AUSTRALIA

AERONAUTICAL INFORMATION CIRCULAR (AIC)

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IMPLEMENTATION OF THE GLOBAL REPORTING FORMAT (GRF) IN AUSTRALIA

1. INTRODUCTION

1.1 This AIC cancels and replaces AIC H34/21 on 1 July 2022, with a change to the cancellation date.

1.2 The purpose of the AIC is to provide information about Australia's implementation of GRF, including a list of ICAO standards and provisions differences to be published later in 2022. On 4 November 2021, the International Civil Aviation Organization (ICAO) implemented the Global Reporting Format (GRF) an enhanced reporting format for assessing and reporting runway surface conditions.

1.3 This Aeronautical Information Circular (AIC) provides information about Australia's implementation of GRF.

2. OVERVIEW OF GLOBAL REPORTING FORMAT

2.1 The GRF involves collecting data on runway surface conditions, converting the data into structured operational information and providing the information to the end users according to a strict syntax readable in automated NOTAM processing systems. The system includes new definitions for surface condition on aerodrome surfaces, new requirements for surface assessments, introduction of Runway Condition Code (RWYCC), and expansion of the scope of SNOWTAM to include runways contaminated by standing water. There are also revised scales for reporting braking action and directional control.

2.2 The GRF has wide application for all climatic conditions including high latitude environments where snow and ice fall is the major factor through to tropical and temperate environments where the most significant factor is rainfall (e.g. thunderstorms).

3. ASPECTS OF GRF ALREADY IN USE IN AUSTRALIA

3.1 Several aspects of the GRF have already been implemented in Australia.

3.2 Specifically, runway surface conditions that used to be reported in terms of DRY, DAMP, WET, WATER PATCHES and FLOODED are now reported in terms broadly consistent with the GRF, namely DRY, WET, STANDING WATER etc. The depth of standing water, where measured and reported, will be provided by Air Traffic Services (ATS) to flight crew.

3.3 Additionally, the scales of reported braking action and lateral control are aligned with the scales introduced with the GRF.

3.4 At controlled aerodromes, ATC will relay information received from the aerodrome operator about runway surface conditions including contamination.

4. WHAT IS NOT BEING IMPLEMENTED IN AUSTRALIA

4.1 SNOWTAM

4.1.1 At this point, Australia is not introducing SNOWTAM.

4.1.2 This is because the condition most likely to trigger a SNOWTAM in Australia – STANDING WATER - is a rare event and highly transient. Given the lead time to compose a SNOWTAM, forward it to the NOTAM office and for it to be issued, the conditions that triggered the need for the SNOWTAM are likely to have passed.

Note: A runway that is simply wet - the most likely occurrence in Australia – would not normally trigger the issue of a SNOWTAM.

4.1.3 As mentioned earlier, the ATC at controlled aerodromes will relay information received from the aerodrome operator about runway surface conditions including the extent to which the runway is contaminated. This relay method is more likely to provide timely information than a SNOWTAM.

4.1.4 In the rare event that a runway is flooded and has extensive standing water, it is likely that the runway will be contaminated with debris to the extent of being unserviceable. In this case, a NOTAM is likely to be issued to report the runway as closed.

4.2 Runway Condition Code (RWYCC)

4.2.1 At this point, Australia is not introducing RWYCC for runway condition reports.

4.2.2 Instead, ATC will relay only plain language reports about known runway conditions and reported braking action/lateral control in accordance with the current runway condition terms. Flight crews in receipt of such information should make their own assessment of the impact of the report and take appropriate action.

4.3 Report of runway surface conditions in terms of runway 'thirds'

4.3.1 Reports about runway surface conditions will not be reported for runway thirds – that is a report for each third of a runway's length as measured from the lower runway designation number.

4.3.2 Instead, runway surface is reported in terms of a single assessment covering the entire runway.

5. GUIDANCE ON RUNWAY CONDITION REPORTING FOR THE PRESENT

5.1 The aviation community should continue using the existing procedures in the Aeronautical Information Publication (AIP) on runway surface conditions on and after 4 November 2021.

5.2 International operators can view Australia's differences in relation to the GRF in Appendix 1 of this AIC.

6. FUTURE DEVELOPMENTS

6.1 The Civil Aviation Safety Authority (CASA) is taking a risk-based approach to implementing the GRF and will be making appropriate changes to procedures and standards as these are developed.

6.2 Questions about GRF should be directed to CASA:

grf.australia@casa.gov.au

7. CANCELLATION

7.1 This AIC will be cancelled when the information is published in the AIP and the ICAO Standards and Recommended Practices differences listed in Appendix 1 is published on the Airservices website.

8. DISTRIBUTION

8.1 Airservices Australia website only.

Appendix

1. Summary of Australia's level of implementation of the GRF against ICAO standards and provisions.

1. Summary of Australia's level of implementation of the GRF against ICAO standards and provisions

Code

A = More exacting and exceeds the ICAO SARP

B = Different in character or other means of compliance

C = Less protective or partially implemented/not implemented

ND = No difference

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
ICAO Annex 6 Part I – International Commercial Air Transport – Aeroplanes			
Contaminated runway	Volume 5 of the Civil Aviation Safety Regulations (CASR) 1998 - the section labelled as the Dictionary	B	For Australia, a runway is contaminated if more than 25% of the runway surface area within the required length and width being used covered by: (a) water, or slush, more than 3 mm deep; or (b) loose snow more than 20 mm deep; or (c) compacted snow or ice.
Dry runway	Volume 5 of the Civil Aviation Safety Regulations (CASR) 1998 - the section labelled as the Dictionary	ND	

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
Wet runway	Volume 5 of the Civil Aviation Safety Regulations (CASR) 1998 - the section labelled as the Dictionary	B	For Australia, a runway is wet if the surface area required for a take-off or landing: (a) is not dry; and (b) is not contaminated.
4.4.2.1	Regulation 91.255 of the Civil Aviation Safety Regulations 1998 Part 91 Manual of Standards subsection 11.13 (1) AIP ENR 1.1 section 10.10 Regulation 91.675 of the Civil Aviation Safety Regulations 1998	B	Pilots are required to comply with the aeronautical information publication (AIP) requirements relating to controlled aerodromes. The AIP states pilots should advise ATS about any deterioration or improvement of reported runway surface conditions, deceleration, and/or directional control. Pilots are also required to report hazards to the safety of air navigation that they become aware of, provided that the pilot reasonably believes the information is not published in the AIP/NOTAM.
4.4.11	Regulation 91.410 of the Civil Aviation Safety Regulations 1998 Part 91 Manual of Standards paragraph 25.02(3)(a) Part 121 Manual of Standards Chapter 9	B	Pilots are required to ensure that landings are able to be safely conducted, having regard to all the circumstances of the proposed landing or take-off (including the prevailing weather conditions). Australia does not specifically mention taking into account runway surface conditions in legislation, but multiple requirements more broadly require taking into account landing weather conditions and in some cases specific requirements exist regarding whether the runway is dry, wet or contaminated.

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
5.2.6	Part 121 Manual of Standards section 9.03 Part 135 Manual of Standards section 10.07	C	Australia does not specifically require temperature to be taken into account for landing performance calculations in Part 121 or 135.
5.2.11	Part 121 Manual of Standards sections 9.10, 9.11 and 9.13 Part 135 Manual of Standards section 10.14	ND	
ICAO Annex 6 Part II – International General Aviation – Aeroplanes			
2.2.4.2.1	Regulation 91.675 of the Civil Aviation Safety Regulations 1998	ND	Pilots are required to report hazards to the safety of air navigation that they become aware of, provided that the pilot reasonably believes the information is not published in the AIP/NOTAM.
2.2.4.2.2	Regulation 91.255 of the Civil Aviation Safety Regulations 1998 Part 91 Manual of Standards subsection 11.13 (1) AIP ENR 1.1 section 10.10 Regulation 91.675 of the Civil Aviation Safety Regulations 1998	ND	At controlled aerodromes, pilots are required to advise ATS about any deterioration or improvement of reported runway surface conditions, deceleration, and/or directional control. Pilots are also required to report hazards to the safety of air navigation that they become aware of, provided that the pilot reasonably believes the information is not published in the AIP/NOTAM.

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
2.2.4.4 3.4.4.5	Regulation 91.410 of the Civil Aviation Safety Regulations 1998 Part 91 Manual of Standards paragraph 25.02(3)(a)	B	Pilots are required to ensure that landings are able to be safely conducted, having regard to all the circumstances of the proposed landing or take-off (including the prevailing weather conditions). Australia does not specifically mention taking into account runway surface conditions in legislation, but multiple requirements more broadly require taking into account landing weather conditions and in some cases specific requirements exist regarding whether the runway is dry, wet or contaminated.
3.5.2.5	Regulation 91.410 of the Civil Aviation Safety Regulations 1998 Part 91 Manual of Standards section 24.02	C	Pilots are required to ensure that take-offs and landings are able to be safely conducted, having regard to all the circumstances of the proposed landing or take-off (including the prevailing weather conditions). Australia does not specifically mention taking into account all the factors mentioned in the ICAO standard in legislation.
3.5.2.7	Regulation 91.410 of the Civil Aviation Safety Regulations 1998 Part 91 Manual of Standards section 24.02	C	Pilots are required to ensure that take-offs are able to be safely conducted, including clearing obstacles by safe margins until a safe altitude is reached, having regard to all the circumstances of the proposed take-off (including the prevailing weather conditions).
3.5.2.9	Regulation 91.410 of the Civil Aviation Safety Regulations 1998 Part 91 Manual of Standards section 25.02	ND	Pilots are required to ensure that landings are able to be safely conducted, having regard to all the circumstances of the proposed landing or take-off (including the prevailing weather conditions).

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
ICAO Annex 8 – Airworthiness of Aircraft			
2.2.7	CASR 21.017 CASR 23.001 CASR 25.001	C	Australia has not implemented the Amendment 105-B aircraft certification performance data enhancements. The Australian regulations rely on FAA and EASA certification standards (Parts 23 and 25), and do not include the Amendment 105-B enhanced performance data requirements at the current time.
ICAO Annex 14 – Aerodromes – Vol I – Aerodrome Design and Operations			
RCAM Definition	Nil	C	Runway surface conditions are assessed as a percentage of the entire runway only.
RWYCC Definition			
RCR Definition			
RSC Definition			
RSC Definition Notes			
Slush Definition	Nil	C	Slush currently not defined.
Snow Definition	Nil	C	Snow currently not defined.
2.2.3	61.020	ND	N/A
2.2.4	Nil	C	Not implemented in legislation
2.9.2	MOS 139.12.03 MOS 139.12.04 CASR 175.470	B	Not all enumerated items are explicitly described in regulations.
2.9.3	MOS 139.12.01	C	An aerodrome serviceability inspection must be carried out once a day when an air transport operation is scheduled, or no less than twice per week when air transport operations are not scheduled.

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
2.9.4	MOS 139.12.01 (4) MOS 139.13.03	B	Reporting officer training requirements are linked to the requirements for aerodrome serviceability inspections which do not meet the standards contained in section 2.9.2 to 2.9.5.
2.9.5	CASR 172.075 CASR 175.470 MOS 139.12.03	C	Runway surface conditions are assessed and reported using plain language.
2.9.6	CASR 172.075 CASR 175.470 MOS 139.12.03	C	Runway surface conditions are assessed and reported using plain language. Contaminant depth is considered part of the assessment but may not be reported in plain language text.
2.9.7	Nil	C	Friction measurements used as part of operational runway surface condition assessments are not currently included in the standards.
2.9.8	Nil	ND	
2.9.9	Nil	C	Slippery wet is a surface condition not included in aerodrome standards.
2.9.10	Nil	C	Aerodrome reporting requirements do not currently include the reporting of friction levels below the required minimum.
10.2.5	MOS 139.18.03 (2)	ND	The standards require friction measuring devices to meet ICAO criteria.
10.2.6	Nil	C	Training requirements for friction measurement personnel are not currently established.
10.2.7	MOS 139.18.02 (4)	ND	Technical inspections must be carried out to prevent surface conditions from falling below specific limits
10.2.8	Nil	C	A visual assessment of ponding for corrective action purposes is not currently required by the standards.

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
Attachment A 6	CASR 172.075 CASR 175.470 MOS 139.12.03	C	Runway surface conditions are assessed and reported using plain language.
ICAO Annex 15 – Aeronautical Information Services			
SNOWTAM	CASR 1998 Division 175.B.4	C	SNOWTAM definition is not defined in Australian legislation
PANS-AIM			
SNOWTAM	CASR 1998 Division 175.B.4	C	SNOWTAM definition is not defined in Australian legislation
5.2.2.2 a)	CASR 1998 Division 175.100	C	Snow plans are not implemented in Australia
5.2.5.1.4	CASR 1998 Division 175.100	C	Information about snow or standing water on the movement area is disseminated in NOTAM or the runway is closed though NOTAM.
Appendix 4	CASR 1998 Division 175.100	C	SNOWTAM is not used in Australia
PANS-Aerodromes			
2.2.3	61.020	ND	N/A
2.2.4	Nil	C	Not implemented in legislation
II 1.1.1.1 - 1.1.1.7	Nil	N/A	PANS contains background information only

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
II 1.1.1.8	CASR 172.075 CASR 175.470 MOS 139.12.03	B	Runway surface conditions at controlled aerodromes are assessed and reported through AIS (NOTAM) & ATM using plain language in a timely manner. At non-controlled aerodromes, runway contamination is to be reported through AIS (NOTAM).
II 1.1.2.1	CASR 172.075 CASR 175.470 MOS 139.12.03	C	Runway surface conditions are assessed as a percentage of the entire runway only.
II 1.1.2.2	CASR 172.075 CASR 175.470 MOS 139.12.03	C	Runway surface conditions are assessed and reported using plain language.
II 1.1.2.3	CASR 172.075 CASR 175.470 CASR 172.075	C	Runway surface conditions are reported using plain language only.
II 1.1.2.4			
II 1.1.2.5			
II 1.1.2.6			
II 1.1.3.1	MOS 139.12.01	B	Aerodrome serviceability inspections are to be carried out following severe weather events including wind, storms and periods of heavy rainfall.
II 1.1.3.2		C	
II 1.1.3.3		C	

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
II 1.1.3.4	CASR 172.075 CASR 175.470	C	Runway surface conditions are reported using plain language only.
II 1.1.3.5			
II 1.1.3.6			
II 1.1.3.7			
II 1.1.3.8	CASR 172.075 CASR 175.470 CASR Dictionary Part 1		
II 1.1.3.9	CASR 172.075 CASR 175.470		
II 1.1.3.10			
II 1.1.3.11			
II 1.1.3.12			
II 1.1.3.13			
II 1.1.3.14			
II 1.1.3.15			
II 1.1.3.16			
II 1.1.3.17	Nil	C	Sand treatments are not expected to be used for Australia weather phenomena.
II 1.1.3.18	CASR 172.075 CASR 175.470	C	Runway surface conditions are reported using plain language only.
II 1.1.3.19	Nil	C	Pilot reports are not currently supplied to the aerodrome operator and are not designated as a trigger for an aerodrome serviceability inspection.

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
II 1.1.3.20	CASR 172.075 CASR 175.470	C	Runway surface conditions are reported using plain language only.
II 1.1.3.21	Nil	C	Pilot reports are not currently supplied to the aerodrome operator and are not designated as a trigger for an aerodrome serviceability inspection.
II 1.1.3.22	CASR 172.075 CASR 175.470	C	Runway surface conditions are reported using plain language only.
II 1.1.3.23			
II Table 1			
II Table 2			
II Table 3			
II Table 4	AIP ENR 1.1 10.10.4	B	Braking action definitions are the same but runway surface conditions are reported using plain language only.
II Table 5			
II Figure 1	CASR 172.075 CASR 175.470	C	Runway surface conditions are reported using plain language only.
II Figure 2			
Attachment A to Chapter 1, Section 1.1			
PANS-ATM			
4.12.3.1	N/A	C	Australia has not implemented a special Air-report (AIREP SPECIAL) for when runway braking action encountered is not as good as reported. However, the Australian Aeronautical Information Publication asks pilots to advise ATS about any deterioration or improvement of reported runway surface conditions, deceleration, and/or directional control.

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
4.12.6.3	CASR 172.075	ND	
4.12.7	N/A	C	Australia has not implemented a process of forwarding aircraft reports about braking action to the aerodrome operator. Instead, ATC will relay and will relay those reports to other affected aircraft where relevant
7.5.2	CASR 172.075	ND	
11.4.3.4.2	CASR 172.075 AIP GEN 2.2, GEN 3.4, ENR 1.1	ND	
11.4.3.4.3	CASR 172.075 AIP GEN 2.2, GEN 3.4, ENR 1.1	C	Major domestic and international airports have ATC established that can will report known runway surface and braking conditions in a timely manner. ATC provides plain language reports on runway surface conditions (DRY, WET, STANDING WATER etc) for the runway as a whole. ATC does not report runway condition codes and normally does not report runway condition information for runway thirds. When a runway is not dry, ATC will request pilot reports on braking action when considered necessary and will relay those reports where relevant.
12.3.1.11	CASR 172.075 AIP GEN 2.2, GEN 3.4, ENR 1.1	C	Australia has not implemented the phrase for reporting runway condition code. ATC does not report runway condition codes and normally does not report runway condition information for runway thirds. Instead, ATC provides plain language reports on runway surface conditions (DRY, WET, STANDING WATER etc) for the runway as a whole. Australia reports runway surface conditions with the following phrase: a. RUNWAY (number) (condition)

ICAO Standard or Recommendation	Australian Legislative reference	Level of Implementation	Text of Difference
Appendix 1 (Model Airep Special)	CASR 172.075 AIP, ENR 1.1 Appendix 1	C	The Australian special Air-report (AIREP SPECIAL) does not include reporting when runway braking action encountered is not as good as reported. Instead, pilots are asked to report these matters directly to ATS.