International Civil Aviation Organization (ICAO)
South American Regional Office (SAM)
ICAO/ACI-LAC Regional Seminar on GRF for Runway Conditions
Lima, Peru 21-22 August, 2019

SUMMARY OF DISCUSSIONS FROM THE ICAO-ACI LAC REGIONAL SEMINAR ON GLOBAL REPORTING FORMAT FOR RUNWAY CONDITIONS

(Presented by the Secretariat)

SUMMARY

This paper lists the outcomes from the first ICAO-ACI LAC Regional Seminar on Global Reporting Format for Runway Conditions held at ICAO's SAM Regional Office at Lima, Peru, on August 21-22, 2019

ICAO strategic objectives	*This paper is related to the following strategic objectives:* *A - SAFETY*

1 Background

1.1 Runway safety-related accidents and incidents are aviation's number one safety-related risk category, with 59 reported accidents in 2016, of which more than half were due to runway excursions, according to ICAO iSTARS data

1.2 A runway excursion is defined as a "veer off or overrun of the runway surface", which can happen during landing or take off. One main contributing factor involves adverse weather that results in the runway surface being contaminated by snow, ice, slush or water, with a potentially negative impact on an aircraft's braking, acceleration or controllability.

1.3 To help mitigate the risk of excursion ICAO has developed a harmonized methodology for the assessing and reporting of runway surface conditions. This methodology, known as the Global Reporting Format (GRF), will be globally applicable from November 2020, with deployment activities now underway.

1.4 This activity is part of the deployment, awareness and training strategy established by ICAO to raise awareness of States and Aerodrome Operators on this provision. After the global event held at ICAO Headquarters on March 2019 (https://www.icao.int/Meetings/grf2019/Pages/default.aspx), the SAM Region organized a follow up event with particular focus on "Wet" conditions, meaning that the usual winter conditions (snow, ice, slush, etc.) will not be discussed, as most of SAM Region aerodromes are under just wet conditions. The focus of the event also was to deliver a simple, yet complete message of the need to implement the provisions.

2 Attendance

2.1 The Seminar and Workshop was attended by 46 participants from 11 States, 7 Aerodrome operators, and with the participation of speakers from Norway CAA (Rapporteur of the ICAO Friction Task

Force), ICAO SAM Regional Office, ACI-LAC, GAP Airports, Airbus, CANSO, the Federal Aviation Administration (FAA US), IFALPA, ANAC Brazil, and the Brazilian Civil Aviation Secretariat (SAC).

3 Agenda

3.1 The agenda was divided in the following presentations:

a. Overview of GRF – A Total System Approach
b. Regional Documentation
c. RCAM development/background
d. Assessment of runway surface conditions
e. Turbojet Braking Performance on Wet Runways (SAFO 19003)
f. ATC & AIM Aspects (communications)
g. A SAM State experience: Brazil
h. Implementation Challenges (Panel)
i. Training requirements and resources (Panel)
j. Exercise/Workshop

3.2 The work programme and the presentations delivered during the Seminar are available at the ICAO SAM Regional Office website: https://www.icao.int/SAM/Pages/MeetingsDocumentation.aspx?m=2019-GRF

4 Objectives

4.1 The main objective of the regional seminar was to ensure awareness and knowledge of the Runway Global Reporting Format (GRF) for Runway Surface Condition in preparation for its deployment by States, in particular to ensure that there is an understanding of associated ICAO SARPs and guidance material amongst stakeholders.

4.2 In addition, another objective was for the audience to agree on “next steps” regarding at the regional and local levels.

5 Summary of discussions and outcomes

5.1 The activity had a workshop in which all participants engage in several exercises in order to come up with regional initiatives that support on a collaborative way the challenges of implementing this provision in several States in the Region.

5.2 Based on the discussions, the following information was consolidated by the facilitators:

5.2.1 The importance of training were addressed, exemplified and practiced through the workshop with examples applying the new global reporting format as a central part of the Seminar. All participants took part in this workshop. The outcome showed that the participants understood the core principles of the global reporting format. The participants expressed that during the seminar and workshop they had learned a lot. The results achieved form a good basis for a successful implementation.

5.2.2 Generally, there is a challenge when implementing new reporting formats and associated procedures that the ‘new and unknown’ represent a barrier that is ‘uncomfortable/unsafe’. At the seminar

this surfaced related to measurements versus assessment. Measurements were perceived as objective, while assessments were perceived as subjective. This was clarified during the seminar as the assessments asked for in the new global reporting format should meet the requirements for accuracy/uncertainty as expressed and asked for in the procures, and that measurements are additional information that need to be assessed and applied to parts of the runway from which they were gathered. This aspect will be an important one when implementing the global reporting format as participants tend to apply accuracy/uncertainty not asked for and by so doing complicate and confuse the implementation process.

5.2.3 The above also involve the belief that there is a need for high technology (high cost) measuring equipment (that does not exist). While the fact is that the most important instrument is the human eye. Simple low cost tools used as part of the maintenance can achieve the measurements that are needed. The operational aspect of this, in case of sub-standard portions of the runway are communicated through NOTAMS. This measured and communicated information is then a known fact that simplifies the assessment process.

5.2.4 Similarly, it is of importance that the service providers (AIM/AIS, ATM/ATS) disseminating the Runway Condition Report (RCR) understand that the information in the RCR shall be disseminated to the end users with full integrity intact. This was clarified during the seminar and a few items that could cause complication and confusion were addressed. Further that the Aerodrome operator as part their SMS systems need to assure that formal working arrangements are in place with the involved service providers.

5.2.5 Similarly, it is of importance that a working arrangements are in place for the MET services needed for the assessment process leading up to RCR.

5.2.6 The information in the RCR originates at the aerodrome and is the aerodrome operator that needs to have the overall responsibility of the RCR creation and dissemination and assure that all working arrangements needed are in place and maintained.

5.3 As part of the activities, also the participants and facilitators analyzed a proposed GRF implementation checklist, originally created by the GRF Implementation Workshop held at ICAO European Regional Office (Paris). On this matter, the group agree on the need to elaborate further the implementation checklist, so that States have a roadmap to support implementation. The ICAO Regional Office was given the task to update the plan and disseminate thru its website. A copy of this checklist is attached as appendix B.

6 Conclusion

6.1 With all the groups' inputs, the ICAO SAM Regional Office will be working towards the implementation checklist that will serve as a roadmap for States to implement the provision. This checklist will be available at the event's website https://www.icao.int/SAM/Pages/MeetingsDocumentation.aspx?m=2019-GRF.

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List of appendices

Appendix A – List of participants

Appendix B – GRF Implementation Checklist

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Appendix A – List of participants

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Appendix B – GRF Implementation Checklist

ID	TASK	WHO	Remarks
GRF 1	**Establish a *National GRF implementation team*** at the State Level	State GRF implementation team to include: - CAA (*responsible entity for implementation*) - Aerodromes - ANSP (ATM/AIM/MET) - Airlines/Flight Ops - Any other relevant stakeholder, as required	*As part of the State Plan, tasks to develop local GRF implementation teams may be given to Local RST's at each airport.*
GRF 1-1	**Develop a *National GRF Implementation Plan***, detailing tasks, champions and timelines	State GRF implementation team	
GRF 2	**Educate** by reviewing the following **documentation**: - PANS Aerodromes (Doc 9981) - ICAO Circular 355 - Annex 14 Vol I. - ICAO GRF global Symposium presentations https://www.icao.int/Meetings/grf2019 - ICAO Doc 10064 - Other relevant ICAO provisions – consequential amendments due to GRF (e.g. PANS-AIM, PANS-ATM, etc.) **Educate** by **attending**: - ICAO Regional Workshops (GRF Workshop (Lima)) - SRVSOP Regional Workshop (Lima, March 2020) **Educate** by **conducting**: - State Level Workshops/Seminars	State GRF implementation team - In coordination with national bodies representing airports, ANSPs, Airlines	*Advise difficulties to ICAO SAM Office*
GRF 3	**Promote** GRF at the national level in context of safety by developing: - brochures - website material / videos - AIC (Aeronautical Information Circular)	State GRF implementation team - distribution should also include GA/BA and Military	Video presented by ANAC Brasil is available at: https://www.anac.gov.br/rcc
GRF 4	**Train relevant stakeholders on GRF** Note that different stakeholders may have different training needs (e.g. aerodromes, pilots, ATS, AIS, aerodromes in warm climates vs. operators that fly to locations with winter conditions, etc.)	Relevant stakeholders: - ACI - IATA - IFATCA - IFALPA	Online training (ICAO/ACI) available at https://www.olc.aero

ID	TASK	WHO	Remarks
	Train relevant groups that interface with customers on GRF so they can brief their customers when on audit/inspections	State GRF implementation team assures training for: - ADR/ATM - CAA/FO inspectors	
GRF 5	**Update SNOWTAM Format/template (NOTAM/SNOWTAM systems)**	State GRF implementation team assures SNOWTAM template is updated by: - AIM	
GRF 6	**Train on the new SNOWTAM Format**	State GRF implementation team assures training on SNOWTAM format by: - AIM - Aerodrome Operator	
GRF 7	**Update AIP**, as required	State GRF implementation team assures AIP is updated by: - AIM	
GRF 8	**Conduct parallel test of GRF** **Conduct analysis** using archives of SNOWTAM & AIREPS (this should also be considered after implementation to identify errors)	State GRF implementation team coordinates parallel test with the necessary stakeholders: - Airport operators - ANSP - Regional CAA - Airlines - AIS	

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