



SMS INDUSTRY WORKSHOP

From Insight to Action: Advancing Aviation
Safety with SMS & RBO



SAFETY CULTURE VALUES



Enhancing Safety Management Systems for Risk-Based Oversight



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Improving Your Safety Management System (SMS) for Risk-Based Oversight (RBO)

Let's explore how aviation entities can strengthen their **Safety Management Systems (SMS)** to effectively align with, and be fully prepared for, a **Risk-Based Oversight (RBO)** approach

Introduction to Risk-Based Oversight



Understanding Risk-Based Oversight



Proactive Risk Identification

RBO focuses on identifying and mitigating risks before incidents occur, using continuous safety data monitoring and analysis.

Global Adoption

Aviation authorities worldwide are increasingly adopting RBO to enhance the effectiveness of safety management and regulatory oversight.

Efficient Resource Allocation

By prioritizing high-risk areas, RBO enables more strategic allocation of regulatory and operational resources.

Enhanced Safety Culture

Integrating RBO encourages a proactive and dynamic safety culture, improving compliance and resilience against emerging threats.

Understanding the Shift: From Prescriptive to Risk-Based

Traditional Oversight (Prescriptive)

Focus: Ensures compliance with specific rules and regulations, often following a “check-the-box” approach.

Oversight Approach: Conducts routine inspections and audits at fixed intervals, applied uniformly across all organizations regardless of risk profile.

Understanding the Shift: From Prescriptive to Risk-Based

Risk-Based Oversight (RBO)

Focus: Emphasizes safety performance and proactive management of safety risks. Regulators assess the maturity and effectiveness of an organization's Safety Management System (SMS).

Oversight Approach: Prioritises oversight activities based on the organization's unique safety risk profile and performance indicators. Mature, low-risk organizations may receive less frequent but more in-depth oversight, while higher-risk areas are given focused attention.

Prerequisite: The service provider must have a robust, mature, and data-driven Safety Management System (SMS) in place.

Goal: Preparation for RBO means transforming your SMS from a documentation exercise into a living, performance-driven system.

Risk-Based Oversight Alignment

Importance of Preparing SMS for RBO



Enhanced Risk Management: Aligning your SMS with RBO strengthens hazard identification, risk assessment, and informed decision-making to improve aviation safety.

Regulatory Compliance and Communication: An RBO-aligned SMS enables clear and transparent communication with regulators, demonstrating a strong commitment to safety and continuous improvement.

Cultural Preparation: Preparing your SMS for RBO requires fostering a proactive safety culture that encourages vigilance, accountability, and proactive risk management throughout the organisation.

Challenges and Objectives



Current Challenges in SMS Implementation



Reactive Safety Culture



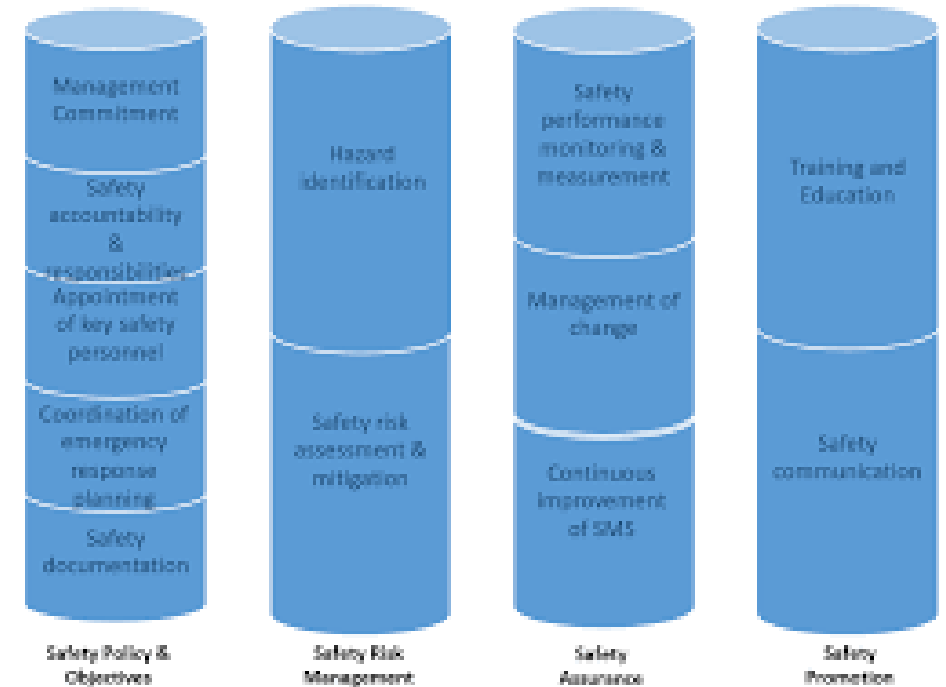
Inconsistent Hazard Reporting: Hazard identification and reporting are sporadic, creating gaps in safety data and missed opportunities for risk reduction.

Limited Data Integration: Safety data from flight operations, maintenance, and air traffic control are poorly integrated, limiting comprehensive analysis.

Weak Safety Assurance: The absence of robust safety assurance and performance monitoring tools makes it difficult to evaluate the effectiveness of safety interventions.

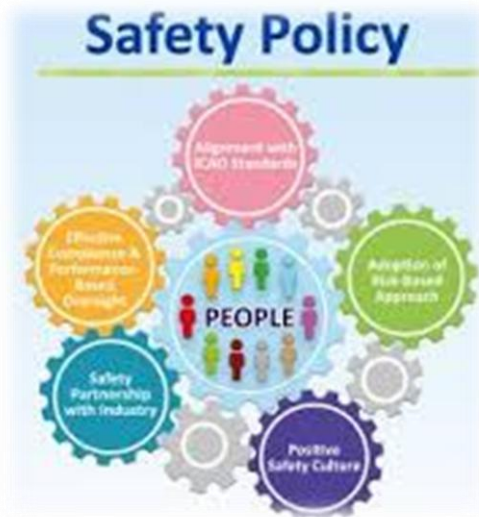
Strategic Improvements

SMS Enhancement Pillars for RBO Readiness



Safety Policy & Objectives

RBO relies heavily on the four components of a mature SMS. We must strengthen each.



Improvement Area	Action for RBO Readiness
Safety Leadership	Ensure the Accountable Executive is visibly and actively engaged, allocating sufficient resources (human and financial) to the SMS.
Safety Objectives	Set measurable safety goals (e.g., reduce specific incident types by X%) that are linked to the organization's high-risk areas identified through data.
Accountability	Clearly define and communicate safety accountabilities for every level of staff, ensuring management understands their role in risk control effectiveness.

Safety Risk Management (SRM)



Improvement Area	Action for RBO Readiness
Hazard Identification	Move from reactive (after an event) to proactive and predictive methods (e.g., Flight Data Monitoring (FDM), Line Operations Safety Audits (LOSA), regular safety culture surveys).
Risk Assessment	Develop a systematic, documented process for risk analysis, assessment, and control. Ensure your risk matrix is understood and consistently applied across all departments.
Risk Control	Implement robust safety risk controls that are designed to be measurable. Regularly verify the effectiveness of controls, particularly for high-risk operations.

Safety Assurance

The Cornerstone of RBO: Data and Safety Assurance

A shift to RBO is
fundamentally a shift to
**data-driven safety
management.**

Safety Data Collection and Processing

Implement modern, user-friendly safety reporting systems that enable all staff to report hazards, incidents, and near-misses freely, fostering a **non-punitive safety culture.**

Integrate multiple data sources — including voluntary reports, FDM data, maintenance records, and operational audits — into a unified, accessible database to support comprehensive analysis.

Safety Performance Monitoring and Measurement

Develop and track **Safety Performance Indicators (SPIs)** and **Safety Performance Targets (SPTs)** that align with your operational risk profile. Leverage data analysis tools to **identify emerging trends and latent failures proactively**, enabling preventative actions before incidents escalate.

Safety Assurance (continued)

SAFETY ASSURANCE

Safety Assurance Techniques



Continuous Improvement:

Implement a formal **Management of Change (MOC)** process to evaluate the safety implications of any organizational, procedural, or equipment changes before they are put into practice.

Ensure that all safety findings — from audits, investigations, or reports — result in **timely, documented corrective and preventive actions** with clearly assigned accountability and follow-up to verify their effectiveness.

Safety Promotion

The Human Element: Safety Promotion

RBO assesses not just the *system*, but the **culture** that supports it. A poor safety culture is a high-risk factor for any regulator.

Improvement Area	Action for RBO Readiness
Training & Education	Ensure training programs are risk-focused , covering hazard identification, risk assessment, and the use of the safety reporting system. Move beyond basic compliance training.
Safety Communication	Regularly share safety findings, lessons learned, and the effectiveness of risk controls across the entire organization. Emphasize a " Just Culture " where honest reporting is rewarded, not punished.
Employee Engagement	Involve frontline staff in the SMS process (e.g., safety committees, peer-to-peer audits) to tap into their operational knowledge for better hazard identification.
Competency	Verify that all personnel, especially those in safety-critical roles, have the required competence (training, skills, experience) to perform their duties safely and manage associated risks.

Shared Safety Responsibility and Culture



Fostering a Proactive Safety Culture



Shared Accountability: Foster an environment where safety is a collective responsibility, empowering employees to raise concerns openly and confidently.

Training and Workshops: Conduct regular safety training sessions and workshops to strengthen skills in hazard identification, risk assessment, and mitigation.

Non-Punitive Reporting: Implement policies that encourage reporting of hazards and near-misses without fear of reprisal, reinforcing trust and transparency.

Recognition and Engagement: Acknowledge and reward proactive safety behaviors to motivate staff and cultivate a strong, positive safety culture.

Mapping SMS to RBO Criteria

SMS Alignment with RBO Principles: Ensure all SMS components are aligned with RBO requirements to meet regulatory expectations effectively.

Collaboration with the CAA: Maintain open communication with regulators to understand their expectations and receive feedback on SMS performance for continuous improvement.

Internal Audits and Gap Analysis: Apply RBO principles during internal audits to identify gaps, enhance SMS processes, and strengthen compliance.

Documentation and Transparency: Clearly document all SMS processes, safety findings, and corrective actions to support transparency and facilitate regulatory oversight.

Aligning SMS with RBO Requirements



SUMMARY

Summary and Conclusion

Strategic Importance of SMS

Enhancing Safety Management Systems is essential for preparing aviation companies for Risk-Based Oversight and improving safety standards.

Key Improvement Areas

Focus on hazard identification, data management, safety culture, and regulatory alignment to strengthen Safety Management Systems.

Commitment and Collaboration

Success depends on organization-wide commitment, adaptability, and collaboration across all levels to ensure continuous safety improvement.

Ongoing Safety Journey

Safety is a continuous journey demanding vigilance and proactive improvements to meet regulatory expectations and build excellence.

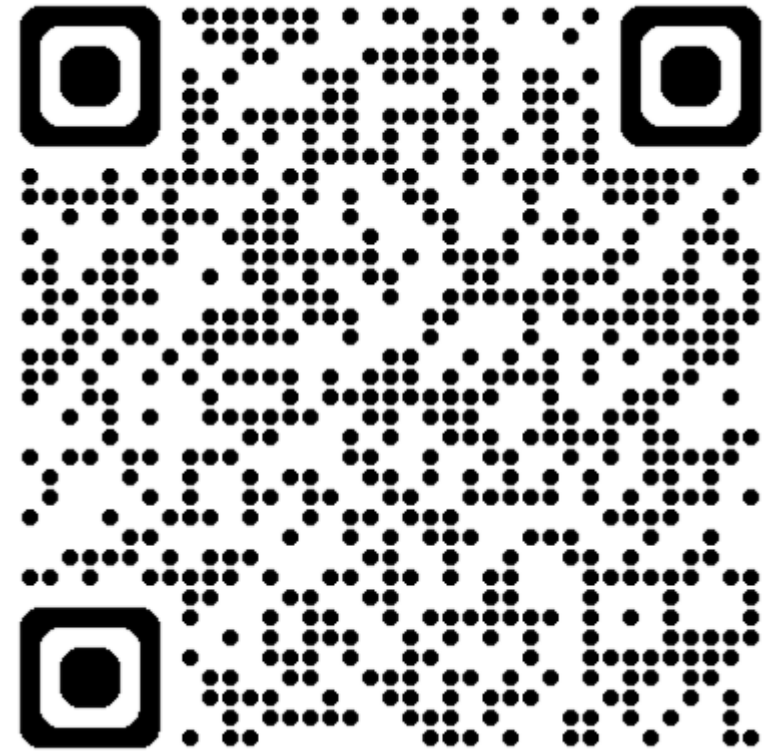
Let's connect!

Join the SACAA in entrenching a positive safety culture

Safety culture resource page (QR Code)

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#SACAASafetyCulture



Advocating for
Aviation Safety Culture

"Fly responsibly. Fly safely. Your Actions Impact Lives."

THANK YOU

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