



International Civil Aviation Organization

**MIDANPIRG/23 & RASG-MID/13 Meetings**

*(Cairo, Egypt, 14 – 18 June 2026)*

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**Agenda Item 4.3: Other Emerging Safety Matters**

**PROMOTING SAFETY CULTURE AS A TOOL FOR SUSTAINABLE AVIATION SECTOR  
GROWTH: OUTCOMES OF THE NATIONAL AVIATION SAFETY SEMINAR IN THE  
KINGDOM OF SAUDI ARABIA**

*(Presented by Saudi Arabia/General Authority of Civil Aviation)*

**SUMMARY**

This paper presents information on the National Aviation Safety Seminar conducted in the Kingdom of Saudi Arabia in late 2025 under the theme “Safety Culture: A Tool for Sustainable Sector Growth”.

The paper shares Saudi Arabia’s experience in using a national safety promotion initiative to support safety culture, Just Culture, State Safety Programme (SSP) implementation, State Safety Risk Management, safety data and intelligence led learning, systems thinking, holistic aviation risk management, fatigue management, human error learning, integrated safety approaches and general aviation risk management.

The paper also identifies regional opportunities for States, service providers and stakeholders to exchange good practices related to safety culture promotion, Just Culture, safety reporting, fatigue risk management and safety intelligence.

Action by the meeting is at paragraph 4.

**REFERENCE**

- ICAO ANNEX 19 — SAFETY MANAGEMENT.
- ICAO SAFETY MANAGEMENT MANUAL (DOC 9859).
- ICAO SAFETY INTELLIGENCE MANUAL (DOC 10159).
- GACAR PART 5 — SAFETY MANAGEMENT SYSTEMS.
- GACA E-BOOK VOL. 2 — SAFETY MANAGEMENT SYSTEMS.
- KINGDOM OF SAUDI ARABIA STATE SAFETY PROGRAM
- KINGDOM OF SAUDI ARABIA NATIONAL AVIATION SAFETY PLAN 2025-2027

## **1. INTRODUCTION**

1.1 Safety culture is an important enabler of effective safety management. In the context of State safety management, it supports the implementation of the SSP, the effectiveness of service provider SMSs, and the availability of safety data and safety information needed for risk-based and performance-based decision making.

1.2 The Kingdom of Saudi Arabia, through the General Authority of Civil Aviation (GACA), conducted the National Aviation Safety Seminar in late 2025 under the theme “Safety Culture: A Tool for Sustainable Sector Growth”. The seminar was organized as a State safety promotion activity to strengthen common understanding of safety culture and to promote collaboration between the regulator, industry, service providers, the accident investigation authority and aviation safety experts.

1.3 The seminar agenda addressed safety culture, Just Culture, SSP implementation, State Safety Risk Management, safety intelligence, learning from investigations and normal operations, systems thinking, holistic aviation risk management, fatigue management, human error in air traffic control (ATC) operations, integrated safety approaches and general aviation (GA) risk management.

1.4 This paper is submitted as an Information Paper to share the experience and lessons from the seminar with RASG members. The paper does not propose new regional requirements; it identifies seminar outcomes and possible regional opportunities for cooperation and exchange of practices.

## **2. DISCUSSION**

### **2.1 Background and Purpose of the Seminar**

2.1.1 The National Aviation Safety Seminar was conducted to reinforce safety culture as a practical enabler of sustainable growth in the aviation sector. The seminar supported national safety promotion by creating a forum for dialogue on reporting, learning, accountability, risk management and collaboration across the aviation system.

2.1.2 The seminar also supported the implementation of the KSA SSP and NASP by linking safety culture to State Safety Risk Management processes. The seminar material described a national SRM process involving GACA, SSP Working Groups, industry stakeholders and the National Aviation Safety Committee (NASC), moving from hazard and safety risk identification through analysis, assessment, action planning, implementation, effectiveness review and reassessment.

2.1.3 The seminar material further highlighted the use of national safety risk and hazard registers, and the use of structured risk visualization methods, such as Bowtie analysis, to support national risk understanding and mitigation planning. This provided a practical linkage between safety promotion, safety data, safety risk management and NASP implementation.

### **2.2 Seminar Scope and Key Topics**

2.2.1 The seminar scope covered both strategic and operational safety themes. Day 1 included opening remarks by GACA, a session on the importance of safety culture, a Just Culture panel, an accident investigation learning session, and a panel on perspectives on risk management.

2.2.2 The safety culture session emphasized leadership commitment, shared values, the need to move beyond procedures and compliance, and the importance of a reporting environment supported by confidentiality, protection and clearly understood disciplinary policies.

2.2.3 The Just Culture panel addressed how Just Culture can be preserved and propagated across organizations, and how leadership commitment and reporting systems can work together to manage risk. The accident investigation session addressed systems thinking, Just Culture and intelligence-led, data-driven learning.

2.2.4 Day 2 included sessions and panels on holistic aviation risk management, integrated safety across aviation organizations, fatigue management in maintenance organizations, managing fatigue and human error in ATC operations, and the complexities of risk management in GA operations.

2.2.5 The holistic aviation risk management session emphasized “risk before insurance”, the identification, assessment and mitigation of risks, the integration of safety, operations, maintenance, business resilience and enterprise risk management, and continuous monitoring and improvement. The integrated safety panel brought together stakeholders from GACA, airports, logistics and air navigation services to discuss interfaces and synergies.

2.2.6 The fatigue management session addressed fatigue as a measurable physiological impairment affecting judgement, attention, reaction time and memory. It also presented fatigue as an underreported and system-level aviation risk, particularly in maintenance environments exposed to long duty periods, night shifts, unplanned work, turnaround pressure, high temperatures, low-light conditions and complex procedures.

2.2.7 The ATC session addressed human error through the lens of systems thinking, including different perspectives on human error and the need to understand people as part of complex socio-technical systems. The GA panel provided a platform to discuss the specific complexities of risk management in GA operations.

## 2.3 Key Messages and Lessons Learned

2.3.1 Safety culture should go beyond compliance. A positive safety culture requires leadership commitment, shared understanding of risks, openness to reporting, active learning and visible support for safety as part of daily decision making.

2.3.2 Just Culture supports both learning and accountability. The seminar reinforced that trust, fair treatment and clarity on acceptable and unacceptable behavior are necessary to support reporting and learning, while preserving appropriate accountability.

2.3.3 Safety intelligence requires trust, data sharing and collaboration. Intelligence-led learning depends on reliable safety data, effective reporting mechanisms, analysis, feedback, and the confidence of stakeholders that data and information will be used for safety purposes.

2.3.4 Fatigue should be managed as a system-level safety risk. Fatigue in maintenance environments is influenced by rostering, workload, environmental conditions, reporting culture, supervision, training and data-driven monitoring; it should therefore be managed through structured controls rather than as an individual performance issue only.

2.3.5 Human errors should be understood through systems thinking. The ATC session supported a shift from blame-oriented interpretations of human error towards understanding the operational context, interfaces, constraints and system conditions that shape human performance.

2.3.6 Aviation safety requires integration across the total aviation system. The seminar highlighted that risks often cut across organizational boundaries, including operations, maintenance, air navigation services, airports, regulators, logistics providers and industry stakeholders. Effective risk management therefore requires collaboration across interfaces.

## 2.4 Alignment with ICAO Safety Management Framework

2.4.1 The seminar outcomes are aligned with ICAO safety management principles by promoting a positive safety culture, strengthening safety reporting, supporting State Safety Risk Management, encouraging safety data analysis, and promoting the sharing and exchange of safety information and safety intelligence.

2.4.2 The seminar also supports GASP-aligned regional priorities by providing a practical example of how a State may use safety promotion activities to reinforce SSP implementation, NASP priorities, safety data use, collaboration and continuous improvement.

## 2.5 Regional Relevance and Opportunities for RASG Members

2.5.1 The seminar experience may be relevant to RASG members because safety culture, reporting confidence, fatigue, human performance, data sharing and cross-organizational risk management are common safety management challenges across aviation systems.

2.5.2 RASG members may consider exchanging approaches for safety culture promotion, including national seminars, safety culture workshops, Just Culture dialogue, cross-industry learning sessions and targeted safety promotion campaigns linked to SSP and NASP priorities.

2.5.3 The seminar further indicates potential value in regional exchange on fatigue risk management awareness for maintenance and other operational domains, systems thinking in the management of human performance, and integrated risk management across operators, airports, ANSPs, maintenance organizations, logistics providers and regulators.

## 3. CONCLUSION

3.1 The National Aviation Safety Seminar provided a practical State safety promotion platform to advance safety culture as an enabler of sustainable sector growth. It supported dialogue across the aviation system on Just Culture, safety reporting, State Safety Risk Management, safety intelligence, systems thinking, fatigue management, human performance and integrated aviation risk management.

3.2 The Kingdom of Saudi Arabia remains committed to strengthening safety culture through the KSA SSP and NASP, promoting collaboration across the aviation community, and supporting regional exchange of experience through the RASG mechanism.

## 4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) encourage States and stakeholders to consider similar safety culture promotion initiatives in support of SSP and NASP implementation;
- c) support regional exchange of good practices related to Just Culture, safety reporting, fatigue risk management and safety intelligence; and
- d) encourage continued collaboration among States, service providers, accident investigation authorities and industry stakeholders on safety culture and intelligence-led safety improvement.