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Implementation of the Global Reporting Format (GRF) in the Republic of Croatia

1. INTRODUCTION:

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.

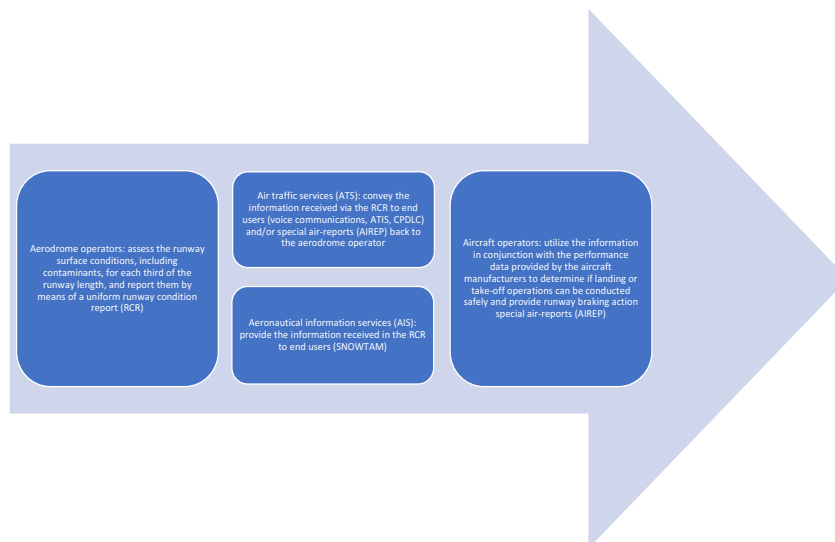
The GRF implementation planning activities in the Republic of Croatia are encompassing the work of an interdisciplinary group of experts responsible for the processes and standards as described in amendment 13-B to Annex 14 - *Aerodromes, Volume I - Aerodrome Design and Operations*; Annex 3 - *Meteorological 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, ICAO provided additional supporting material in Circular 355, *Assessment, Measurement and Reporting of Runway Surface Conditions* and in the Doc 10064 *Aeroplane Performance Manual*.

EASA has developed amendments to existing requirements of Commission Regulation (EU) No 139/2014 (*Commission delegated regulation (EU) 2020/2148*), Commission Regulation (EU) No 2017/373 (*Commission Implementing Regulation (EU) 2020/469*, *Commission Implementing Regulation (EU) 2020/1177*), Commission Regulation (EU) No 965/2012 (*Commission Implementing Regulation (EU) 2019/1387*, *Commission Implementing Regulation (EU) 2020/1176*) and Commission Regulation (EU) No 923/2012 (*Commission Implementing Regulation (EU) 2020/469*, *Commission Implementing Regulation (EU) 2020/1177*), which are based on above listed ICAO provisions.

Due to the COVID-19 pandemic, ICAO postponed the implementation date from 05th November 2020 to 04th November 2021, while in the European Union it has been decided to implement GRF as of 12th August 2021.

2. FLOW OF INFORMATION:



2.1 Collection of information:

Referring to applicability date under item 3.1 below, *aerodrome operators* listed under item 3.4 below will be 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 Runway Condition Code (RWYCC) 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) provided in the table below and associated procedures for downgrading and upgrading. The RCAM and the procedures are currently prescribed in AMC1 ADR.OPS.B.037(a) of Draft AMC&GM to ADR ([for info only](https://www.easa.europa.eu/sites/default/files/dfu/Draft%20AMC%20%26%20GM%20to%20ADR.pdf)) (<https://www.easa.europa.eu/sites/default/files/dfu/Draft%20AMC%20%26%20GM%20to%20ADR.pdf>), related to [Opinion 03/2019](https://www.easa.europa.eu/document-library/opinions/opinion-032019). (<https://www.easa.europa.eu/document-library/opinions/opinion-032019>).

Runway condition assessment matrix (RCAM)			
Assessment criteria		Downgrade assessment criteria	
RWYCC	Runway surface description	Aeroplane deceleration or directional control observation	Special air-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 3mm depth) Up to and including 3 mm depth: -SLUSH -DRY SNOW -WET SNOW	Braking deceleration is normal for the wheel braking effort AND directional control is normal	GOOD
4	-SPECIALLY PREPARED WINTER RUNWAY -15°C and lower outside temperature -COMPACTED SNOW	Braking deceleration OR directional control is between good and medium	GOOD TO MEDIUM
3	-SLIPPERY WET -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: -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: -STANDING WATER -SLUSH	Braking deceleration OR directional control is between medium and poor	MEDIUM TO POOR
1	-ICE	Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced	POOR
0	-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:

The AIM/AIS department of Croatia Control Ltd. will provide the information, requested from the aerodrome operators and based on RCR, to end users through SNOWTAM in the new format, as prescribed in point 6: Appendix 3 'SNOWTAM FORMAT' of the Commission Implementing Regulation (EU) 2020/469 and additionally in the Procedures for Air Navigation Services (PANS) - Aeronautical Information Management (PANS-AIM, Doc 10066) and ICAO EUR/NAT Guidance on the Issuance of SNOWTAM.

Air traffic services (ATS) of Croatia Control Ltd. will provide the information received via the RCR to pilots by radio or ATIS. Furthermore, ATS will relay AIREP received from pilots to the aerodrome operator for possible new assessment. Procedures are prescribed in Commission Implementing Regulation (EU) No 923/2012 (Commission Implementing Regulation (EU) 2020/469, Commission Implementing Regulation (EU) 2020/1177) and additionally in the Procedures for Air Navigation Services (PANS) - Air Traffic Management (PANS-ATM, Doc 4444) and ICAO EUR/NAT Guidance on the Issuance of SNOWTAM.

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).

Requirements are prescribed in the Commission Regulation (EU) No 965/2012 (Commission Implementing Regulation (EU) 2019/1387, Commission Implementing Regulation (EU) 2020/1176) and Commission implementing regulation (EU) No 923/2012 (Commission Implementing Regulation (EU) 2020/469, Commission Implementing Regulation (EU) 2020/1177). Additional guidance is provided in the Aeroplane Performance Manual (Doc 10064).

3. IMPLEMENTATION INFORMATION:

Date of implementation

3.1 The new ICAO GRF including the new SNOWTAM format will be implemented in *the Republic of Croatia on 12th August 2021 at 0000 UTC.*

3.2. Detailed activities of the National GRF Implementation Plan of the Republic of Croatia are provided in Item 4 of this AIC.

National GRF implementation Team

3.3. The National GRF implementation team was formed by the Croatian Civil Aviation Agency with the purpose to organize and synchronize all the planning activities regarding the GRF implementation. The team is composed of six aerodrome operators, air navigation service provider and two national airlines representatives.

Stakeholders involved

3.4. The following stakeholders in the Republic of Croatia are involved in the implementation of the GRF:

- Aerodromes:
 - Airport DUBROVNIK/Čilipi
 - Airfield LOŠINJ/Lošinj I.
 - Airport OSIJEK/Klisa
 - Airport PULA/Pula
 - Airport RIJEKA/Krk I.
 - Airfield BRAČ/Brač I.
 - Airport SPLIT/Kaštela
 - Airport ZAGREB/Franjo Tuđman
 - Airport ZADAR/Zemunik
- Croatia Control Ltd.: Air Traffic Services (Air Traffic Controllers - ATCOs)
- Croatia Control Ltd.: AIS provider, AIM/AIS Department/International NOTAM Office
- Airlines (flight operations departments, dispatchers, pilots)
- Civil Aviation Authority

Coordination between aerodromes, AIS (NOF) and ATS units

3.5. The National GRF implementation team is a platform for overall coordination and Croatia Control Ltd is running the project for the implementation of New SNOWTAM which contains explicit coordination activities between aerodromes, ATS and AIM/AIS. Coordination activities between aerodrome operators and ATS and AIS providers are established and thoroughly described through formal arrangements. There are separate formal arrangements between AIS provider and aerodrome operators (AO) that contain the process and procedures for raw data submission by AO and aeronautical information provision by AIS provider as well as all the points of contacts that will be applicable to the new SNOWTAM format. There are also formal arrangements between ATS and AO which prescribe coordination activities and exchange of information between aerodrome operators and ATS at the airport.

Training and awareness

3.6. Training and awareness on GRF activities and new SNOWTAM format are part of the activities planned through Implementation plan under item 4. Also, the Croatia Control Limited's (CCL) New SNOWTAM implementation project predicted tasks which encompass AIM/AIS, ATS and MET domains as well as numerous supporting functions, and cater for transverse promotion and awareness activities regarding the implementation. Education is predicted through promulgation of regulations and guidelines (ICAO, EASA, national) and awareness raising by organizing national workshops. Approved Training Organisations (ATO-s), Declared Training Organizations (DTO-s), General Aviation (GA), Business Aviation (BA) and military are planned to be included. Training (training plan, manuals, appointed instructors, syllabus) will be provided in each organization according to available regulations, customized for CCAA inspectors, aerodrome personnel, pilots, dispatchers, ATS/AIS, and/or climate conditions and type of training (theoretical, practical, initial, recurrent).

Tests and trials

3.7. Tests are planned to be conducted after training and before applicability date as provided in the Implementation plan under item 4. It involves local operators and ANSP.

Other information

3.8. In case of any questions regarding the implementation of the GRF in the Republic of Croatia, please contact:

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4. NATIONAL GRF IMPLEMENTATION PLAN:

Task No.	Task description	Who	How	When	Details
1.	Appoint focal point (FP) in CAA	CCAA		Until 28.02.2020.	
2.	Train FP on GRF	CCAA	On line training	Until 01.05.2020.	
3.	Establish CCAA GRF team	FP	Include from CCAA, at least: - Aerodrome inspector - ATM/ANS inspector - Flight operation (FO) inspector (+Safety Assessment of Foreign Aircraft (SAFA) / Safety Assessment of Community Aircraft (SACA) / Safety Assessment of National Aircraft (SANA) inspector)	Until 01.09.2020.	- Appointed CAA inspectors will be in charge for their domains. - Ensure that team members are made aware of requirements laid down in relevant regulations and documents. - Recognize interested stakeholders for State GRF team. - Propose implementation plan.
4.	Establish State GRF implementation team: - CAA - Aerodromes - ATS (ATCOs) - AIS (International NOTAM Office) - MET personnel - National aircraft operator (flight operations departments, dispatchers, pilots)	CAA FP	- Forward all relevant information regarding GRF to team members (regulation amendments, information about seminars, workshops, trainings, related documents,...) - Conduct meetings and workshops (could be internal or/ and on line)	- Establish State team until 01.10.2021. - Kick-off meeting until 04.11.2020. - 2. Meeting until 31.12.2020. - 3. meeting until July 2021.	Relevant regulations and documents: - ICAO Circular 355 - Annex 14 (and Annexes 3, 6 (I and II), 8, 15) - PANS Aerodromes (Doc 9981) - PANS ATM (Doc 4444) - PANS AIM (Doc 10066) - Aeroplane Performance Manual - APM (Doc 10064) - EUR Guidance on SNOWTAM - ICAO GRF webpage - Commission delegated regulation (EU) 2020/2148 - Opinion 03/2019 - DRAFT COMMISSION DELEGATED REGULATION (EU) .../... amending Commission Regulation (EU) No 139/2014 - DRAFT ANNEX to DRAFT COMMISSION DELEGATED REGULATION (EU) .../... amending Commission Regulation (EU) No 139/2014 - Draft AMC & GM to ADR - Draft CS ADR-DSN - Commission Implementing Regulation (EU) 2020/469 - Commission Implementing Regulation (EU) 2019/1387 - Commission Implementing Regulation (EU) 2020/1176 - Commission Implementing Regulation (EU) 2020/1177
5.	Establish State implementation plan	State GRF implementation team	CAA GRF team proposes the plan, other members fill in details in accordance with specific organisational requirements and tasks.	Plan established until 31.12.2020.	

Task No.	Task description	Who	How	When	Details
6.	Promote/raise awareness	State GRF implementation team	- Print or publish online (CAA, AD, ANSP webpage) leaflets and/or brochures about the GRF and the new SNOWTAM format - Conduct workshops - Inform of regional workshops/seminars (EASA, ICAO)	- Leaflets and/or brochures until March 2021. - 1. workshop until the end of March 2021. - 2. workshop until July 2021.	Ensure Approved Training Organisations (ATO-s), DTOs, national General & Business Aviation (via Webpage publications and e-mails) and Military (via Board for civil-military relationship) are also included in the communications. Workshops can be divided according to domains: aerodromes, ATM/ANS, users.
7.	Update State's regulatory framework	CCAA	Updating National regulations (transposition of ICAO provisions to the national regulations) – filing in differences/ publishing significant differences in AIP (if required)	Until July 2021.	- National Ordinance on aerodromes - ASO?
8.	Update of procedures/ documents	- CCAA - AD - ATS - AIS - MET - Airlines		- CCAA: 06/2021. - Aerodromes: 08/2021. - ATS/AIS: 08/2021. - National aircraft operator representatives: 03/2021.	
9.	Train relevant stakeholders on GRF and SNOWTAM (as appropriate)	- CCAA - AD - ATS - AIS - MET - Airlines		- CCAA: 03/2021. - Aerodromes: 06/2021. - ATS/AIS: 08/2021. - National aircraft operator representatives: 03/2021.	
10.	Update SNOWTAM format	-AIS -AD	Preparation for upgrade Upgrade	Until 01.08.2021. Until 12.08.2021.	
11.	Update SLA between aerodromes, ATS and AIS	- AD - ATS - AIS		03.05.2021. draft 02.08.2021. final	Mechanisms and processes of coordination between aerodromes, ATS and AIS, point of contacts, etc
12.	Update AIP	- CCAA - AIS		Until July 2021.	CCAA: differences AIS: AIC (a summary of the implementation process and mechanisms)
13.	Conduct parallel tests Conduct analysis using archives of SNOWTAM & AIREPS	State GRF implementation team	Coordination of parallel test with: - Airport operators - ANSP - CCAA - Airlines - AIS	March until May 2021.	Testing plan: organizations, training, period, data gathering, data analysis
14.	Apply			12.08.2021.	

Task No.	Task description	Who	How	When	Details
15.	Conduct oversight of the implementation of regulations	CCAA inspectors	CAA inspectors for: -Aerodromes - ATM/ANS - FO - SAFA/SACA/SANA	Continuously after 12.08.2021.	

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