



ICAO

Fourth Meeting of the Asia/Pacific Aerodrome Assistance
Working Group (AP-AA/WG/4)

Video Teleconference, 14 to 16 March 2022

Agenda Item 4: Runway Safety and GRF Implementation

ENHANCED GLOBAL REPORTING FORMAT FOR ASSESSING AND REPORTING RUNWAY SURFACE CONDITIONS (GRF)

(Presented by the Secretariat)

SUMMARY

This paper presents the updated status of GRF implementation by Asia and Pacific States.

1. INTRODUCTION

1.1 The ICAO SARPs and Procedures for Air Navigation Services (PANS) related to the enhanced Global Reporting Format for assessing and reporting runway surface conditions (GRF) became applicable on 4 November 2021.

1.2 The concerned Annexes and PANSs 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. DISCUSSION

GRF Seminars, Webinars and Workshops

2.1 In order to enhance awareness and support States actions on GRF implementation, a number of seminars, webinars and workshops had been conducted at the global, regional and sub-regional levels by ICAO HQ, ICAO ROs/COSCAPs, PASO and ACI from 2019 to 2021. In addition, the tailored made GRF training courses were jointly offered by ICAO and industry partners to meet the needs of various aviation professions. Detailed information on GRF activities conducted by ICAO can be found at <https://www.icao.int/safety/Pages/GRF.aspx>.

GRF Implementation Action Plan Template

2.2 In order to assist States in tracking the implementation progress of GRF-related provisions, ICAO APAC Office had prepared a GRF Implementation Action Plan Template. The template identified 15 action items (milestones) and a number of action parties to facilitate States in their preparation for GRF implementation.

2.3 To maximize the benefits brought by the template, APANPIRG/31 adopted the following conclusion formulated by AOP/SG/4:

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**.*

2.4 The template is available in **Attachment A** and through this [link](#). Alternatively, it may be downloaded from ICAO APAC Website through *eDocuments* and *AGA*: <https://www.icao.int/APAC/Pages/eDocs.aspx>

GRF Implementation Monitoring and Status

2.5 ICAO developed the GRF implementation monitoring tool based on GRF Implementation Action Plan template using essential action items (Milestones) which can be accessed at <https://www.icao.int/safety/Pages/GRF.aspx>.

2.6 The GRF implementation dashboard for Asia and Pacific States is shown on the **Figure 1** below.

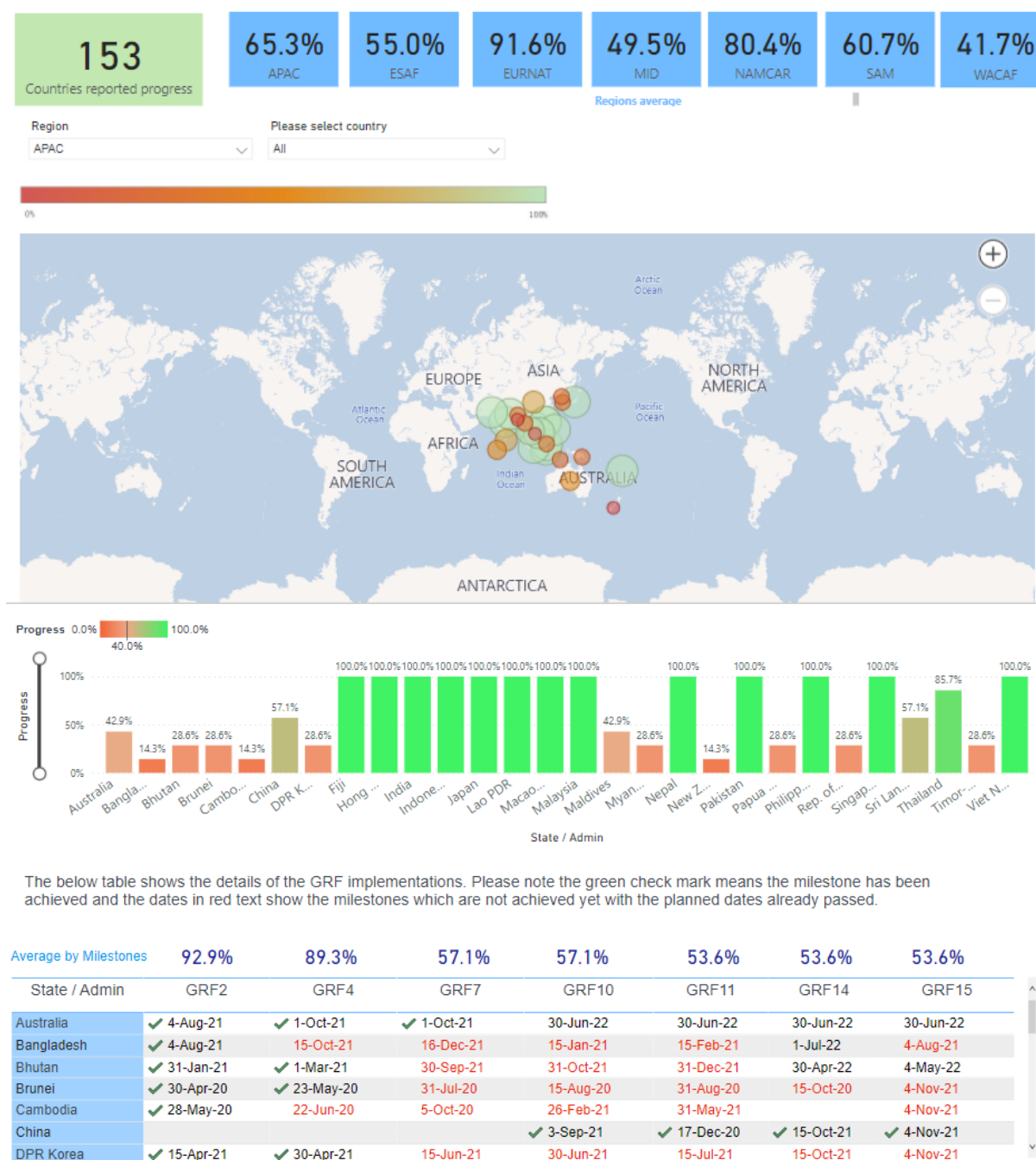


Figure 1: GRF Implementation Dashboard

2.7 In order to reflect the actual progress towards the GRF implementation, a periodic update by APAC States/Administration on actual implementation of the GRF Action Plan/Milestones was required. As implementation of GRF by all concerned stakeholders envisaged an enhancement of runway safety, e.g., reduction in runway excursions in future, and considering that only 14 APAC States/Administrations had implemented GRF on 4 November 2021 (GRF applicability date), APANPIRG/32 adopted the following Conclusion formulated by AOP/SG/5:

Conclusion APANPIRG/32/2 (AOP/SG/5-11): GRF Implementation Monitoring and Status

That, Asia Pacific States/Administrations are urged to:

- 1) *submit GRF Implementation Action Plan to ICAO APAC Office, if they have yet to do so (Conclusion APANPIRG/31/5 refers);*
- 2) *provide to ICAO APAC Office a periodic status update (at least monthly basis, at the end of each month) on actual implementation of GRF Action Items (Milestones) in accordance with GRF Implementation Action Plan developed by States until its full implementation; and*
- 3) *support ICAO portal on GRF implementation monitoring and status, including maps and charts, to be made available in ICAO Public Website.*

2.8 In 2021, ICAO APAC Office had received GRF Implementation Action Plans from 29 States/Administrations. 14 States implemented GRF on 4 November 2021 and one State reported that they have recently implemented GRF. Remaining 14 States are in the process of implementation of GRF. 13 States have yet to submit their GRF Implementation Action Plan to ICAO APAC Office.

Publication of procedures for assessment and reporting of runway condition report and issuance of SNOWTAM in AIP

2.9 Annex 15 Aeronautical Information Services (AIS) requires that any permanent changes in the AIP shall be published as AIP Amendments (6.3.1.2 of Annex 15 refers). Therefore, the procedures for assessment and reporting of runway condition report and issuance of the new SNOWTAM format should also be published in national AIP. The most appropriate section for publication of above information in AIP could be “AD 1.2.2 Snow plan” (refer to Appendix 2 of PANS-AIM (Doc 10066)).

Note:–

- 1) *Definition of SNOWTAM as per PANS-AIM (Doc 10066): A special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost, standing water or water associated with snow, slush, ice or frost on the movement area.*
- 2) *Guidance on the issuance of the SNOWTAM is available on ICAO APAC Website <https://www.icao.int/APAC/Pages/eDocs.aspx> under ATM heading.*

2.10 The list of the Asia Pacific States/Administrations that have published procedures for assessment and reporting of runway condition report and the issuance of SNOWTAM in AIP is depicted below in the Table 1.

| No. | States/Administrations that have implemented GRF | Procedures for assessment and reporting of runway condition report and issuance of SNOWTAM in AIP | Section of AIP |
|-----|--|---|---|
| 1 | Japan | √ | AD 1.2, 2.1. SNOWTAM (AIP, 24 Feb. 2022) |
| 2 | Pakistan | √ | AD 1.1, 5. Assessment and Reporting of Runway Surface Condition |
| 3 | Singapore | √ | AD 1.1, 6 Runway Surface Condition Assessment and Reporting |

| No. | States/Administrations that have implemented GRF | Procedures for assessment and reporting of runway condition report and issuance of SNOWTAM in AIP | Section of AIP |
|-----|--|---|--|
| 4 | Vietnam | √ | AD 1.2, 2. Runway Surface Condition Assessment and Reporting at the Airports of Viet Nam |
| 5 | USA | √ | ENR 1.1, 11. Runway Condition Reports (AIP, 16 July 2020) |

Table 1 –States/Administration that have published procedures for assessment and reporting of runway condition report and issuance of SNOWTAM in AIP

2.11 States who have already published it in other sections of the AIP may wish to consider to change it to “AD 1.2.2 Snow plan.”

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) urge States to submit GRF Implementation Action Plan to ICAO APAC Office if yet to do so (**Conclusion APANPIRG/31/5** refers), and provide periodic status updates thereafter on actual implementation of GRF Action Items (Milestones) in accordance with GRF Implementation Action Plan developed by States until its full implementation (**Conclusion APANPIRG/32/2** refers);
- b) endorse the Draft Conclusion provided in **Attachment B** in view of paragraph 2.9 above; and
- c) discuss any relevant matters as appropriate.

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Attachment B

| Draft Conclusion AP-AA/WG/4-xx: Publication of procedures for assessment and reporting of runway condition report and issuance of the SNOTAM in AIP | |
|---|--|
| <p>That,</p> <p>Asia Pacific States/Administrations are urged to publish the procedures for assessment and reporting of runway condition report and issuance of SNOTAM in their AIP in accordance with 6.3.1.2 of Annex 15 Aeronautical Information Services.</p> | <p>Expected impact:</p> <p><input checked="" type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input type="checkbox"/> Inter -Regional</p> <p><input checked="" type="checkbox"/> Ops/Technical</p> |
| Why: For safety, regularity and efficiency of air navigation. | Follow-up: <input checked="" type="checkbox"/> Required from States |
| When: 23 November 2022 | Status: Draft to be adopted by PIRG |
| Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other | |

NEW ICAO METHODOLOGY FOR ASSESSING AND REPORTING RUNWAY SURFACE CONDITIONS (GRF)

IMPLEMENTATION ACTION PLAN TEMPLATE¹

_____ [Insert name of State]

| ID | ACTION | ENTITY RESPONSIBLE | TARGET DATE ² | IMPLEMENTATION DATE ³ | REMARKS ³ |
|--------|--|---|--------------------------|----------------------------------|----------------------|
| GRF 1 | Review ICAO provisions and guidance and other Organisations guidance (see References) | CAA | 31/12/2020 | | |
| GRF 2 | Designate a focal point to coordinate implementation activities at the national level | CAA | 31/12/2020 | | |
| GRF 3 | Identify concerned focal points in each entity (CAA, Airport, ANSP, Aircraft operators – include BA, GA and military as applicable) | CAA, Airports, ANSP, Aircraft operators | 31/12/2020 | | |
| GRF 4 | Establish an Implementation Coordination Team including staff from the identified stakeholder entities | CAA | 15/01/2021 | | |
| GRF 5 | Conduct the initial training for the CAA, Airports, ANSP and Aircraft Operators' personnel (e.g. ICAO/ACI/IATA online courses, national awareness workshop, etc.) | CAA | 01/03/2021 | | |
| GRF 6 | Identify regulations, standards, procedures and guidance material to be developed/amended | National Focal Point and the Implementation Coordination Team | 01/04/2021 | | |
| GRF 7 | Develop a detailed national implementation plan and safety risk assessment. Each entity should also establish its specific implementation plan and safety risk assessment. | CAA, Airports, ANSP, Aircraft operators | 01/04/2021 | | |
| GRF 8 | Identify the necessary means and resources for the implementation (human, financial and material resources) | National Focal Point and the Implementation Coordination Team | 01/04/2021 | | |
| GRF 9 | Consult with Airport Runway Safety Teams | Airports | 14/05/2020 | | |
| GRF 10 | Develop and promulgate regulations and standards | CAA | 14/05/2020 | | |
| GRF 11 | Develop procedures and guidance material (translate if required) | National Focal Point and the Implementation Coordination Team | 15/06/2020 | | |

| ID | ACTION | ENTITY RESPONSIBLE | TARGET DATE ² | IMPLEMENTATION DATE ³ | REMARKS ³ |
|--------|--|---|--------------------------|----------------------------------|----------------------|
| GRF 12 | Provide the necessary means and resources for the implementation (human, financial and material resources) | CAA, Airports, ANSP, Aircraft operators | 30/06/2020 | | |
| GRF 13 | Conduct On-the-Job Training (OJT) on the implementation (ACI on-site GRF training course is available to support Airports) | CAA, Airports, ANSP, Aircraft operators | 01/08/2020 | | |
| GRF 14 | Perform tests/trials prior to the effective implementation | All | 01/10/2020 | | |
| GRF 15 | Applicability date for the new methodology for assessing and reporting runway surface conditions | All | 04/11/2021 | | |

Notes: ICAO Runway Safety Go-Team Assistance Missions may be arranged to support States and Airports. ACI APEX Safety Reviews are also available to support Airports.

Remarks: ¹ To be tailored and detailed by States; ² Target dates are indicative only; ³ For input by States

References

Publications / Websites

- Annexes 3, 6, 8, 14, & 15 – applicability date 4 Nov 2021
- PANS Aerodromes (Doc 9981), Aeronautical Information Management (Doc 10066), & Air Traffic Management (Doc 4444)
- Assessment, Measurement and Reporting of Runway Surface Conditions (Cir 355)
- Aeroplane Performance Manual (Doc 10064)
- ICAO GRF website <https://www.icao.int/safety/Pages/GRF.aspx>
- ICAO EUR/NAT Guidance on the Issuance of SNOTAM
<https://www.icao.int/EURNAT/EUR%20and%20NAT%20Documents/EUR%20Documents/EUR%20Documents/SNOTAM%20Guidance.pdf>

Training / Events

- ICAO/ACI Online Course for Airport Operators <https://www.olc.aero/product/icao-global-reporting-format/>
- ICAO/IATA Online Course for Aircraft Operators & Flight Crew <https://www.iata.org/en/training/courses/grf-runway-surface/talp38/en/>
- ICAO-IATA-CANSO Online Course for ANSPs, ATS & AIS staff https://www.iata.org/en/training/courses/grf-ansp/talp41/en/?utm_campaign=TRX004-GRF-2021&utm_medium=Email&utm_source=ICAO
- ICAO APAC Regional GRF Seminar <https://www.icao.int/APAC/Meetings/Pages/2019-AOP-SG3-GRF-Seminar.aspx>
- ICAO Global GRF Symposium <https://www.icao.int/Meetings/grf2019/Pages/default.aspx>