

ENHANCING SAFETY MANAGEMENT SYSTEM EFFECTIVENESS IN THE AIRLINE INDUSTRY THROUGH RISK-BASED IOSA IN SUPPORT OF AP-RASP GOAL 6

SUMMARY

This paper provides a regional perspective on how Risk-Based IOSA, through its SMS Maturity Assessment, contributes to strengthening Safety Management Systems (SMS) within the airline industry in the Asia Pacific region. It highlights IATA's intention to enhance collaboration with States through the exchange of safety information and safety intelligence derived from IOSA, in support of AP-RASP 2026-2028 Goal 6 and aligned with ICAO Doc 10159.

1.1. Effective Safety Management Systems (SMS) within the airline industry remain fundamental to sustaining strong safety performance across the Asia Pacific region.

1.2. Risk-Based IOSA represents an evolution towards a risk-based and performance-oriented evaluation of SMS effectiveness, moving beyond compliance.

1.3. A key component is the SMS Maturity Assessment, which provides insight into how safety management processes function in practice and support operational decision-making.

1.4. This approach aligns with AP-RASP 2026-2028 Goal 6, which encourages the use of industry evaluation programmes and safety information sharing.

2.1. Risk-Based IOSA and SMS Maturity

2.1.2 Risk-Based IOSA provides a structured and standardised assessment of airline SMS effectiveness, focusing on maturity rather than conformity. The SMS Maturity Assessment provides insight into strengths and areas for improvement, evaluates implementation effectiveness, and enables the development of targeted actions for continuous improvement. At a regional level, aggregated outputs provide a broader view of SMS maturity across operators and enable shared learning, supporting more proactive and data-informed safety management practices.

2.2. Contribution to AP-RASP Goal 6

2.2.1 AP-RASP Goal 6 promotes participation in industry evaluation programmes and enhanced sharing of safety information. Risk-Based IOSA supports these objectives by providing a globally recognised evaluation framework, generating structured SMS maturity insights, and enabling the aggregation of safety information at regional level, thereby contributing to a more coordinated and consistent approach to SMS improvement across the region.

2.3. Collaboration and Exchange with States

2.3.1 Building on these outputs, IATA recognises the importance of strengthening collaboration with States through the exchange of safety information and safety intelligence. IATA seeks to enhance the exchange of aggregated and de-identified IOSA-derived insights with States, where appropriate, to complement State data, support regional safety intelligence development, and promote alignment between airline SMS practices and State priorities.

2.4. Alignment with ICAO Doc 10159

2.4.1 ICAO Doc 10159 (Safety Intelligence Manual) highlights that the sharing and exchange of safety information and safety intelligence are key enablers of effective safety management. In particular, Chapter 8 emphasises that collaboration in information exchange supports system-level understanding and more data-driven decision-making. The IOSA information exchange approach is consistent with these principles while recognising the importance of data protection and trust.

3. ACTION BY THE MEETING

3.1. The meeting is invited to:

- a) Note the role of Risk-Based IOSA SMS Maturity Assessment in enhancing airline SMS effectiveness in the Asia Pacific region;
- b) Encourage participation in industry evaluation programmes, including Risk-Based IOSA, in support of AP-RASP Goal 6;
- c) Support enhanced collaboration between IATA and States through the exchange of aggregated safety information and safety intelligence derived from IOSA; and
- d) Promote the use of such insights to strengthen Safety Management Systems within the airline industry.

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