance indicator SPI — a data-based measure used to monitor how well safety risks are controlled.
- Just culture — an environment where staff report errors without fear of blame, while reckless conduct remains unacceptable.
- Accountable executive — the person with final responsibility and authority for the operator's safety performance and resources.

Aviation Safety Management System Day by Day

Day 1: Safety Management in a Changing Industry

- ICAO Annex 19 Structure — Expectations Placed on Operators and Airports
- Evolution From Compliance to Performance-Based Safety — Oversight Shifts
- Accident Causation Models — Swiss Cheese and Systems Thinking
- Industry Risk Trends — Runway Excursions, Ground Damage and Fatigue
- SMS Gap Analysis — Current Maturity Versus Target State

Day 2: Safety Policy and Accountabilities

- Safety Policy Statement — Leadership Commitments Visible to Staff
- Accountable Executive Responsibilities — Resource and Risk Acceptance Decisions
- Safety Review Board and Action Group — Terms of Reference
- Emergency Response Plan Coordination — Links With Airports and Partners
- SMS Documentation Set — Manual, Procedures and Records

Day 3: Hazard Identification

- Mandatory and Voluntary Reporting Schemes — Report Flow and Confidentiality
- Flight Data Monitoring Inputs — Exceedances as Hazard Signals
- Line Operations Safety Observations — Normal Operations as a Source
- Hazard Taxonomy — Consistent Coding Across Departments
- Hazard Log Structure — Ownership, Status and Links to Controls

Day 4: Safety Risk Assessment

- Severity and Likelihood Matrix — Tolerability Regions and Acceptance
- Bow-Tie Modelling — Threats, Barriers and Recovery Measures
- Risk Mitigation Hierarchy — Elimination, Engineering and Procedures
- Residual Risk Acceptance — Who Signs and When
- Risk Assessment Quality Checks — Avoiding Optimism Bias

Day 5: Occurrence Investigation

- Investigation Triggers and Scoping — Proportionate Effort per Event
- Human Factors Analysis and Classification — Errors Behind the Error
- Interview Techniques — Pilots, Engineers and Ground Staff
- Root Cause and Contributing Factor Analysis — Corrective Action Selection
- Investigation Report Writing — Findings That Change Practice

Day 6: Safety Performance Monitoring

- Leading and Lagging Indicators — Balance Between Outcomes and Precursors
- SPI Targets and Alert Levels — Statistical Triggers for Action
- Safety Dashboards for Boards — Presenting Trends Without Noise
- Data Sharing With Partners — Handlers, Airports and Maintenance Providers
- Safety Performance Reviews — Linking Indicators to Hazard Log Entries

Day 7: Safety Assurance and Management of Change

- Internal Safety Audits — Sampling Processes Against Procedures
- Management of Change Assessments — New Routes, Fleets and Contractors
- Contractor and Supplier Oversight — Safety Clauses and Monitoring
- Continuous Improvement Cycle — Closing Actions and Verifying Effect
- Integration With Quality Systems — One Finding, One Owner

Day 8: Safety Promotion and Culture

- Just Culture Policy — Boundaries Between Error and Recklessness
- Safety Culture Surveys — Measuring Trust in Reporting
- Safety Communication Channels — Bulletins, Briefings and Lessons Learned
- SMS Training Needs — Role-Based Safety Competencies
- Fatigue Risk Management Interfaces — Rostering and Duty Decisions

Day 9: Sector Applications

- Airline Flight Operations Hazards — Unstable Approaches and Turbulence
- Maintenance Organisation Hazards — Task Interruptions and Tool Control
- Airport and Apron Hazards — Wildlife, Debris and Vehicle Movements
- Ground Handling Hazards — Loading Errors and Equipment Damage
- Interface Hazards Between Organisations — Shared Risk Ownership

Day 10: Practising the Hazard Log and Safety Performance Monitoring Plan

- Hazard Identification Exercise — Applying Reporting and Flight Data Inputs
- Bow-Tie Risk Assessment Exercise — Applying Severity and Likelihood Criteria
- Investigation Case Study — Applying Human Factors Classification
- Indicator Set Design — Applying Targets and Alert Levels
- Hazard Log and Safety Performance Monitoring Plan — Owners and Review Cycle

Applying Aviation Safety Management System After the Course

- Review the top ten entries in the hazard log with their owners and re-rate each against the severity and likelihood matrix.
- Propose two leading safety performance indicators with alert levels to the next safety review board.

Aviation Safety Management System Questions FAQ

What is an aviation safety management system, and why does it matter now?

An aviation safety management system is the organised way an airline, airport or maintenance organisation finds hazards, manages risk and checks that defences work. It matters now because growth, new fleets and leaner operations add hazards faster than inspections alone can catch them.

Which roles gain most from aviation safety management system training?

Safety and quality managers gain most, followed by accountable executives, safety officers and department heads. If you rate hazards, accept risk or report safety performance to a board, you gain one consistent method shared across departments.

How does aviation safety management system training differ from an occupational health and safety course?

It focuses on aircraft operational risk rather than workplace injury. An occupational safety course covers worker protection and site hazards; this course covers flight, maintenance and airport hazards, safety performance indicators and the four SMS components.

What do you bring back from aviation safety management system training?

You bring back a structured hazard log with owners and risk ratings, plus a set of safety performance indicators with targets and alert levels. Together they give your safety review board a working basis for decisions.

Aviation Safety Management System: The Way Forward

The hazard log and safety performance monitoring plan first informs which risks the safety review board accepts, mitigates or escalates. Safety managers, accountable executives and department heads use it at each review. After the first quarter of monitoring, revisit the indicator targets and alert levels to see whether they trigger action early enough.