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MID Region Dashboard on Global Reporting Format (GRF) Implementation

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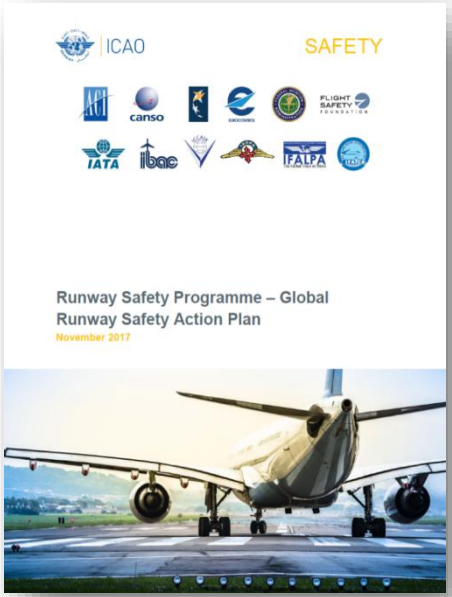
MIDANPIRG/19-RASG-MID/9

(Riyadh, Saudi Arabia, 14 - 17 February 2022)

Background

- Runway Safety: A global safety priority
- Runway excursions: highest risk category
  - Top contributing factor: Poor braking action
  - Leading factor: Contaminated Runway

- Mitigation by ICAO's Global Reporting Format (GRF)
  - World-wide implementation agreed
  - Applicability date: **5 November 2020 extended** to **4 November 2021** (Ref: **SL AN 2/33-20/73**)



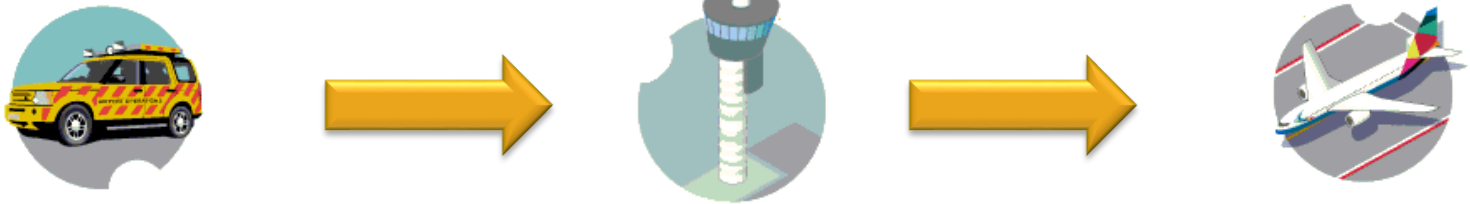
GRF Benefits

- Accurate reporting on runway surface conditions at the appropriate time.
- Runway Condition Report (RCR) will be used by the flight Crew to calculate the operational performance of the aeroplane during landing and take-off.
- Reduce the risk related to Runway Excursion.

GRF: Runway Condition Report (RCR)

A standardized common terminology and phraseology for the description of runway surface conditions that can be **objectively** used by aerodrome operator inspection personnel, air traffic controllers, aircraft operators and flight crew.

GRF: Stakeholder responsibilities



- **Aerodrome operators** assess the runway surface conditions, including contaminants, for each third of the runway length, and report them by means of a uniform runway condition report (RCR).

- **Aeronautical information services (AIS)** provide the information received in the RCR to end users (SNOWTAM).
- **Air traffic services (ATS)** convey the information received via the RCR and/or special air-reports (AIREP) to end users (voice communications, ATIS, CPDLC).

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

RCAM: Runway Condition Assessment Matrix

Table II-1-5. Runway condition assessment matrix (RCAM)

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 • WET (The runway surface is covered by any visible dampness or water up to and including 3 mm depth) ***Up to and including 3 mm depth:*** • SLUSH • DRY SNOW • 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:*** • COMPACTED SNOW	Braking deceleration OR directional control is between Good and Medium.	GOOD TO MEDIUM
3	• WET ("slippery wet" runway) • DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW ***More than 3 mm depth:*** • DRY SNOW • WET SNOW ***Higher than −15°C outside air temperature[1]:*** • 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:*** • STANDING WATER • 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] • WATER ON TOP OF COMPACTED SNOW [2] • 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

RCAM : Two Scenarios faced by Airports

- Airports exposed to snow and ice to be fully prepared to use the global reporting format (fully equipped, fully trained).

- Airports are not be exposed to snow and ice and thereby have no need to use the full global reporting format other than for Wet/Water conditions;.

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RCAM — WET and DRY only (based on PANS-Aerodromes (Doc 9981))

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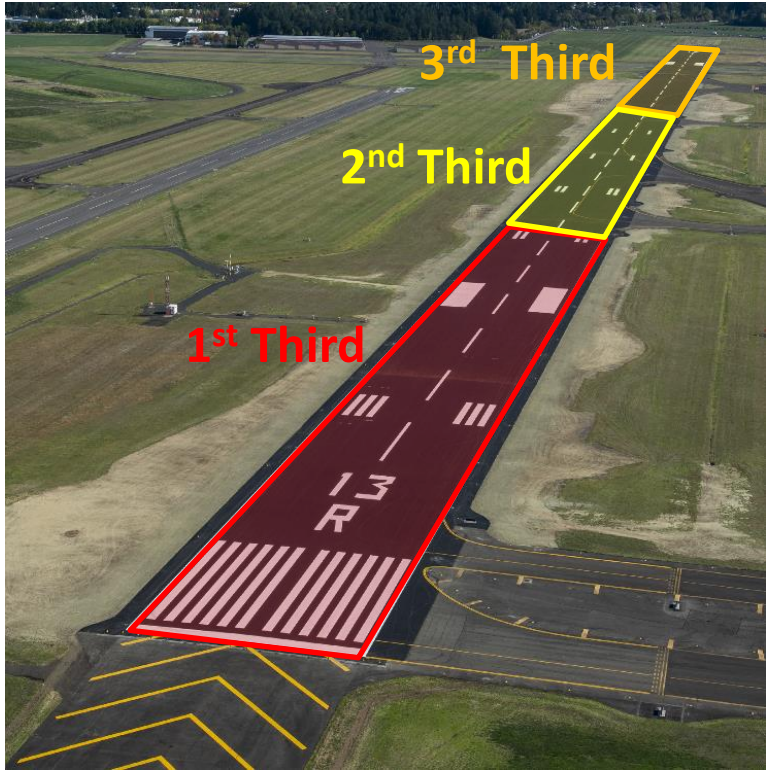
- **Aeroplane Deceleration or Directional Control Observation**

- **Pilot report on braking action/ special air-report (AIREP)**

- An assigned RWYCC 5, 4, 3 or 2 shall not be upgraded.
- An assigned RWYCC 1 or 0 can be upgraded.
- Upgrading of RWYCC 1 or 0 using the appropriate procedures shall not be permitted to go beyond a RWYCC 3.

GRF: Airport Operator responsibility

- For each third of the runway length the Airport Operator assesses the:
  - % coverage of the contaminant
  - Depth of the contaminant
  - Type of the contaminant



GRF in Practice

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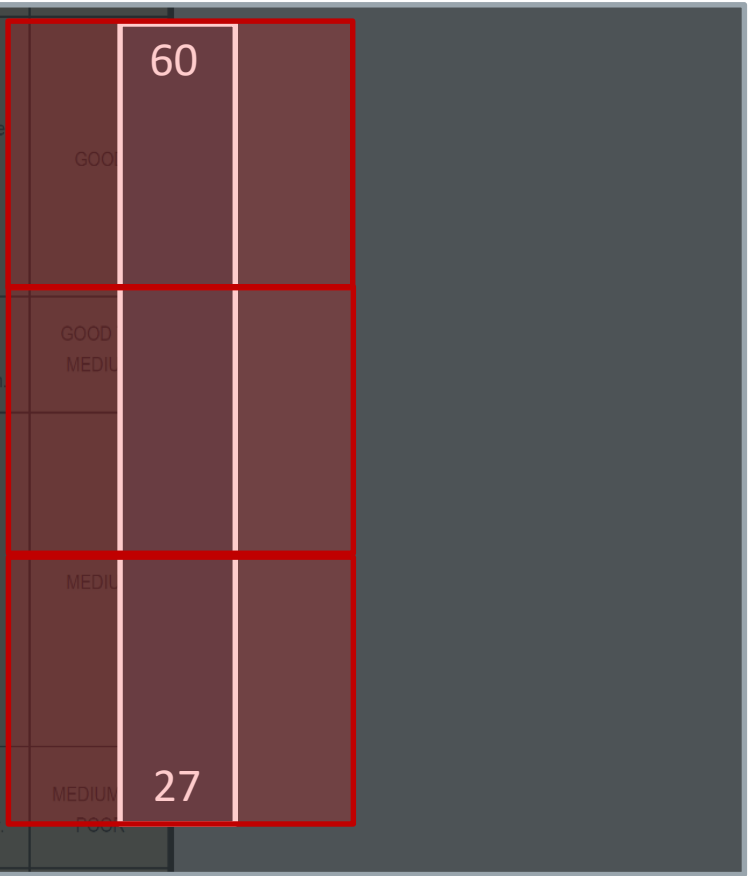

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60

90% Coverage

80% Coverage

70% Coverage

27

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Braking deceleration OR directional control is between Good and Medium	GOOD MEDIUM	**2**
Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	MEDIUM	**2** 27
Braking deceleration OR directional control is between Medium and Poor.	MEDIUM POOR	

RWYCC 3/2/2

Runway condition Report (RCR)

- The RCR consists of two sections:
  - **Aeroplane take-off and landing performance calculations**; and
  - **Situational awareness** of the surface conditions on the runway, taxiways and aprons.

GRF Implementation Challenges

- National regulatory Framework Implementation on GRF.

- GRF Deployment on Aerodromes:
  - **Runway surface assessment and reporting accuracy.**
  - **Operational Personnel qualification.**
  - **Coordination process with concerned stakeholders.**
  - **Management of change.**

GRF Implementation Challenges

Training, Training and Training

ACI AIRPORTS COUNCIL INTERNATIONAL

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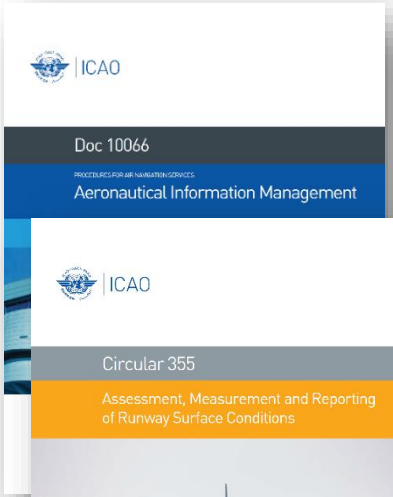
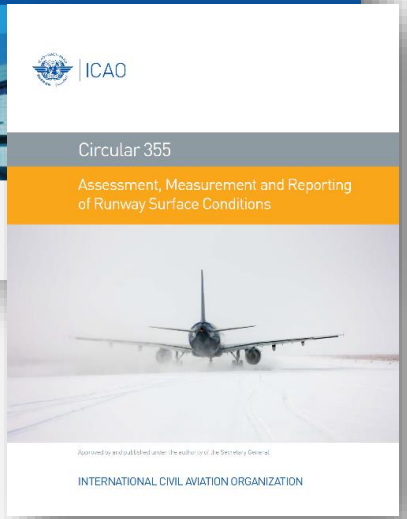
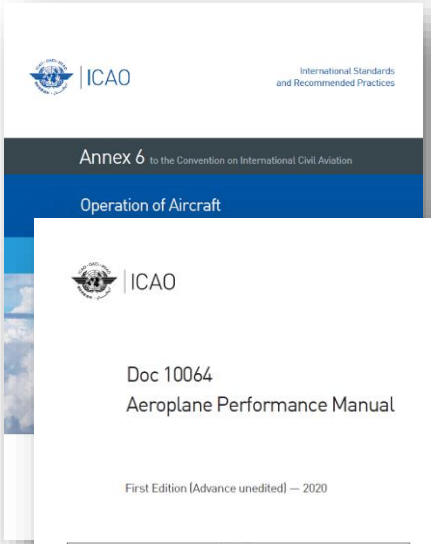
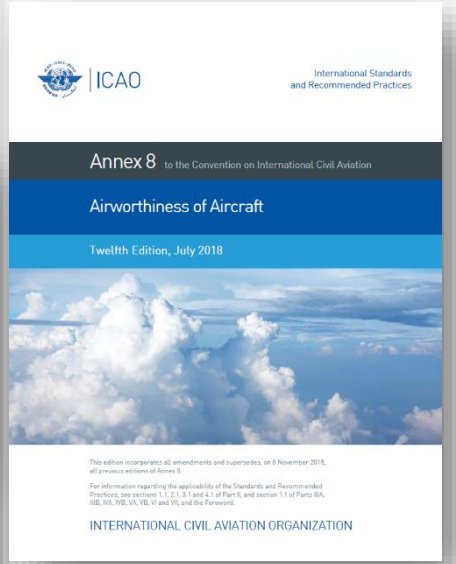
ICAO Provisions on GRF









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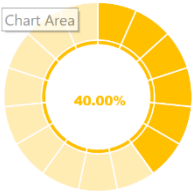
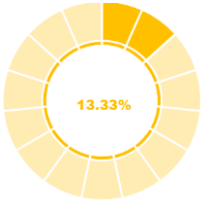
MID States GRF Implementation Dashboard

Bahrain

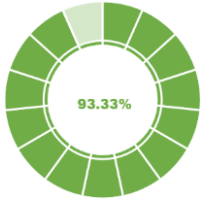


Egypt

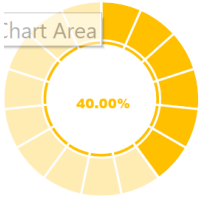
Iran



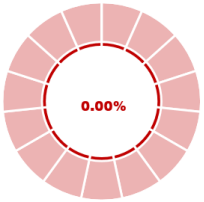
Iraq



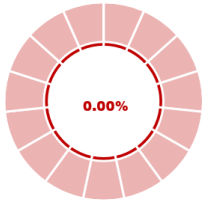
Jordan



Kuwait

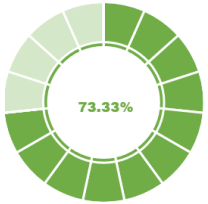


Lebanon



Libya

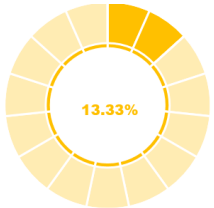
Oman



Qatar

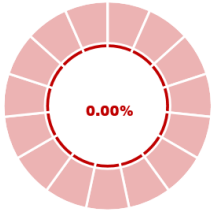
Saudi Arabia

Sudan



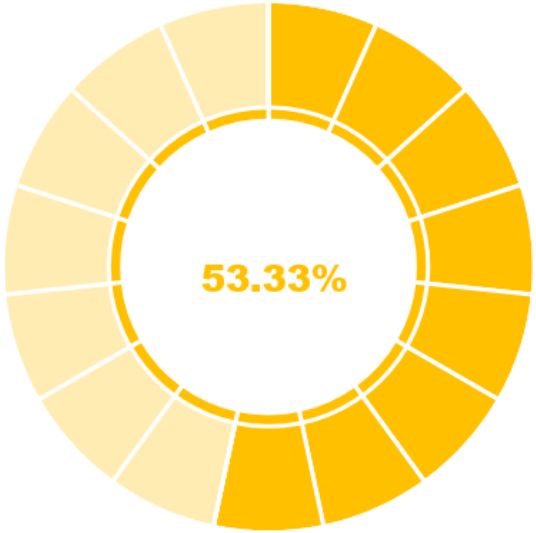
Syria

UAE



Yemen

MID Region GRF Implementation Status




MONTRÉAL
(HEADQUARTERS)
PARIS
(EUROPEAN AND
NORTH ATLANTIC)
BEIJING
(ASIA-PACIFIC
SUB-OFFICE)
CAIRO
(MIDDLE EAST)
MEXICO CITY
(NORTH AMERICA AND CARIBBEAN)
DAKAR
(WESTERN AFRICA)
BANGKOK
(ASIA-PACIFIC)
NAIROBI
(EASTERN AFRICA)
LIMA
(SOUTH AMERICA)
ICAO

THANK YOU!