



International Civil Aviation Organization

Sixth Meeting of the Aerodrome Safety, Planning & Implementation Group

(ASPIG/6) (Muscat, Oman, 27 – 29 May 2024)

Agenda Item 2: Regional Performance Framework for Aerodrome Safety

**STRENGTHENING RUNWAY SAFETY IN SULTANATE OF OMAN:
THE ESTABLISHMENT OF THE NATIONAL RUNWAY SAFETY PROGRAMME (NRSP)**

Presented by Sultanate of Oman

SUMMARY

This paper presents and outlines the formation and proposed enhancements of Oman's National Runway Safety Programme (NRSP). The NRSP integrates stakeholders across Oman's aviation industry to collaborate on national-level runway safety strategies and initiatives, marking a significant step towards mitigating runway-related incidents and aligning with international best practices.

Action by the meeting is at paragraph 3.

REFERENCE

- Global Runway Safety Action Plan
- ICAO Runway Safety Website
(<https://www.icao.int/safety/RunwaySafety/>)
- Middle East Regional Aviation Safety Plan (MID-RASP)

1. INTRODUCTION

1.1 Assembly Resolution 37-6 on Runway Safety, urges States to take measures to enhance runway safety, including the establishment of Runway Safety Programmes using a multidisciplinary approach, that includes at least civil aviation regulators, aircraft operators, air navigation service providers, aerodrome operators and aircraft manufacturers to prevent and mitigate the effects of runway excursions, runway incursions and other occurrences related to runway safety.

1.2 The First Global Runway Safety Symposium (GRSS/1) was held in ICAO Headquarters, in May 2011, with the purpose of bringing together experts from diverse professional domains to determine a multidisciplinary approach to improving runway safety outcomes. The sectors included civil aviation regulators, aircraft operators, air navigation services providers, aerodrome operators, and aircraft manufacturers. One of the main outcomes of GRSS/1 was the requirement for airports to establish collaborative runway safety teams and the establishment of the ICAO led collaborative Runway Safety Programme.

1.3 The National Runway Safety Programme (NRSP) was established to provide a structured platform for runway safety in Sultanate of Oman, involving key stakeholders from certified aerodromes, air operators, and air traffic services units. This initiative represents Oman's commitment to enhancing runway safety and operational efficiency.

2. DISCUSSION

2.1 The National Runway Safety Programme (NRSP) is a strategic initiative by Sultanate of Oman's Civil Aviation Authority to mitigate runway-related accidents, incidents, and other occurrences. It's part of a broader commitment to uphold and enhance aviation safety standards in alignment with the National Aviation Safety Plan (NASP) and the State Safety Programme (SSP).

2.2 The NRSP outlines a collaborative framework that involves various stakeholders, including airlines, airport operators, and air traffic services, to foster a culture of safety and continuous improvement in runway operations. Key components of the programme include the establishment of the NRSC, which plays a pivotal role in coordinating efforts across the aviation community, promoting best practices, and facilitating effective communication and information exchange.

2.3 The programme emphasizes the importance of technology, infrastructure design improvements, rigorous safety assessments, and training to address potential risks associated with runway operations. It aims to create a proactive safety environment through regular reviews, data analysis, and the implementation of targeted strategies to prevent runway incursions, excursions, and other runway safety related occurrences. By aligning with international standards and leveraging collective expertise, the NRSP seeks to significantly reduce runway-related safety risks and enhance the overall safety of aviation operations in Oman.

2.4 The DGCAR's Director, Directorate of Civil Aviation Regulations is the Chairman of the National Runway Safety Committee (NRSC), which includes certified aerodromes, air operators and air traffic services units. The supporting Terms of Reference are included as Appendix A to this working paper.

2.5 The NRSC focuses on enhancing runway safety in the Sultanate of Oman through state-level oversight and continuous safety performance improvements. It proposes, coordinate, and implements national strategies for runway safety improvement by leveraging feedback from forums and various sources.

2.6 The objective of the NRSC is to unite industry participants who share a mutual interest in improving runway safety, providing a cooperative platform for dialogue and action.

The NRSC's objectives include:

- a) Aligning its outputs with existing industry priorities and ICAO guidelines.
- b) Support the State Safety Programme in Sultanate of Oman.
- c) Facilitating data exchange and analysis to identify and prioritize national runway safety issues.
- d) Establishing a central hub for runway safety performance data.
- e) Empower Local Runway Safety Teams (LRSTs) and action groups at every certified aerodrome in Sultanate of Oman.
- f) Integrate the safety value of LRSTs at the national level.
- g) Enhancing understanding of operational issues from aerodromes, aircraft, and air traffic services that affect runway safety.
- h) Ensuring stakeholder participation, commitment, and strong collaboration among NRSC members.
- i) Developing and implement a Runway Safety Action Plan (RSAP).
- j) Periodically review the effectiveness of RSAP.
- k) Prepare, promote and conduct (if needed) industry runway safety training, awareness and promotional events.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) use the template as guidance material;
- c) note the Sultanate of Oman willingness, in cooperation with ICAO MID office, to work closely with the MID States to develop and improve runway safety; and
- d) encourage States to:
 - i. *adopt similar approach towards national level runway safety initiatives, support of local runway safety teams and cross-industry collaboration; and*
 - ii. *offer feedback on their specific procedures and challenges encountered.*
- e) Include and consolidate the initiative to develop a Runway Safety Programme Guidelines that would be further developed by the Sultanate of Oman with setting up December 2025 as a deadline.
- f) The Sultanate of Oman is able to provide training and support required to establish or enhance a Runway Safety Programme and Supported Tools.

APPENDIX A : NATIONAL RUNWAY SAFETY COMMITTEE (TOR)

1. Purpose

The National Runway Safety Programme (NRSP), part of the National Aviation Safety Committee (NASC), focuses on enhancing runway safety in the Sultanate of Oman through state-level oversight and continuous safety performance improvements. It proposes, coordinate, and implements national strategies for runway safety improvement by leveraging feedback from forums and various sources.

The establishment of the National Runway Safety Committee (NRSC) aims to enhance communication and coordination across the aviation industry. This effort supports the development of local aerodrome runway safety teams and provides a strategic framework at the national level. The NRSG focuses on identifying, prioritizing, and implementing runway safety initiatives grounded in data analysis and international best practices, ensuring ongoing and enhanced runway safety in Sultanate of Oman.

2. Context

Runway safety is a top global priority, with the International Civil Aviation Organisation (ICAO) advocating for continued efforts to reduce runway incidents like incursions, excursions, and confusion through its Global Aviation Safety Plan (GASP) and Global Runway Safety Action Plan (GRSAP). In Oman, runway safety is a crucial part of the State Safety Programme (SSP) and a shared focus within the aviation industry. Managing runway safety risks demands collaborative efforts from aerodrome operators, pilots/aircraft operators, air navigation service providers, and regulatory bodies.

3. Objective

ICAO through the GRSAP strongly promotes and recommends the establishment of Local Runway Safety Teams (LRST) at aerodromes as an effective means to reduce runway related accidents and incidents. The NRSC performs a national advisory and coordination role to promote the establishment and effectiveness of LRSTs and utilise intelligence from these forums and other sources to develop and implement national strategies to improve runway safety. It brings together industry stakeholders that have a common goal in enhancing runway safety in a collaborative forum.

The NRSC's objectives include:

- Aligning its outputs with existing industry priorities and ICAO guidelines.
- Support the Omani State Safety Programme.
- Facilitating data exchange and analysis to identify and prioritize national runway safety issues.
- Establishing a central hub for runway safety performance data.
- Empower Local Runway Safety Teams and action groups at every certified aerodrome in Oman.
- Integrate the safety value of LRSTs at the national level.
- Enhancing understanding of operational issues from aerodromes, aircraft, and air traffic services that affect runway safety.

- Ensuring stakeholder participation, commitment, and strong collaboration among NRSC members.
- Developing and implement a Runway Safety Action Plan (RSAP).
- Periodically review the effectiveness of RSAP.
- Prepare, promote and conduct (if needed) industry runway safety training, awareness and promotional events.

4. Scope

- *Evaluation and Progress of Sultanate of Oman's ICAO GRSAP Implementation:* Conducting a comprehensive review of Oman's advancements in aligning with the ICAO's Global Runway Safety Action Plan (GRSAP) directives. This includes assessing the establishment, operational effectiveness, and outcomes of Local Runway Safety Teams (LRSTs) in promoting runway safety.
- *Data Integration and Collaborative Risk Analysis:* Facilitating the integration and collective examination of data pertinent to primary runway safety hazards. This process involves the collaboration of various stakeholders to identify and analyse critical data points, contributing to a holistic understanding of runway safety challenges.
- *Development and Dissemination of Safety Enhancement Programs:* Crafting and promoting initiatives aimed at addressing identified runway safety risks. These efforts are grounded in the principles of knowledge exchange, advocacy, educational outreach, and stakeholder empowerment, ensuring a broad-based approach to enhancing runway safety.
- *Advancement of Runway Safety Initiatives and Forums:* Elevating the effectiveness and reach of existing runway safety measures, including LRSTs. This involves refining current initiatives, fostering greater participation, and enhancing the platforms for safety dialogue and collaboration.
- *Exchange of Best Practices and Safety Insights:* Encouraging the sharing of pivotal lessons, success narratives, and significant safety concerns unearthed through LRST engagements or analogous assemblies. This exchange aims to foster a culture of continuous learning and improvement within the aviation sector.
- *Interdepartmental and Sector-Wide Runway Safety Collaborations:* Working in concert with different Civil Aviation Authority (CAA) departments, external organizations, and the broader aviation community to fortify runway safety. These collaborative efforts are essential for the development and implementation of comprehensive safety measures.
- *Policy Formulation and Data Management for Surface Events:* Crafting policies for the accurate categorization and risk evaluation of surface occurrences, alongside establishing and maintaining key performance indicators. This includes the systematic collection, analysis, and classification of data regarding surface events for the Directorate General of Civil Aviation Regulations (DGCAR).
- *Surface Event Analysis and Risk Classification:* Conducting detailed examinations of surface events to determine their nature whether they are runway incursions, runway

excursions, or other surface incidents and classifying the severity of these incursions to inform appropriate responses.

- *Runway Safety Trends and Risk Factor Analysis: Analysing individual surface events and overarching statistics related to runway occurrences. This involves documenting, publishing, and disseminating findings on trends, risk factors, and learned lessons, contributing to informed safety practices.*
- *Development of Safe Surface Operations Resources: Investigating and producing resources that support safe operations on runways and taxiways. These resources aim to guide airport operators, pilots, and air traffic controllers towards best practices in runway safety.*
- *Review and Optimization of Runway Safety Procedures and Practices: Regularly assessing the efficacy and impact of existing runway safety procedures, policies, and practices. This periodic review ensures that safety measures are both effective and reflective of the latest standards and insights.*
- *Standardization and Guidance for LRST Operations: Establishing standardized procedures for the operation of LRSTs, along with providing guidelines and best practices for the conduct of LRST activities. This standardization ensures consistency and efficacy in runway safety efforts across different regions and contexts.*

5. Outcomes – Actions

The National Runway Safety Committee (NRSC) is action and outcome-oriented, focusing on key areas to enhance runway safety:

- a) Addressing issues discovered during the implementation and support of effective Local Runway Safety Teams (LRSTs) at aerodromes.
- b) Promoting continuous improvement of runway safety.
- c) Mitigating the risk of unstable approaches, a common precursor to runway excursions.
- d) Standardisation of terminology for consistent sharing of runway safety performance and risk information industry wide.
- e) Fostering shared mental model for runway safety.

The following runway safety related occurrences should be considered in the safety performance data set:

- (a) Abnormal runway contact.
- (b) Ground collision.
- (c) Runway excursion.
- (d) Runway incursion.
- (e) Loss of control on runway ground.
- (f) Collision with obstacle(s).
- (g) Undershoot/ Overshoot.
- (h) Use of the wrong runway (runway confusion);
- (i) High speed rejected take-off.
- (j) Wildlife event (including bird strike).
- (k) Damage from Foreign Object Debris (FOD).

- (l) Planned airport developments.
- (m) Any user concerns related to runway operations and safety; and
- (n) Air Shows and other special events.

6. Membership

The NRSC membership is designed to facilitate wide industry involvement in identifying, creating, executing, and promoting runway safety initiatives at both national and local levels, as well as within the members' own organizations. It's crucial for NRSG members to not only actively participate in NRSG activities and safety initiatives but also have the capacity to drive change within their own organizations.

- Directorate General of Civil Aviation Regulations (DGCAR), CAA (chair).
- Directorate General of Air Navigation (DGAN), CAA.
- Oman Transport Safety Bureau (OTSB).
- Oman Airports,
- Oman Aviation Academy.
- Royal Air Force of Oman (RAFO),
- Oman Air,
- Salam Air,
- Alsharqie.
- Other organisations to be confirmed.

7. Administration

The NRSG will meet bi-annually, with additional meetings scheduled as required.

Chair: The NRSG will be chaired and coordinated by DGCAR.

New business/issues/topics for discussion: Any new matters for discussion or consideration at the NRSG should be submitted through a formal document and provided to attendees well in advance, ideally three weeks before the meeting.

Venue: The NRSG will meet at a location deemed convenient and cost-effective for NRSG members.

Agenda: Individual agenda will be developed for each meeting and provided to members in a timely manner (ideally one week prior to the meeting).

8. Reporting

The NRSC, as a hazard specific NASC senior level committee, will provide information only copies of outcomes (generally in the form of Minutes) to the National Aviation Safety Committee (NASC). This reporting is intended to inform the NASC of the status and performance of runway safety at a national (big picture) level.

9. Recommendations and referrals

On occasion, matters may arise that are considered by the NRSC as being nationally significant and may require further or higher consideration. In these circumstances the NRSC may advocate these specific matters formally to the NASC for consideration and escalation as required.

NASC may also request support, guidance, or advice from the NRSC with regard to specific identified runway safety issues as required.