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*International Civil Aviation Organization***Ninth Meeting of the Aerodromes Operations and Planning Sub-Group (AOP/SG/9)***Bangkok, Thailand, 30 June to 4 July 2025*

Agenda Item 5: State's/Aerodrome Operator's update and best practices on:
– **Runway Surface Condition Assessment and Reporting**

IMPLEMENTATION OF GLOBAL REPORTING FORMAT (GRF) FOR RUNWAY SURFACE CONDITIONS IN MALAYSIA

(Presented by Malaysia)

SUMMARY

This paper outlines the implementation of the Global Reporting Format (GRF) for assessing and reporting of runway surface conditions in Malaysia, including the development of an implementation framework and coordination with relevant stakeholders, such as Civil Aviation Authority of Malaysia (CAAM), airlines and air traffic service providers.

1. INTRODUCTION

1.1 The Global Reporting Format (GRF), is an internationally standardized method developed by the International Civil Aviation Organization (ICAO) for assessing and reporting runway surface conditions, particularly during contamination (e.g., by water, etc.). It came into global implementation on 4 November 2021, replacing previous reporting practices to improve runway safety by providing more accurate, consistent and timely information to pilots and air traffic controllers.

1.2 The Runway Condition Report (RCR) is used by aerodrome operators for reporting the assessed condition of a runway surface. The RCR provides detailed, objective information such as the type, depth and coverage of contamination, as well as the corresponding Runway Condition Code (RWYCC) to support accurate decision-making by pilots and air traffic controllers.

1.3 Malaysia Airports Holdings Berhad (MAHB), as the aerodrome operator in Malaysia, has implemented the GRF across its network of aerodromes since 4 November 2021. This paper outlines the initiatives undertaken throughout the implementation process, including the structured framework and close coordination with key stakeholders such as the Civil Aviation Authority of Malaysia (CAAM), airlines and air traffic controllers. These coordinated efforts aimed to ensure a seamless transition to the new ICAO compliant reporting methodology and to enhance the overall safety and efficiency of runway operations.

1.4 The successful implementation of Global Reporting Format in Malaysia ultimately benefits all stakeholders within the aviation industry by reinforcing regulatory compliance and strengthening overall aerodrome safety.

2. DISCUSSION

Framework Formation

2.1 In the early phase of implementation, the focus was on building a solid internal foundation. MAHB prioritized organizational readiness and aimed to ensure that all relevant staff were well-versed in the requirements set by both the CAAM and the ICAO. This was achieved through internal briefings, knowledge-sharing sessions, and thorough reviews of key reference materials, including ICAO Annex 14, ICAO Annex 15, Procedures for Air Navigation Services (PANS) Aerodromes (Doc 9981), Doc 10066 (SNOWTAM template), Circular 355, and the national guidance material Civil Aviation Guidance Material (CAGM) 1402.

2.2 A comprehensive gap analysis was then carried out across all MAHB-operated aerodromes. This assessment examined current practices for runway condition assessment and reporting, highlighting areas where procedures did not yet meet GRF requirements.

2.3 Based on the outcomes of the gap analysis, MAHB developed a structured implementation framework. This included the formulation of Standard Operating Procedures (SOPs) to standardize runway inspections and reporting processes, along with the clear assignment of roles and responsibilities for operations personnel. A unified reporting template based on the ICAO RCR was introduced to ensure consistent communication. The Runway Condition Assessment Matrix (RCAM) was integrated into daily operations to facilitate accurate and consistent assignment of RWYCC. To further support implementation, internal guidance materials were prepared, closely aligned with ICAO standards and national regulatory requirements.

2.4 In preparation for the applicability date of the GRF, MAHB incorporated GRF concepts and procedures into the Certified Runway Inspector (CRI) Course. The CRI Course is designed to ensure that aerodrome personnel responsible for runway inspections are equipped with the necessary knowledge, skills and competencies to perform their duties effectively. The CRI certification remains valid for three years, after which personnel must attend refresher training to maintain their qualifications and stay updated with evolving best practices.

Stakeholders Engagement

2.5 Implementing the GRF successfully requires strong collaboration with all key stakeholders. By working together, everyone involved gains a clear understanding of their roles and responsibilities, ensuring that GRF procedures are applied consistently and the transition is smooth.

2.6 MAHB actively engages with the CAAM to make sure all procedures meet national regulatory requirements and align with ICAO standards. Airlines are brought into the conversation to help them better understand the RCR and how it affects aircraft performance and flight planning. Close coordination with Air Traffic Control (ATC) also ensures that runway condition updates are shared accurately and promptly, using GRF-compliant formats.

2.7 To bring everyone onto the same page, joint workshops and simulation exercises are organized with all stakeholders. These sessions allow teams to apply GRF concepts in realistic scenarios, clarify responsibilities during actual operations, and resolve any questions or uncertainties before going live.

2.8 To support effective implementation of the GRF, comprehensive training programs were conducted for all relevant personnel. This included aerodrome inspectors, airport operations staff, ATC personnel and airline operations teams.

Conclusion

2.9 The successful implementation of the GRF by MAHB has significantly improved runway safety and operational efficiency. This was achieved through structured internal preparation, strong stakeholder collaboration and standardized procedures aligned with ICAO and national requirements. Ongoing training efforts, including integration into the CRI Course, ensure long-term compliance and continuous improvement in runway condition reporting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) deliberate the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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