



ICAO

**SIXTEENTH MEETING OF THE ASIA PACIFIC REGIONAL
AVIATION SAFETY TEAM (APRAST/16)**

Bangkok, Thailand, 17 to 18 March 2021 on Virtual Platform

APRAST/16-WP/8

Agenda Item 5

Agenda Item 5: Presentations – State / Industry / ICAO

**NEW GLOBAL REPORTING FORMAT FOR RUNWAY SURFACE CONDITIONS (GRF)
AND RUNWAY SAFETY TEAM (RST)**

(Presented by Secretariat)

SUMMARY

This paper presents ICAO provisions related to GRF, activities to enhance GRF awareness and understanding, relevant training courses and a template to assist States to develop an implementation action plan of GRF. This paper also puts emphasis on the importance of RST, which plays a crucial role in GRF implementation.

1. INTRODUCTION

1.1 Runway excursions remain one of the top challenges to aviation, with a significant impact in terms of safety and cost. High on the list of runway excursion-related risks is that associated with effective braking, the assessment and reporting of which is addressed by ICAO through GRF. This new methodology has at its core a Runway Condition Assessment Matrix (RCAM) that enables:

- a) the harmonized assessment and reporting of runway surface conditions; and
- b) flight crew assessment of take-off and landing performance based upon the reported runway surface conditions.

1.2 The SARPs and PANS related to GRF was originally set to become applicable on 5 November 2020. To alleviate the burden on Member States during, and in the aftermath of, the COVID-19 pandemic, the Council, adopted amendments on the postponement of the applicability date, from 5 November 2020 to 4 November 2021, for provisions related to GRF as contained in Annexes and Procedures for Air Navigation Services (PANS).

1.3 A key aspect of the GRF is the scope of its impact, which includes multiple ICAO provisions with details in the ensuing paragraphs, multiple stakeholders and States.

2. DISCUSSION

SARPs and PANS related to GRF

2.1 The SARPs and PANS related to GRF was originally set to become applicable on 5 November 2020. However, to alleviate the burden on Member States during, and in the aftermath of, the COVID-19 pandemic, as promulgated in State Letter Ref. AN 10/1.1, AN 11/1.3.33, AN 11/6.3.32, AN 3/5.13, AN 4/1.2.29, AN 2/2.7, AN 13/2.1, AN 4/27 and AN 2/33-20/73 dated 30 July 2020 (“the

State Letter”), the Council, at the eighth meeting of its 220th Session held on 19 June 2020, adopted amendments on the postponement of the applicability date, from 5 November 2020 to 4 November 2021, for provisions related to GRF. The concerned Annexes and Procedures for Air Navigation Services (PANS) are:

- a) Annex 3 – *Meteorological Service for International Air Navigation*;
- b) Annex 6 – *Operation of Aircraft, Part I – International Commercial Air Transport – Aeroplanes* and Part II – *International General Aviation – Aeroplanes*;
- c) Annex 8 – *Airworthiness of Aircraft*;
- d) Annex 14 – *Aerodromes, Volume I – Aerodrome Design and Operations*;
- e) Annex 15 – *Aeronautical Information Services*;
- f) *Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444)*;
- g) *Procedures for Air Navigation Services – Aerodromes (PANS-Aerodromes, Doc 9881)*; and
- h) *Procedures for Air Navigation Services – Aeronautical Information Management (PANS-AIM, Doc 10066)*.

2.2 It was noted that such a postponement would also help ensure a uniform implementation of the GRF-related provisions on a global basis.

2.3 States have been requested to notify any disapproval of all or part of the Amendments to the Annexes by 30 September 2020. In addition, States are requested to inform ICAO HQ, with a copy to ICAO APAC Office, before 4 October 2021:

- a) any differences that will exist on 4 November 2021 between the national regulations or practices and the provisions of the aforementioned Annexes, as amended by all amendments up to and including the Amendments contained in *the State Letter*, and thereafter of any further differences that may arise; and
- b) the date or dates by which States will have complied with the provisions of the whole of the aforementioned Annexes, as amended by all amendments up to and including the Amendments contained in *the State Letter*.

2.4 States are also requested to implement the provisions in PANS-ATM, PANS-Aerodromes and PANS-AIM on 4 November 2021, and to publish in the AIPs a list of any significant differences which will exist on 4 November 2021 between the provisions of PANS-ATM, PANS-Aerodromes and PANS-AIM and the national regulations and practices.

GRF Seminars, Webinars and Workshops

2.5 The applicability of GRF-related SARPs and PANS will impact all major stakeholders in the aviation industry, such as Civil Aviation Authorities (CAAs), airport operators, airlines and air navigation service providers. In order to enhance awareness and understanding of GRF, ICAO APAC Office and COSCAP-SEA jointly organised a regional seminar on implementation of GRF on 27 – 28 June 2019, back-to-back with the Third Meeting of the Aerodromes Operations and Planning Sub-Group (AOP/SG/3, Bangkok, Thailand, 24 – 26 June 2019).

2.6 Further GRF activities were held in 2020 with details as follows. Information and replays of some of the activities are available in the respective links.

Date	Activity	Organised by	Link
28-29 January 2020	GRF Regional Workshop	ICAO EUR/NAT Office	Webpage
30 April 2020	GRF Workshop	COSCAP-SEA	Replay
21 May 2020	GRF Regional Webinar	ICAO APAC Office	Webpage
26 May 2020	GRF Webinar	ICAO Air Navigation Bureau	Replay; Q&A
28 May 2020	SNOWTAM Webinar	ICAO Air Navigation Bureau	Replay; Q&A
18 June 2020	GRF Regional Webinar	ICAO CAR/SAM Office	Webpage
22 July 2020	GRF Webinar	COSCAP-SA	Webpage
27 October 2020	GRF Regional Webinar	ICAO MID Office	Replay

2.7 In addition to above activities on GRF, Pacific Aviation Safety Office (PASO) also organised a GRF Webinar on 25 June 2020, which was attended by 35 participants from 8 Small Pacific Island States.

2.8 ICAO APAC Office is planning for further GRF activities in the third or fourth quarter of 2021, ahead of the applicability date of 4 November 2021. Details will be announced through State Letter as the time approaches.

GRF Training Courses

2.9 In addition to seminars, webinars and workshops, ICAO collaborated with industry partners and developed a number of GRF courses, tailored to meet the needs of various aviation professions. Details are summarised as follows.

Course	Target Audience	Delivery Mode	Link
ICAO-ACI GRF Online Course	Airport operations staff	Online	Webpage
ICAO-IATA GRF Online Course	Flight crew, airline operations staff and dispatchers	Online	Webpage
ACI GRF for Runway Surface Condition Assessment and Reporting	Airport personnel	Classroom / Virtual Classroom	Webpage
ICAO-IATA-CANSO Introduction to GRF for ANSPs, Air Traffic Controllers and AIS Staff	ANSPs, Air Traffic Controllers and AIS staff	Coming Soon, to be confirmed	--

2.10 In 2020, the three COSCAPs provided sponsored places for staff of member CAAs to attend ICAO-ACI GRF Online Course and ICAO-IATA GRF Online Course, so as to equip them with the necessary knowledge for the planning, coordinating and supporting of the implementation of GRF-related SARPs and PANS.

GRF Implementation Action Plan Template

2.11 In order to assist States in tracking the implementation progress of GRF-related provisions, based on a template developed by COSCAP-SEA earlier, ICAO APAC Office prepared a GRF Implementation Action Plan Template. The template is available through this [link](#). Alternatively, it may be downloaded from ICAO APAC Website through *eDocuments* and *AGA*:

<https://www.icao.int/APAC/Pages/eDocs.aspx>

2.12 The template identified 15 action items and a number of action parties to facilitate States in their preparation for GRF implementation. Target dates for each action items have also been set, which States may take reference when determining their own implementation dates.

2.13 To maximize the benefits brought by the template, APANPIRG/31 (video teleconference, 14 – 16 December 2020) adopted the following Conclusion:

Conclusion APANPIRG/31/5 (AOP/SG/4–10): GRF Implementation Action Plan Template

That,

a) The GRF Implementation Action Plan Template contained in **Appendix B** to Report on Agenda Item 3.1 be uploaded to ICAO APAC Website for reference by States / Administrations; and

b) States / Administrations are requested to make reference to the GRF Implementation Action Plan Template and submit their own action plans to ICAO APAC Office by **28 February 2021**.

2.14 As of 2 March 2021, ICAO APAC Office has received GRF Implementation Action Plans from 14 APAC States/Administrations.

Runway Safety Team (RST)

2.15 An aerodrome operator shall establish a Runway Safety Team (RST) comprised of relevant organizations operating or providing services on the aerodrome.

2.16 The terms of reference and composition of the RST should be established and included in the aerodrome manual. Activities to be included in the terms of reference as well as the proposed composition of an RST are included in the Appendix to the Chapter 8 of Part II of PANS-Aerodromes (Doc 9981).

2.17 The primary role of the RST should be to develop a runway safety action plan. This action plan should, as a minimum, facilitate the identification of runway safety hazards and the conduct of runway safety risk assessments and recommend measures for hazard removal and mitigation of the residual risk.

2.18 Detailed information on the establishment of a RST is available in the ICAO RST Handbook which can be downloaded from:

<https://www.icao.int/safety/RunwaySafety/Pages/Documents%20and%20Toolkits.aspx>.

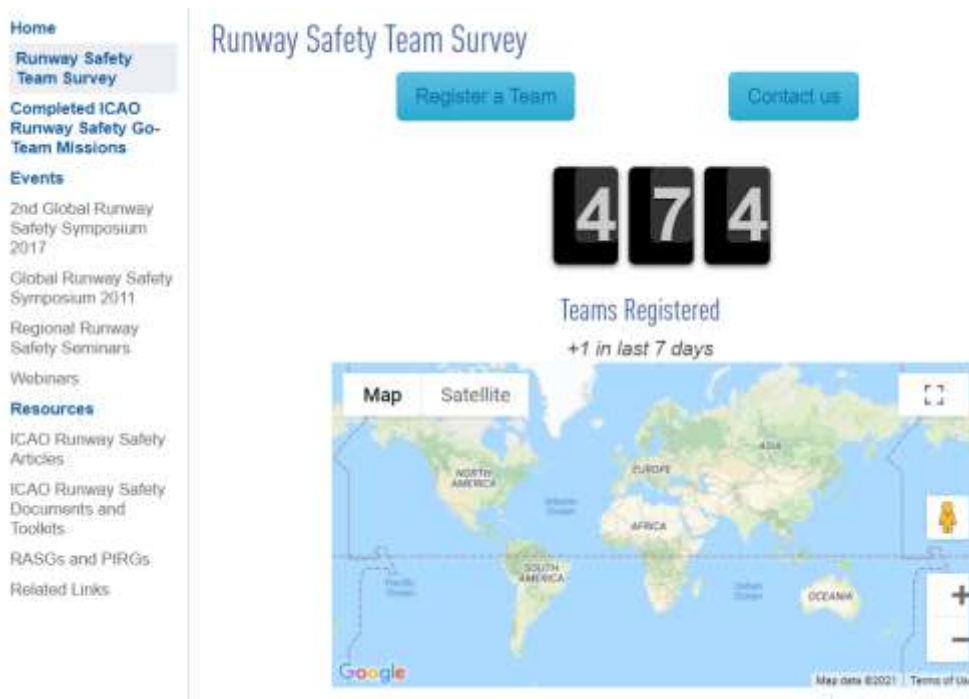
2.19 As indicated in the GRF Implementation Action Plan Template (Para 2.11 – 2.13 refers), RST is a major player in the implementation of GRF, providing feedback to the CAA in such matters as development of national procedures and guidance material, provision of on-the-job training, arrangement of trials prior to implementation, as well as the implementation plan. As such, the establishment and effective running of RSTs will be crucial for States to fine-tune and carry out their GRF implementation action plans.

2.20 During COVID-19 pandemic, aerodromes face substantially different operational environment due to the sharp drop in the amount of air traffic movement. Runway safety may be impacted by a different operational environment, e.g. aircraft parked on runways and taxiways, increased wildlife presence, increase in towing activities associated with parked aircraft, and reduced

headcount of operational personnel. An active and effective RST will be able to perform hazard identifications and safety risk assessments, so that runway safety risks may be mitigated in a timely manner.

2.21 ICAO has been maintaining a RST Survey to keep track of the establishment of RSTs at aerodromes used for international operations. The survey results and questionnaire are available at the following URL:

<https://www.icao.int/safety/RunwaySafety/Pages/Runway%20Safety%20Team%20Register.aspx>



ICAO RST Survey Website

2.22 As of 1 February 2021, out of 342 aerodromes used for international operations in Asia Pacific Regions, only 73 aerodromes have participated in ICAO RST Survey.

2.23 APANPIRG/31 adopted the following Conclusion:

Conclusion APANPIRG/31/6 (AOP/SG/4-11): Runway Safety Team

That, States/Administrations to urge operators of aerodromes used for international operations to:

- a) establish runway safety teams (RSTs) in accordance with PANS-Aerodromes (Doc 9981) and ICAO RST Handbook; and
- b) participate in the ICAO RST Survey to register their RSTs.

2020 Edition of USOAP CMA Protocol Questions

2.24 As announced in Electronic Bulletin 2021/3, the 2020 Edition of the Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) Protocol Questions (PQs) is now posted on the USOAP CMA online framework, under the heading “CMA Library”.

2.25 In association with Chapter 8 of Part II of PANS-Aerodromes and relevant guidance materials, there is a new PQ on whether a State ensures “that aerodrome operators comply with requirements related to runway safety, including the establishment of a runway safety team”. The new PQ is extracted as follows.

8.204	Does the State ensure that aerodrome operators comply with requirements related to runway safety, including the establishment of a runway safety team?	1) Evaluate mechanism to ensure effective implementation. 2) Review evidence of a systematic approach to runway safety and collision avoidance strategy, e.g. establishment of runway safety teams.	PANS Doc 9981 (AGA) Part II, C8 GM A14 Vol. I, Att. A, Section 21.3 Doc 9870 C3	Yes	CE-6
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USOAP CMA PQ – AGA 8.204

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) urge States to note the various GRF activities and arrange attendance of GRF training courses;
- b) urge States to submit GRF Implementation Action Plan to ICAO APAC Office if yet to do so, and provide periodic updates thereafter (**Conclusion APANPIRG/31/5** refers);
- c) urge States to take actions on RST establishment and participation in ICAO RST Survey (**Conclusion APANPIRG/31/6** refers);
- d) note the USOAP CMA PQ related to runway safety and RST; and
- e) discuss any relevant matters as appropriate.
