



International Civil Aviation Organization

RASG-MID Steering Committee

Sixth Meeting (RSC/6)
(Cairo, Egypt, 25-27 June 2018)

Agenda Item 3: Regional Performance Framework for Safety

**GUIDANCE FOR MONITORING AND REPORTING RUNWAY
SURFACE CONDITIONS AT AERODROMES**

(Presented by the United States)

SUMMARY

The International Civil Aviation Organization (ICAO) has recognized the importance of quick and accurate reporting of runway surface conditions to aircraft in order to reduce the chances of runway excursions. In this regard, the U.S. Federal Aviation Administration (FAA) has developed guidance material that will provide aerodrome operators best practices for monitoring and reporting runway surface conditions. The FAA intends to work with Member States in the Middle East to collect additional best practices and publish ICAO guidance material on this topic.

REFERENCES

- FAA Advisory Circular 150/5200-30D: *Airport Field Condition Assessments and Winter Operations Safety.*

1. INTRODUCTION

1.1 As runway excursions continue to be the number one incident type occurring around the world, aviation authorities are challenged to identify ways to mitigate these types of incidents from occurring. Specifically, the FAA has determined that a major reason for the occurrence of excursions is due to a lack of monitoring and reporting of runway surface conditions by aerodrome operators. Independently, States provide guidance to aerodrome operators. However, the FAA is working with ICAO to invite member states in the ICAO-MID region to share best practices on monitoring and reporting runway surface conditions in order to incorporate, them into a new ICAO guidance document for member states and aircraft operators. Once developed, this guidance can be utilized to create a safer and more efficient runway condition-reporting program throughout airports within the ICAO-MID Region.

2. DISCUSSION

2.1 During the Fourth meeting of the ICAO Runway and Ground Safety Working Group, WP/11 discussed the implementation of aerodrome safety priorities and objectives in the MID Region. Specifically, runway and taxiway aircraft excursions were discussed due to their frequent occurrences and great potential to be mitigated.

2.2 Discussion during the meeting highlighted the fact that many airports within ICAO MID do not have friction-measuring devices that provide aircraft operators with useful surface friction conditions for landing and take-off operations. Although useful, friction measurements alone do not provide entirely accurate runway surface conditions to pilots. Therefore, they must be combined with other information that can be gathered by airport operators and disseminated to flight crews.

2.3 The meeting suggested the development of ICAO guidance to provide States with best practices in monitoring and reporting runway surface conditions to mitigate potential runway excursions. The FAA offered to share its best practices by using its own Advisory Circular 150/5200-30D: *Airport Field Condition Assessments and Winter Operations Safety* as a starting point for this effort that would assist in the prevention of such excursions.

2.4 Since the RGS-WG, the group of subject matter experts (SME) have identified the following contributing factors from the aerodrome perspective that lead to runway excursions occurring within the ICAO MID Region:

- late or inaccurate runway conditions reports (i.e., lack of friction measuring devices available within the region may be a contributing factor); and
- failure to close runways and taxiways when conditions dictate to do so.

2.5 In addition, the group of SMEs have initially identified the need for guidance in the following areas:

2.5.1 Increase “continuous monitoring” of airport surfaces and acceptable procedures:

- Observing which exit taxiways are being used
- Maintaining a regular program of friction testing to identify trends in runway traction
- Monitoring pavement physical conditions including compliance with airport design criteria
- Air and surface temperatures, contaminant types and depths
- Monitoring air traffic and pilot communications as it relates to Pilot Reports (PIREPs) for the portion of runway that was used.
- Monitoring weather patterns
- Increased self-inspection frequency.

2.5.2 Reporting runway surface conditions:

- Establish procedures or letters of agreement (LOA) with air traffic control tower to outline coordination and reporting of runway surface conditions
- Closing runway with “NIL braking” conditions as reported by PIREPs or after two consecutive reports of “poor braking.”
- Consistently review NOTAM status any time runway conditions change and at the change of each shift.

2.6 The group will continue working on the ICAO guidance and invites other States to provide their expertise in monitoring and reporting runway surface conditions. The final ICAO guidance will be presented for States' approval later in 2018. For States interested in contributing in this effort, contact Mr. Mohamed Iheb Hamdi, Regional Officer of Aerodromes and Ground Aids at: mhamdi@icao.int.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note:

- a) the contents of this working paper; and
- b) the States' are invited to provide their expertise in the development of the ICAO guidance for monitoring and reporting of runway surface conditions.

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