



## Chapter 06: Safety and Compliance

# 15. Safety Management System Implementation

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Implement and maintain Safety Management System to systematically manage safety risks and promote safety culture.

## Roles and Responsibilities

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### Operations Leader:

- Oversee daily operations and coordinate between departments
- Authorize emergency response procedures and resource allocation
- Monitor safety compliance and operational excellence
- Coordinate scheduling across departments for operational coverage
- Review billing disputes and approve service adjustments
- Ensure regulatory compliance across all operations

## Process Steps

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### SMS Policy and Planning Phase

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- **Develop safety policy** - Create comprehensive safety policy statement demonstrating leadership commitment to safety
- **Establish safety objectives** - Define specific, measurable safety objectives and performance targets
- **Assign safety responsibilities** - Clearly define safety roles and responsibilities for all organizational levels
- **Allocate resources** - Ensure adequate resources are available for SMS implementation and maintenance
- **Create SMS documentation** - Develop SMS manual documenting policies, procedures, and organizational structure
- **Communicate SMS commitment** - Share safety policy and SMS commitment with all personnel and stakeholders

### Hazard Identification Phase

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- **Establish reporting systems** - Implement confidential safety reporting systems for hazard identification

- **Conduct safety assessments** - Perform systematic assessments to identify potential hazards in operations
- **Review operational data** - Analyze operational data, incident reports, and audit findings for hazard identification
- **Engage personnel** - Encourage all personnel to actively participate in hazard identification activities
- **Monitor external sources** - Review industry safety bulletins and regulatory guidance for relevant hazards
- **Document identified hazards** - Maintain comprehensive database of identified hazards and their characteristics

## Risk Assessment Phase

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- **Assess hazard severity** - Evaluate potential consequences of identified hazards on personnel, aircraft, and operations
- **Determine hazard probability** - Assess likelihood of hazard occurrence based on operational factors and historical data
- **Calculate risk levels** - Use risk assessment matrix to determine overall risk levels for identified hazards
- **Prioritize risks** - Rank risks by severity and probability to prioritize risk mitigation efforts
- **Document risk assessments** - Maintain detailed records of risk assessment processes and results
- **Review assessments regularly** - Periodically review and update risk assessments based on operational changes

## Risk Mitigation Phase

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- **Develop mitigation strategies** - Create specific strategies to eliminate or reduce identified safety risks
- **Implement control measures** - Execute risk mitigation measures including procedural, training, and engineering controls
- **Monitor mitigation effectiveness** - Track effectiveness of implemented risk mitigation measures
- **Adjust strategies** - Modify risk mitigation strategies based on effectiveness monitoring and changing conditions
- **Document mitigation actions** - Maintain records of all risk mitigation activities and their outcomes
- **Communicate changes** - Inform all affected personnel of risk mitigation measures and procedural changes

## Safety Performance Monitoring Phase

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- **Establish safety indicators** - Define leading and lagging safety performance indicators for monitoring
- **Collect safety data** - Systematically collect and analyze safety performance data from operations
- **Track safety trends** - Monitor safety performance trends and identify areas of concern or improvement

- **Compare to targets** - Evaluate actual safety performance against established safety objectives and targets
- **Generate safety reports** - Produce regular safety performance reports for leadership and stakeholders
- **Identify improvement opportunities** - Use performance data to identify areas for safety system improvements

## Continuous Improvement Phase

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- **Conduct management reviews** - Perform regular management reviews of SMS effectiveness and performance
- **Implement improvements** - Execute SMS improvements based on performance data and review findings
- **Update SMS documentation** - Revise SMS procedures and documentation based on operational experience
- **Enhance safety culture** - Develop initiatives to strengthen positive safety culture and employee engagement
- **Share lessons learned** - Communicate safety lessons learned with industry peers and stakeholders
- **Benchmark best practices** - Compare SMS practices with industry standards and adopt proven improvements

## Tools and Resources

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### SMS Documentation:

- Safety Management System manual and procedures
- Safety policy statements and organizational charts
- Hazard identification and risk assessment forms
- Safety performance monitoring and reporting systems

### Risk Assessment Tools:

- Risk assessment matrices and evaluation criteria
- Hazard identification checklists and databases
- Risk mitigation tracking and monitoring systems
- Safety performance indicator dashboards

### Communication Systems:

- Confidential safety reporting systems
- Safety meeting and communication protocols

- Safety training and awareness materials
- Safety culture assessment and improvement tools

## Common Issues and Solutions

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- **Issue:** Resistance to SMS implementation due to perceived bureaucracy
- **Solution:** Emphasize practical benefits of SMS; involve personnel in development process; start with simple, effective procedures

**Issue:** Difficulty maintaining SMS momentum and continuous improvement

**Solution:** Establish regular review cycles; celebrate safety improvements; link SMS to operational performance

**Issue:** Limited resources for comprehensive SMS implementation

**Solution:** Implement SMS in phases; focus on high-risk areas first; leverage existing safety programs and procedures

## Regulatory References

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- **FAA Advisory Circular AC 150/5200-37** - Introduction to Safety Management Systems for Airport Operators
- **14 CFR Part 139.301** - Records management requirements
- **ICAO Annex 19** - Safety Management international standards
- **FAA Order 8000.369** - Safety Management System for Aviation Service Providers
- **Industry SMS Guidelines** - Aviation industry SMS implementation best practices
- **ISO 45001** - Occupational health and safety management systems standards