



GRF Overview

Elisha Omuya

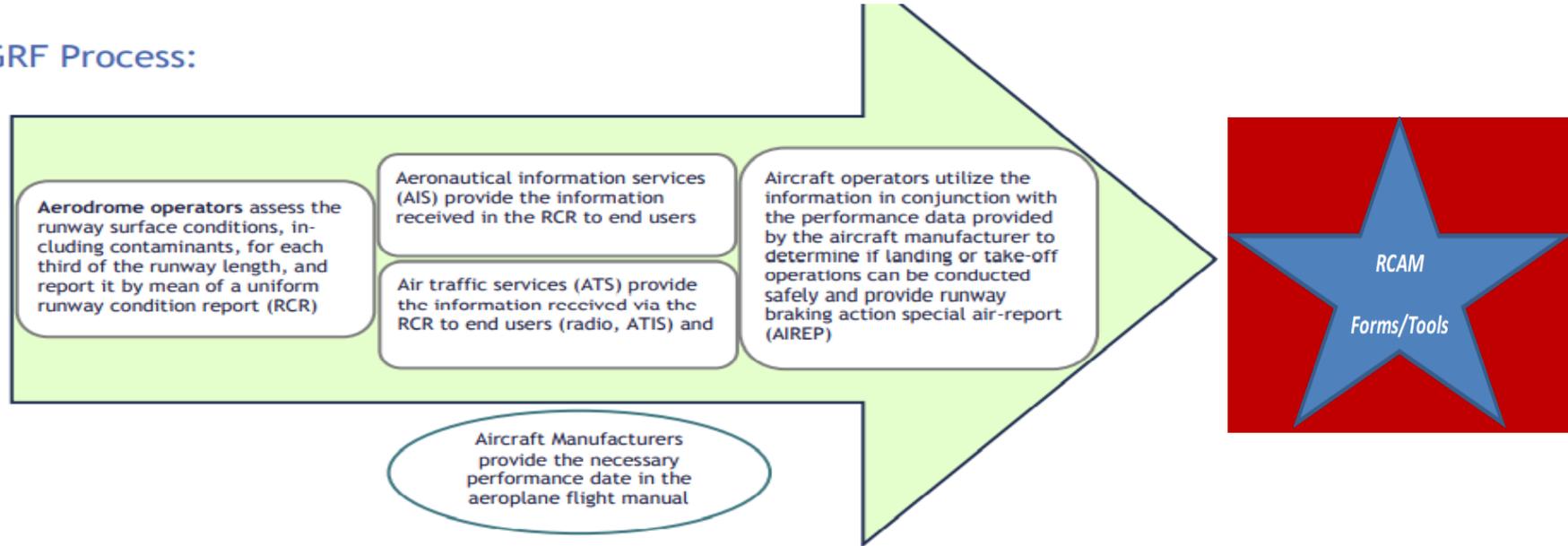
Regional officer aerodromes and ground aids

Virtual/April12,2022



GRF PROCESS

GRF Process:





ICAO Provisions on GRF

- **Annex 14, Volume 1 and PANS-Aerodromes:** fundamental provisions for assessing and reporting runway surface conditions
- **Annex 6, Parts I and II:** assessment by the pilot-in-command of the landing performance and report for commercial air transport operations
- **Annex 8:** nature of the information provided by the aircraft manufacturers in flight manuals;



ICAO Provisions on GRF

- **Annex 3:** removal of the runway state group for METAR/SPECI
- **Annex 15 and PANS-AIM:** syntax and format used for dissemination;
- **PANS-ATM:** phraseology and communication of special air-reports concerning runway braking
- **Guidance materials**
 - *Aeroplane Performance Manual (Doc 10064)*
 - *Circular 355 Assessment, Measurement and Reporting of Runway Surface Conditions*



SNOWTAM → (Serial number) <≡

Aeroplane performance calculation section			
(AERODROME LOCATION INDICATOR)	M	A)	<≡
(DATE/TIME OF ASSESSMENT <i>(Time of completion of assessment in UTC)</i>)	M	B)	→
(LOWER RUNWAY DESIGNATION NUMBER)	M	C)	→
(RUNWAY CONDITION CODE (RWYCC) ON EACH RUNWAY THIRD) <i>(From Runway Condition Assessment Matrix (RCAM) 0, 1, 2, 3, 4, 5 or 6)</i>	M	D)	/ / →
(PER CENT COVERAGE CONTAMINANT FOR EACH RUNWAY THIRD)	C	E)	/ / →
(DEPTH (mm) OF LOOSE CONTAMINANT FOR EACH RUNWAY THIRD)	C	F)	/ / →
(CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH <i>(Observed on each runway third, starting from threshold having the lower runway designation number)</i>	M	G)	/ /
COMPACTED SNOW			
DRY			
DRY SNOW			
DRY SNOW ON TOP OF COMPACTED SNOW			
DRY SNOW ON TOP OF ICE			
FROST			
ICE			
SLUSH			

HKJK 02170225 09C 3/2/1 75/100/100 06/12/12
WET/SNOW/SNOW 35



IMPLEMENTATION TASK LIST

- Updating State's regulatory framework
 - ❖ updating National regulations (transposition of ICAO provisions to the national regulations)
 - ❖ filing differences / publishing significant differences in AIP (if required)
- Establishment of a national implementation plan that takes into account the modified ICAO provisions;
- Use of GRF Implementation Action plan template





Monitoring

The operators should develop monitoring procedures which may include:

- Monitoring pavement physical conditions including contaminants types and depths
- Monitoring air traffic and pilot communications as it related to pilot reports of the portion of the runway used.
- Monitoring wheather patterns
- Increased self-inspections (reducing intervals between inspections)



GRF BENEFITS:

- Improved safety
- Better understanding of runway conditions
- Fewer runway excursions
- Improved efficiency
- Better situational awareness
- Better decision making
- Fewer runway closures
- Reduced environmental impact
- Fewer runway excursions
- Better traffic management
- Better management of de-icing products

IMPLEMENTATION CHALLENGE

- Complex Implementation by all airports around the world
- Impacts most States (a new topic for some)
- Establishment of National GRF Implementation Team and the National Implementation Plan
- Training of all National Stakeholders in a timely manner (aerodrome operators, airlines, ANSP, etc.)
- Update/upgrade of AIM system



CAPACITY BUILDING

- Applicability date 4 Nov. 2021
- HQ Organized Training
- Sensitization and Follow up workshops (Pilots, AD Operators, ANSPs,) organized by ICAO, FAA, CANSO etc in French, English and Portuguese
- DG-CAA, APIRG-RASG



ID	ACT/EN	ENTITY RESPONSIBLE	TARGET DATE	REMARKS
GRF 1	Review ICAO provisions and guidance and other Organization's guidance (see below)	CAA		
GRF 2	Designate a focal point to coordinate implementation activities at the national level	CAA		
GRF 3	Identify successful focal points in the vicinity (CAA, Airport, ANSP, Airport operator)	CAA, Airport, ANSP, Airport operator		
GRF 4	Establish an Implementation Coordination Team including staff from the identified stakeholders/organisations	CAA		
GRF 5	Conduct the initial training for the CAA, Airport, ANSP and Airport Operators' personnel in a. ICAO/CASEL (a online course, national, regional, etc.)	CAA		
GRF 6	Identify regulations, standards, procedures and guidance material to be developed/revised	National Focal Point and the Implementation Coordination Team		
GRF 7	Develop a detailed national implementation plan and safety risk assessment. Each entity should also develop its implementation plan and safety risk assessment	CAA, Airport, ANSP, Airport operator		
GRF 8	Identify the necessary status and processes for the implementation (Human, Financial and material resources)	National Focal Point and the Implementation Coordination Team		
GRF 9	Consult with Airport Runway Safety Teams	Airports		
GRF 10	Develop and promulgate regulations and standards	CAA		
GRF 11	Develop procedures and guidance material (simulate if required)	National Focal Point and the Implementation Coordination Team		
GRF 12	Provide the necessary status and processes for the implementation (Human, Financial and material resources)	CAA, Airport, ANSP, Airport operator		
GRF 13	Conduct On-the-Job Training (OJT) on the implementation (OJT on-site OJT training course is available to request Airports)	CAA, Airport, ANSP, Airport operator		
GRF 14	Performance trends given in the effective implementation	AT		
GRF 15	Applicability date for the new methodology for assessing and reporting ... (metric, method, conditions)	AT		



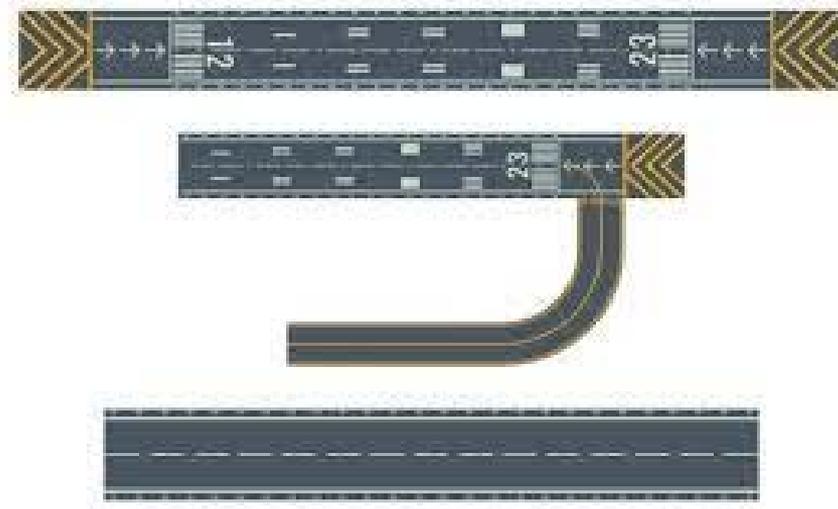
DRY RUNS

- GRF Focal points/Coordinators meeting
- Designation of a team to the dry run.
- Designation of Airlines and Airports
- Carry out Risk assessment
- Participants including, Stakeholders including AIS, ATS, Aerodromes, Airlines, IATA, CANSO.....
- Issue NOTAM on period of dry run and Aerodromes participating in the dry run
 - Dry run not affect operations at aerodromes and Provision of Air Navigation Services*
- Experiences to be shared with Regional Office for next steps



WAY FORWARD /CONSIDERATIONS

- Assistance to States to full implementation
- Workshops on implementation experiences
- Platform to provide real time data during continuous Precipitation
- Platform with minimal human interactions
- Detailed data for whole runway



135

Countries reported progress

63.3%

APAC

55.0%

ESAF

82.1%

EURNAT

49.5%

MID

80.4%

NAMCAR

60.7%

SAM

24.4%

WACAF

Regions average

Region

Please select country

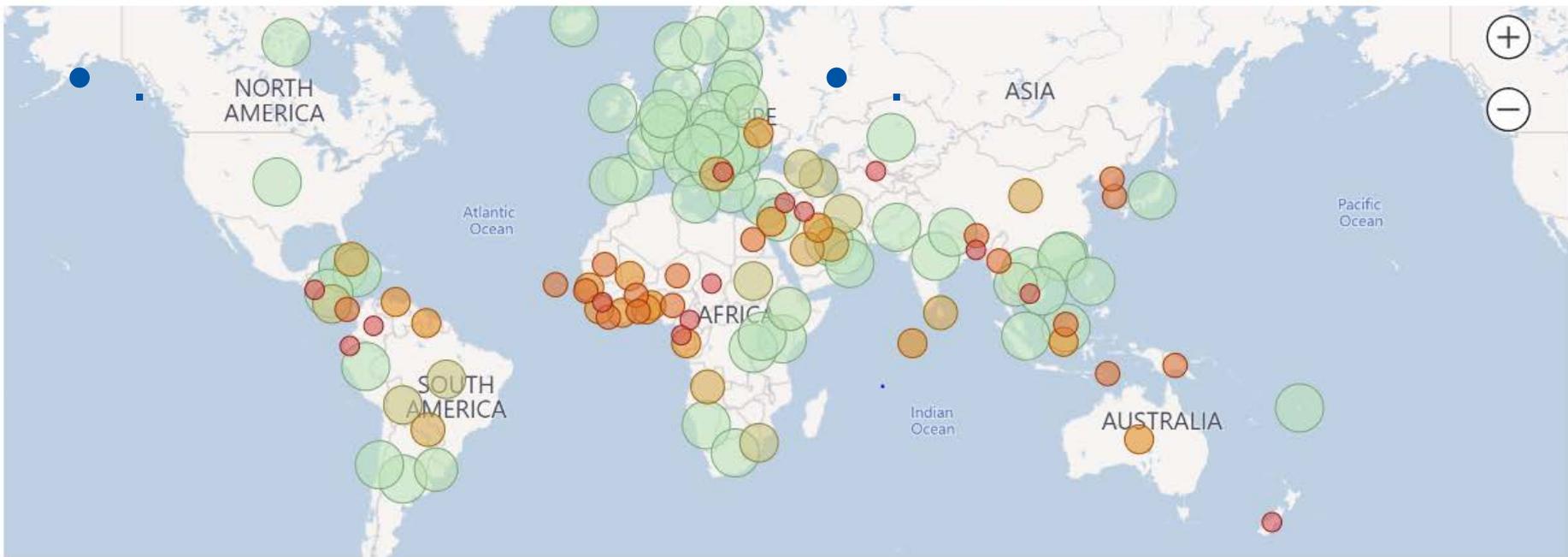
All

All



0%

100%





ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU