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IMPLEMENTATION OF THE GLOBAL REPORTING FORMAT (GRF)

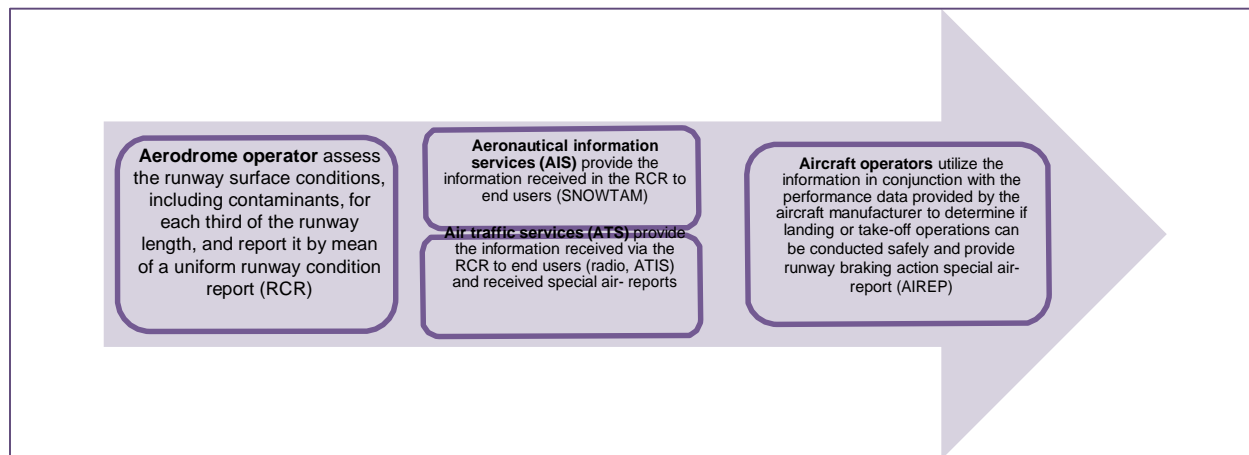
1. INTRODUCTION:

- 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.

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).

Runway condition assessment matrix (RCAM)			
Assess		Downgrade assessment criteria	
Runway condition code	Runway surface description	Aeroplane deceleration or directional control observation	Pilot report of runway braking action
6	<ul style="list-style-type: none"> • DRY 	---	---
5	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • SLUSH • DRY SNOW • WET SNOW 	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	GOOD
4	<ul style="list-style-type: none"> • -15°C and Lower outside air temperature: <ul style="list-style-type: none"> • COMPACTED SNOW 	Braking deceleration OR directional control is between Good and Medium.	GOOD TO MEDIUM
3	<ul style="list-style-type: none"> • WET ("slippery wet" runway) • DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW • More than 3 mm depth: <ul style="list-style-type: none"> • DRY SNOW • WET SNOW • Higher than -15°C outside air temperature: <ul style="list-style-type: none"> • COMPACTED SNOW 	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	MEDIUM
2	<ul style="list-style-type: none"> • More than 3 mm depth of water or slush: <ul style="list-style-type: none"> • STANDING WATER • SLUSH 	Braking deceleration OR directional control is between Medium and Poor.	MEDIUM TO POOR
1	<ul style="list-style-type: none"> • ICE 	Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	POOR
0	<ul style="list-style-type: none"> • WET ICE • WATER ON TOP OF COMPACTED SNOW • DRY SNOW or WET SNOW ON TOP OF ICE 	Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	LESS THAN POOR

2.2 Dissemination of information:

- **Aeronautical Information Services (AIS)** 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). Additional information on the SNOWTAM format could be found in the ICAO EUR/NAT Guidance on the Issuance of SNOWTAM.

- **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:

3.1 ***Date of implementation***

The new ICAO GRF including the new SNOWTAM format will be implemented in Maldives on **4 November 2021 at 0000 UTC**.

The National GRF Implementation Plan of Maldives is contained at **Attachment** to this AIC.

3.2 ***National GRF implementation Team***

The national GRF implementation team comprise of the focal points nominated by stakeholders and endorsed by the CAA as provided in the National GRF Implementation Plan.

3.3 ***Stakeholders involved***

The following stakeholders in Maldives are involved in the implementation of the GRF:

- Aerodrome Operators
- Air Traffic Services (ATCOs)
- Aeronautical Information Services (International NOTAM Office)
- Airlines (flight operations departments, dispatchers, pilots)
- Maldives Civil Aviation Authority (MCAA)

3.4 ***Coordination between aerodromes, AIS (NOF) and ATS units***

The aerodrome operator is responsible for reporting changes and providing a Runway Condition Report (RCR) regarding the state of movement areas to the ATS and AIS at the aerodrome. The ATS and AIS is responsible for dissemination to all whom the information is of direct operational significance.

3.5 ***Training and awareness***

The GRF Implementation team will ensure that GRF training is undertaken by required personnel prior to trials in October 2021.

3.6 ***Tests and trials***

Trials for the GRF Implementation will be conducted before the end of October 2021. This will be coordinated between stakeholders.

ATTACHMENT

NEW ICAO METHODOLOGY FOR ASSESSING AND REPORTING RUNWAY SURFACE CONDITIONS (GRF) IMPLEMENTATION ACTION PLAN MALDIVES

ID	ACTION	ENTITY RESPONSIBLE	TARGET DATE	IMPLEMENTATION DATE	REMARKS
GRF 1	Review ICAO provisions and guidance and other Organisations guidance (see References).	CAA	31.12.2020	01.06.2020	COMPLETED
GRF 2	Designate a focal point to coordinate implementation activities at the national level.	CAA	31.12.2020	01.06.2020	COMPLETED
GRF 3	Identify concerned focal points in each entity (CAA, Airport, ANSP, Aircraft operators – include BA, GA and military as applicable).	CAA, Airports, ANSP, Aircraft operators	31.12.2020	01.07.2020	COMPLETED
GRF 4	Establish an Implementation Coordination Team including staff from the identified stakeholder entities.	CAA	15.01.2021	01.01.2021	COMPLETED
GRF 5	Conduct the initial training for the following: (e.g. ICAO/ACI/IATA online courses, national awareness workshop, etc.).				
	CAA,	CAA	-	04.05.2021	COMPLETED
	ANSP	CAA	-	15.09.2021	COMPLETED
	Aircraft Operators' personnel	CAA		26.08.2021	COMPLETED
	International Airports	CAA		26.08.2021	COMPLETED
	Domestic Airports	CAA		15.10.2021	ON-GOING
GRF 6	Identify regulations, standards, procedures and guidance material to be developed/amended.	National Focal Point and the Implementation Coordination Team	01.04.2021	01.10.2020	COMPLETED

GRF 7	Develop a detailed national implementation plan and safety risk assessment. Each entity should also establish its specific implementation plan and safety risk assessment.	CAA, Airports, ANSP, Aircraft operators	01.04.2021	15.10.2021	Implementation plan completed, Safety risk Assessment ON-GOING
GRF 8	Identify the necessary means and resources for the implementation (human, financial and material resources).	National Focal Point and the Implementation Coordination Team	01.04.2021	01.04.2021	COMPLETED
GRF 9	Consult with Airport Runway Safety Teams.	Airports	14.05.2021	26.08.2021	COMPLETED
GRF 10	Develop and promulgate regulations and standards.	CAA	14.05.2021	01.03.2021	COMPLETED ASC 139-5 Aerodrome Standards
GRF 11	Develop procedures and guidance material (translate if required).	National Focal Point and the Implementation Coordination Team	15.06.2021	15.06.2021	COMPLETED
GRF 12	Provide the necessary means and resources for the implementation (human, financial and material resources).	CAA, Airports, ANSP, Aircraft operators	30.06.2021	31.10.2021	ON-GOING
GRF 13	Conduct On-the-Job Training (OJT) on the implementation (ACI on-site GRF training course is available to support Airports).	CAA, Airports, ANSP, Aircraft operators	01.08.2021	31.10.2021	ON-GOING
GRF 14	Update SNOWTAM Format (NOTAM/SNOWTAM systems) Train on NEW SNOWTAM format	ANSP	30.09.2021	15.10.2021	ON-GOING
GRF 15	Perform tests/trials prior to the effective implementation.	All	01.10.2021	30.10.2021	One Trial Exercise conducted at VIA ON-GOING (October 2021)