Global Reporting Format (GRF)

10 November 2020

ICAO EUR/NAT Regional Initiatives

RD Brief

ICAO

I. WELCOME

Runway Safety (RS) is a global safety priority together with LOC-I (Loss of control in flight) and CFIT (Controlled flight into terrain), which has demonstrated the highest risk category. Poor braking action has also been a top contributory factor to runway excursions for decades. Runway surface conditions have contributed to many safety events and investigations which revealed shortfalls in the accuracy and timeliness of assessment and reporting methods currently provided for in ICAO provisions and guidance material.

Overrun characteristics are typically caused by more than one factor, but may include runway contamination that reduces friction causing a longer landing distance.

In order to mitigate these potential safety risks, ICAO through the ICAO Friction Task Force (10 member States and 7 international organizations) has introduced the new Global Reporting Format (GRF) for Runway Surface Conditions in 2016, now applicable 4 November 2021. This will allow enough time to implement GRF provisions such as the development of a national GRF implementation plan that requires time and coordination amongst all the stakeholders.

I welcome you to read the details of the new reporting format through these pages.

Enjoy your reading,

Silvia Gehrer

II. What is GRF?

The Global Reporting Format is the new ICAO methodology for assessing and reporting runway surface conditions, which enables the harmonized assessment and reporting of runway surface conditions and a correspondingly improved flight crew assessment of take-off and landing performance.

The implementation is expected to reduce the risk of runway excursions since the GRF improves the accuracy and timeliness of runway condition assessment and harmonizes this information globally.
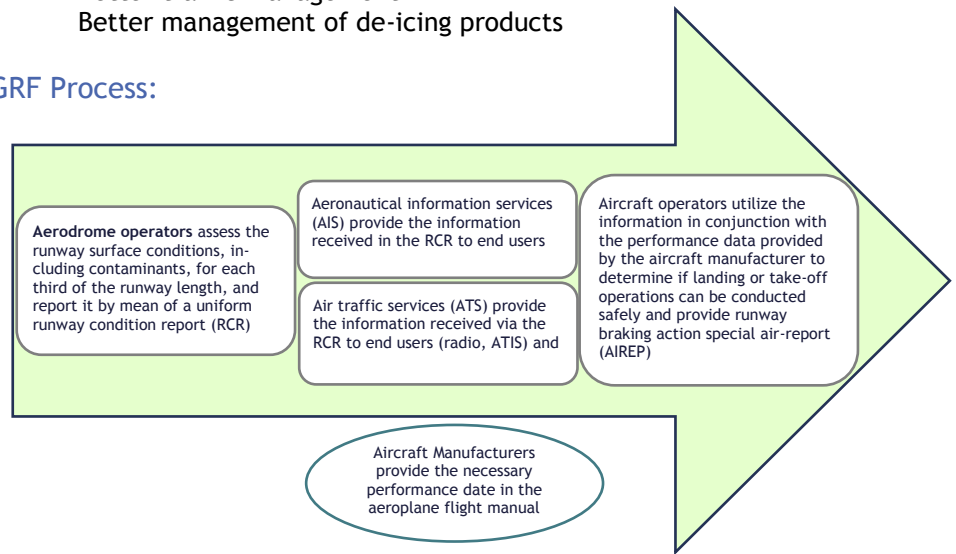
Applicability Date

In response to the on-going COVID-19 pandemic and the associated challenges facing the aviation industry, ICAO has delayed the applicability date of GRF from 5 November 2020 to **4 November 2021**.

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

GRF Process:

Aerodrome operators assess the runway surface conditions, including contaminants, for each third of the runway length, and report it by mean of a uniform runway condition report (RCR)

Aeronautical information services (AIS) provide the information received in the RCR to end users

Air traffic services (ATS) provide the information received via the RCR to end users (radio, ATIS) and

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)

Aircraft Manufacturers provide the necessary performance date in the aeroplane flight manual

III. GRF Implementation Support

ICAO Provisions on GRF

The GRF is described through:

- 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

- Annex 8 – Airworthiness of Aircraft

- Annex 14 – Aerodromes, Volume I – Aerodrome Design and Operations (Amendment 13-B)

- Annex 15 – Aeronautical Information Services

- PANS - Aerodromes (PANS-Aerodromes, Doc 9981)

- PANS - Aeronautical Information Management (PANS-AIM, Doc 10066)

- PANS - Air Traffic Management (PANS-ATM, Doc 4444) and

- Circular 355, Assessment, Measurement and Reporting of Runway Surface Conditions

- Doc 10064, Aeroplane Performance Manual

Stakeholders' roles in the GRF implementation

ICAO: develops SARPs, PANS, guidance material (including training guidance), support to States
States: Ensure awareness, training and deployment
International Organizations: Provide training, support awareness efforts, support deployment
Airports: Support local deployment, training
Airlines: Support deployment, training
Industry: Provides training support, tools

Challenges in GRF implementation

- Implementation by all airports around the world
   Complex set of stakeholders
   Language, culture, 'distance'
- 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 SNOWTAM systems

ICAO EUR/NAT activities to support GRF implementation

1. Workshops and webinars:
As a follow-up to the Global Symposium on GRF implementation (Montréal, 26 – 28 March 2019), ICAO EUR/NAT Office conducted a series of workshops and webinars in support of GRF implementation in the EUR/NAT Regions:

- Paris, 10-11 July 2019
- Frankfurt, 10-11 December 2019
- Madrid (IATA/ICAO joint event), 21-22 January 2020
- Helsinki, 28-29 January 2020
- SNOWTAM webinar, 28 May 2020

All documentation for these workshops and webinars conducted by ICAO EUR/NAT Office as well as other workshops held by other ICAO Regions can be found on the ICAO GRF website at: https://www.icao.int/safety/Pages/GRF.aspx

This ICAO GRF website also contains the following information:

- Training courses for various target audiences (airport operations staff, flight crew and airline operations staff, airport personnel and soon to be available for ANSPs, ATC and AIS staff)
- GRF brochure
- GRF implementation checklist

- Articles and presentations
- Guidance on the issuance of SNOWTAM, and
- Implementation map that is expected to be populated in the future.

2. GRF implementation checklist:
ICAO EUR/NAT in collaboration with States and International Organizations developed a checklist template for GRF implementation. The GRF implementation checklist can be accessed on the ICAO GRF website.

3. EUR Guidance on the issuance of SNOWTAM:
The Guidance document has been prepared by the ICAO EUR/NAT Office in collaboration with the EUROCONTROL (AIM/SWIM Team and EAD) to provide explanation and examples for issuing SNOWTAM in the new format. The SNOWTAM Guidance can be found on the ICAO GRF website.

IV. EUR/NAT Training, Workshops & Webinars

The EUR/NAT Office is planning a GRF workshop mid 2021.

EUR/NAT events schedule click here

V. THE EUR/NAT Team

The contributors for this issue are:

Christopher Keohan, Regional Officer, Meteorology

Abbas Niknejad. Regional Officer, Air Navigation

The next RD Brief will be issued on 24 November 2020.

The focus will be on ICAO and Innovation