| SULTANATE OF OMAN<br>CIVIL AVIATION AUTHORITY | | |
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# IMPLEMENTATION OF THE GLOBAL REPORTING FORMAT (GRF)

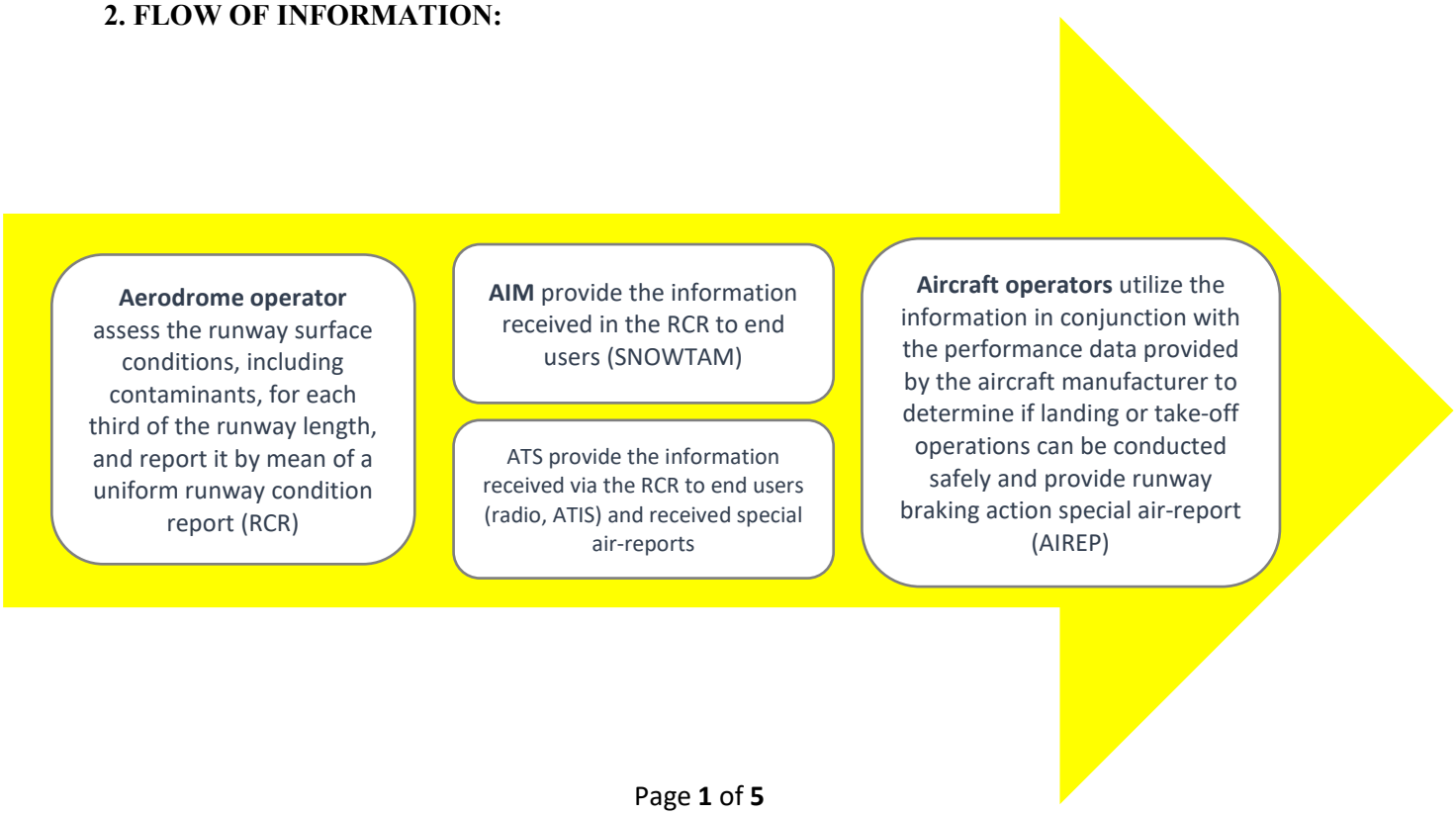
## 1. INTRODUCTION:

1.1. The new ICAO methodology for assessing and reporting runway surface conditions, commonly known as the Global Reporting Format (GRF), enables the harmonized assessment and reporting of runway surface conditions and a correspondingly improved flight crew assessment of take-off and landing performance.

The GRF, applicable on **4 November 2021**, is described through amendment 13-B to Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*; Annex 3 —*Meteorological Service for International Air Navigation*; Annex 6 —*Operation of Aircraft*, Part I — *International Commercial Air Transport — Aeroplanes and Part II —International General Aviation—Aeroplanes*; Annex 8 — *Airworthiness of Aircraft*; Annex 15 — *Aeronautical Information Services* and *Procedures for Air Navigation Services* (PANS) — *Aerodromes* (PANS-Aerodromes, Doc 9981), *Aeronautical Information Management* (PANS-AIM, Doc 10066) and *Air Traffic Management* (PANS-ATM, Doc 4444).

In addition, supporting material is available in Circular 355, *Assessment, Measurement and Reporting of Runway Surface Conditions* and in the Doc 10064 *Aeroplane Performance Manual* (in preparation).

## 2. FLOW OF INFORMATION:



2.1 **Collection of information:** aerodrome operator is responsible to assess the condition of the runway for each third of the runway and issue a Runway Condition Report (RCR). This report contains the RWYCC (Runway Condition Code) and information which describes the runway surface condition: type of contamination, depth, coverage for each third of the runway, etc. and other relevant information.

This code is derived from the Runway Condition Assessment Matrix (RCAM) and associated procedures for downgrading and upgrading.

| Runway condition assessment matrix (RCAM) | | | |
|---|---|---|---|
| Assessment criteria | | Downgrade assessment criteria | |
| Runway condition code | Runway surface description | Aeroplane deceleration or directional control observation | Pilot report of runway braking action |
| 6 | • DRY | --- | --- |
| 5 | • FROST<br>• WET (The runway surface is covered by any visible dampness or water up to and including 3 mm depth)<br>***Up to and including 3 mm depth:***<br>• SLUSH<br>• DRY SNOW<br>• WET SNOW | Braking deceleration is normal for the wheel braking effort applied AND directional control is normal. | GOOD |
| 4 | ***−15°C and Lower outside air temperature:***<br>• COMPACTED SNOW | Braking deceleration OR directional control is between Good and Medium. | GOOD TO MEDIUM |
| 3 | • WET ("slippery wet" runway)<br>• DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW<br>***More than 3 mm depth:***<br>• DRY SNOW<br>• WET SNOW<br>***Higher than −15°C outside air temperature[1]:***<br>• COMPACTED SNOW | Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced. | MEDIUM |
| 2 | ***More than 3 mm depth of water or slush:***<br>• STANDING WATER<br>• SLUSH | Braking deceleration OR directional control is between Medium and Poor. | MEDIUM TO POOR |
| 1 | • ICE [2] | Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced. | POOR |
| 0 | • WET ICE [2]<br>• WATER ON TOP OF COMPACTED SNOW [2]<br>• DRY SNOW or WET SNOW ON TOP OF ICE [2] | Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain. | LESS THAN POOR |

*Note – Details of the Global Reporting Format is contained in the Procedures for Air Navigation Services (PANS)-Aerodromes (PANS-Aerodromes, Doc 9981) and ICAO Circular 355 (Assessment, Measurement and Reporting of Runway Surface Conditions).*

2.2 **Dissemination of information:**

- Aeronautical Information Management (AIM) provide the information received in the RCR to end users through SNOWTAM in the new format.

*Note – Details of the new SNOWTAM format is contained in the Procedures for Air Navigation Services (PANS)- Aeronautical Information Management (PANS-AIM, Doc 10066) and or CAA regulation AMC CAR-175.*

- Air Traffic Services (ATS) provide the information received via the RCR to end users through radio, ATIS, etc. and received special air-reports.

2.3 **Using the information:** Aircraft operators utilize the information in conjunction with the performance data provided by the aircraft manufacturer to determine if landing or take-off operations can be conducted safely and provide runway braking action special air-report (AIREP).

## 3. IMPLEMENTATION PLAN:

***Date of implementation***

3.1. The new ICAO GRF including the new SNOWTAM format will be implemented in Sultanate of Oman on 4 November 2021 at 0000 UTC.

3.2. The GRF Implementation Milestone of Sultanate of Oman is contained at Attachment to this AIC.

***National GRF implementation Team***

3.3. The national GRF implementation team comprising of DGCAR GRF taskforce and the focal points nominated by stakeholders as provided in National GRF Implementation Plan.

***Stakeholders involved***

The following stakeholders in Sultanate of Oman are involved in the implementation of the GRF:

- Civil Aviation Authority (Muscat and Dhofar Office)
- Air Traffic Services (ATCOs)
- Aeronautical Information Management and NOTAM office
- Oman Airports Company
- Occidental of Oman-Mukhaizna
- Oman Air, Salam Air and Royal Flight (flight operations departments, dispatchers, pilots)

***Coordination between aerodromes, AIM (NOF) and ATS units***

3.5. Coordination for dissemination of information received via RCR between Oman airport company and AIM and or ATS will be fulfilled through implementation of SLAs between them.

End

# APPENDIX

## GRF Implementation Plan (Milestone)

| Milestone ID | ACTION | ENTITY RESPONSIBLE | TARGET DATE | EFFECTIVE DATE | REMARKS |
|---|---|---|---|---|---|
| **GRF 1** | Designate a focal point to coordinate implementation activities at the national level | CAA | 30 Apr 2021 | | |
| **GRF 2** | Identify concerned focal points in each entity (CAA, Airport Operators, ANSP, Aircraft operators) | CAA, OAC, DGAN, DGMET, OXY, Aircraft operators | 30 Apr 2021 | | |
| **GRF 3** | Establish a National GRF implementation team | CAA | 1 Jun 2021 | | |
| **GRF 4** | Develop a detailed national implementation plan detailing tasks and timelines | CAA, OAC, DGAN, DGMET, OXY, Aircraft operators | 15 Jun 2021 | | |
| **GRF 5** | Promote GRF in context of safety by developing Aeronautical Information Circular (AIC) | CAA, DGAN (AIM) | 30 Jun 2021 | | |
| **GRF 6** | Develop and promulgate regulations, standards and guidance material | CAA | 15 Jul 2021 | | |
| **GRF 7** | Support the conduct the initial training for the CAA, Airports, ANSP and Aircraft Operators' personnel | CAA | 30 Aug 2021 | | |
| **GRF 8** | Coordinate with Airport Runway Safety Teams | OAC and OXY | 30 Aug 2021 | | |
| **GRF 9** | Update SNOWTAM Format (NOTAM/SNOWTAM systems) | DGAN (AIM) | 30 Sep 2021 | | |
| **GRF 10** | Update AIP, as appropriate | CAA, DGAN (AIM) | 7 Oct 2021 | | AIRAC 2/21 |

| Milestone ID | ACTION | ENTITY RESPONSIBLE | TARGET DATE | EFFECTIVE DATE | REMARKS |
|---|---|---|---|---|---|
| **GRF 11** | Conduct tests prior to the effective implementation | ALL | 10 Oct 2021 | | Ability to receive SNOWTAM from Cold climate States as of Oct |
| **GRF 12** | Applicability date for the new methodology for assessing and reporting runway surface conditions | ALL | 4 Nov 2021 | | |