



**Nineteenth Meeting of the CAR/SAM Regional Planning and Implementation Group
 (GREPECAS/19)
 Online, 27 – 29 October 2021**

Agenda Items 4: Global and Interregional Activities

Implementation of the new SNOWTAM format

(Presented by Secretariat)

EXECUTIVE SUMMARY	
This working paper presents the follow-up given by the Secretariat to the implementation of the SNOWTAM emission in its new format, as well as the recommendation of ePPRC/03 concerning the SNOWTAM Emission Guide.	
Action:	Indicated in 4.1
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> • Capacity and efficiency • Safety
<i>References:</i>	<ul style="list-style-type: none"> • Annex 15 – Aeronautical Information Services • ePPRC/01, 02 and 03 Meetings • SAM/AIM/13 and 14 Meetings

1. Introduction

1.1 ICAO, through Amendment 41 to Annex 15, postponed the entry into force of the new SNOWTAM format to November 4, 2021.

1.2 The Third Meeting, in online format, of the GREPECAS Program and Project Review Committee (ePPRC/03) reviewed the implementation of the SNOWTAM in its new format.

1.3 The Fourteenth Meeting of the AIM in the SAM Region (SAM/AIM/14) reviewed the implementation plans of SNOWTAM, in its new format, in the States of the SAM Region

1.4 ICAO Assembly 40 endorsed the Sixth Edition of the Global Air Navigation Plan (GANP).

1.5 The Thirteenth Air Navigation Conference issued recommendations related to the preparation of Vol. III of the Regional Air Navigation Plans.

2 Analysis

2.1 Amendment 39-B to ICAO Annex 15, in which the new SNOWTAM format is implemented, should enter into force on 5 November 2020. However, ICAO postponed it to 4 November 2021, through Amendment 41, due to the context of the COVID-19 pandemic.

2.2 The ePPRC/03 Meeting analysed the implementation status of SNOWTAM, focusing its analysis on the approval of a Regional Guide for SNOWTAM issuance. The Meeting was informed of the preparation of a Guide for the issuance of SNOWTAM by the Secretariat, based on ICAO Annexes 14 and 15 and the PANS - AGA and AIM and Circular 355, and the Guide to SNOWTAM Emission of the ICAO EUR/NAT Region.

2.3 The Meeting considered that the new SNOWTAM format generates a degree of difficulty, its implementation in the States where snow does not occur. Therefore, it was understood that the Guide was necessary to standardize concepts and procedures when issuing a SNOWTAM.

2.4 The Meeting noted that the Guide was available only in the Spanish version and recommended that it be translated into English for submission to the GREPECAS plenary for approval. Likewise, the Meeting recommended that the Secretariat review the proposal for the Guide, and if necessary, modify the name to indicate the extension of the scope of SNOWTAM to the contamination of the runway by the different types of hydrometeors (rain, drizzles, thunderstorms, etc.).

2.5 The Secretariat, complying with the recommendation of ePPRC/03, translated the Guide into English (**Appendix A**).

Implementation follow up in the SAM Region

2.6 The SAM/AIM/14 Meeting has followed up on the recommendation of activities carried out in the States, in order to achieve the implementation of the SNOWTAM broadcast in its new format. These activities can be seen in the Table in the **Appendix B** to this Working Paper.

2.7 In the same Meeting, the Secretariat has also reported on the activities carried out to publicize the Global Reporting Format for Runway Surface Conditions (GRF) and its implementation in the Aerodromes and Ground Aids (AGA) area. The Secretariat reported that, to support the states in their implementation, the South American Regional Office prepared an action plan, in conjunction with the SRVSOP Technical Committee, to provide follow-up and direct assistance to the member states on this measure. In addition, an informative portal was prepared with the progress of said implementation, under the address: <https://www.icao.int/SAM/SAFETY/GRF/Pages/default.aspx>

3 Conclusion

3.1 The Secretariat has complied with the ePPRC/03 Meeting Recommendation regarding translating the SNOWTAM Issuance Guide into English and has presented it for approval at this meeting.

3.2 The Secretariat considers, after following up on the implementation of SNOWTAM in its new format, that greater socialization of this requirement is necessary to avoid confusion in States in which snow does not occur. In CAR/SAM Regions, there are States affected by other types of hydrometeors and contaminates the runway, with the new format, are included in the scope of SNOWTAM.

3.3 The Secretariat considers, after observing the monitoring table, that not all States will comply with the deadline for the implementation of SNOWTAM in its new format; therefore, it asks the

Meeting to urge the States to make the maximum effort to implement SNOWTAM, in its new format, in the shortest possible time.

4 Action Requested

4.1 The Meeting is invited to:

- a) take note of the information presented;
- b) review the information contained in Appendices A and B;
- c) approve the SNOWTAM Issuance Guide available in Appendix A, in both languages (Spanish and English); and
- d) urge the States, which have not yet done so, to complete the processes that ensure the issuance of SNOWTAM as soon as possible.

— END —

Guidance on the Issuance of SNOWTAM

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ICAO South American Office



GUIDE ON THE ISSUANCE OF SNOWTAM

(Applicable from 4 November 2021)

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(V.1.0)*

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1. INTRODUCTION

1.1. The adoption of Amendment 38 to Annex 15 was issued on 1 April 2016 (State Letter Ref.: AN 2/ 2.4-16/18) effective on 11 July 2016. The second part of the amendment (39B) was applicable as of 5 November 2020. The COVID-19 pandemic has made it impossible to continue communicating the changes concerning the new GRF format. Therefore, the ICAO Council has decided to postpone, through Amendment 41 to Annex 15 (State Letter Ref.: ...) the effective date of the new SNOWTAM format to 4 November 2021.

1.2. Amendment 39B introduced a new SNOWTAM format, based on the recommendations of the Friction Task Force of the Aerodrome Design and Operations Panel (ADOP) relating to the use of a global reporting format for assessing and reporting runway surface conditions. The SNOWTAM provisions/format were subsequently moved to PANS-AIM (ICAO Doc 10066).

2. PURPOSE OF THE DOCUMENT

2.1 The ICAO South American Office, in collaboration with the SAM/AIM group, has prepared this document to provide explanation and examples for issuing SNOWTAM in its new format as of 4 November 2021.

2.2 Submit any comments, observations or suggestions on this document to the ICAO South American (ICAO SAM) Office: ICAOSAM@icao.int

3. GENERAL PROVISIONS OF SNOWTAM

Definition of SNOWTAM: 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. (PANS-AIM)

3.1 Metric units will be used in SNOWTAM and the unit of measurement will not be reported (e.g. mm, cm, m, etc.).

Example: 10/12/25 (item F): means that the depth of the contaminant in the first part of the runway is 10 mm, in the second part 12 mm and in the third part 25 mm. Units of measurement are metric but are not reported in the message.

3.2 As of 4 November 2021, the maximum validity of SNOWTAM is 8 hours.

Note 1 – When no SNOWTAM is issued after 8 hours of a previous SNOWTAM for an aerodrome, the old SNOWTAM will be deemed expired and it is assumed that the significant runway surface condition reported in the previous SNOWTAM no longer exists.

3.3 A new SNOWTAM will be issued whenever a new runway condition report (RCR) is received from the aerodrome operator. A new SNOWTAM cancels the previous SNOWTAM.

Note 1 – Prior agreement between the aerodrome AIS or NOF and the aerodrome authority is required to specify the means and process of submission of the runway condition report (RCR)/initiation of SNOWTAM.

Note 2 – If there is a valid SNOWTAM in the old format (with 24 hours validity) issued on 3 November 2021, it is recommended that a new SNOWTAM be issued in the new format, right after 0000 UTC of 4 November 2021 to replace the old SNOWTAM format.

3.4 When a new SNOWTAM is issued for a specific aerodrome that has another valid SNOWTAM, the new one automatically replaces the older SNOWTAM (there is no need to reference the older SNOWTAM in the new SNOWTAM, unlike what is done with NOTAM).

3.5 With reference to the SNOWTAM template (see paragraph 4), the letters used to indicate elements (from A to T; third column of the SNOWTAM template) are only used for reference purpose and must not be included in the messages. Letters M (mandatory), C (conditional) and O (optional) (second column of the SNOWTAM template) denote usage and information.

Example: items B) to H) below without the letters indicating elements (separated by one space):

01150915 12L 5/2/2 100/50/75 NR/06/06 WET/SLUSH/SLUSH

3.6 The abbreviated heading "TTAAiiii CCCC MMYGGgg (BBB)" is included to facilitate the automatic processing of SNOWTAM messages in computer data banks. The explanation of symbols is as follows:

TT	= SNOWTAM data designator = SW;
AA	= geographical designator for States; e.g., BR = Brazil, AG = Argentina — [see Location Indicators (Doc 7910), Part 2 — Index to nationality letters for location indicators)];
iiii	= SNOWTAM serial number expressed by a four-digit group;

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CCCC = four-letter location indicator of the aerodrome to which the SNOWTAM refers [see Location Indicators (Doc 7910)];

MMYYGGgg = date/time of observation/measurement, whereby:

MM = month, e.g., January = 01, December = 12

YY = day of the month

GGgg = time in hours (GG) and minutes (gg) UTC;

(BBB) = optional group to designate: A correction to a SNOWTAM previously disseminated with the same serial number = COR.

Note 1 — Parentheses in (BBB) indicate that this group is optional.

Note 2 — When reporting on more than one runway and date/time of observation/measurement for each runway is indicated by repeated Item B, the latest date/time of observation/measurement will be inserted in the abbreviated field (MMYYGGgg).

Example: Abbreviated heading of SNOWTAM No. 149 from San Carlos de Bariloche, Argentina, measurement/observation of 7 July at 0620 UTC:

SWAG0149 SAZS 07070620

Note — Information groups are separated by a space, as illustrated in the example.

3.7 The text “SNOWTAM” in the SNOWTAM format and the SNOWTAM serial number in a four-digit group will be separated by a space; for example: **SNOWTAM 0124**

Note 1 — The SNOWTAM serial number is reset at the beginning of each calendar year (starting with SNOWTAM 0001, on 1 January at 0000 UTC).

3.8 **Repeating information in the aeroplane performance calculation section for more than one runway:** When reporting on more than one runway, repeat the information in the aeroplane performance calculation section from the date and time of observation for each runway before the information in the situational awareness section.

Example:

**02170135 09R 5/2/2 100/75/75 NR/06/06 WET/SLUSH/SLUSH
02170225 09C 2/3/3 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW 35 02170225 09L 3/3/3
50/50/75 08/15/10 WET SNOW/WET SNOW/WET SNOW 40**

3.9 **Repeating information in the situational awareness section:** When reported, the information in the situational awareness section could be repeated, as applicable, for each runway, taxiway, and apron.

3.10 For readability purposes of the SNOWTAM message, include a line feed after to the SNOWTAM serial number, after item A, and after the aeroplane performance calculation section.

3.11 Mandatory information is:

- 1) AERODROME LOCATION INDICATOR;
- 2) DATE AND TIME OF OBSERVATION;
- 3) LOWER RUNWAY DESIGNATOR NUMBER;
- 4) RUNWAY CONDITION CODE FOR EACH RUNWAY THIRD; and

5) CONDITION DESCRIPTION FOR EACH RUNWAY THIRD (when runway condition code (RWYCC) is reported 1- 5)

Note 1 — This information is provided only when the runway condition for each runway third (Item D) has been reported as other than 6 and there is a condition description for each runway third (Item G) that has been reported other than DRY.

Note 2 — When the runway condition has not been reported, insert “NR” for the appropriate runway third.

Example: A SNOWTAM with the minimum (mandatory) information.

GG SCCIZTZX ...
111045 SSCIYNYX
SWCH0124 SCCI 07111035
(SNOWTAM 0124
SCCI
07111035 09R 5/4/4 NR/NR/NR NR/NR/NR SLUSH/COMPACTED SNOW/COMPACTED SNOW)

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4. DESCRIPTION OF SNOWTAM ELEMENTS

This section provides a description and examples for each element of the SNOWTAM format, as shown in the following template:

(COM heading)	(PRIORITY INDICATOR)	(ADDRESSES)		<≡
	(DATE AND TIME OF FILING)	(ORIGINATOR'S INDICATOR)		<≡
(Abbreviated heading)	(SW* SERIAL NUMBER)	(LOCATION INDICATOR)	DATE/TIME OF OBSERVATION	(OPTIONAL GROUP)
S	W * *			<≡(

SNOWTAM	→	(Serial number)	<≡
---------	---	-----------------	----

Aeroplane performance calculation section			
(AERODROME LOCATION INDICATOR)	M	A)	<≡
(DATE/TIME OF OBSERVATION (<i>Time of completion of measurement in UTC</i>))	M	B)	→
(LOWER RUNWAY DESIGNATION NUMBER)	M	C)	→
(RUNWAY CONDITION CODE (RWYCC) FOR EACH RUNWAY THIRD) (From Runway Condition Assessment Matrix (RCAM) 0, 1, 2, 3, 4, 5 or 6)	M	D)	/ / →
(PER CENT COVERAGE OF CONTAMINANT FOR EACH RUNWAY THIRD)	C	E)	/ / →
(DEPTH (<i>mm</i>) OF LOOSE CONTAMINANT FOR EACH RUNWAY THIRD)	C	F)	/ / →
(CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH) (<i>Observed on each runway third, starting from threshold having the lower runway designation number</i>) COMPACTED SNOW DRY DRY SNOW DRY SNOW ON TOP OF COMPACTED SNOW DRY SNOW ON TOP OF ICE FROST ICE SLUSH STANDING WATER WATER ON TOP OF COMPACTED SNOW WET WET ICE WET SNOW WET SNOW ON TOP OF COMPACTED SNOW WET SNOW ON TOP OF ICE	M	G)	/ / →
(WIDTH OF RUNWAY TO WHICH THE RUNWAY CONDITION CODE APPLIES, IF LESS THAN PUBLISHED WIDTH)	O	H)	<≡
Situational awareness section			
(REDUCED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH (<i>m</i>))	O	I)	→
(DRIFTING SNOW ON THE RUNWAY)	O	J)	→
(LOOSE SAND ON THE RUNWAY)	O	K)	→
(CHEMICAL TREATMENT ON THE RUNWAY)	O	L)	→
(SNOW BANKS ON THE RUNWAY) (<i>If present, distance from runway centre line (m) followed by "L", "R" or "LR" as applicable</i>)	O	M)	→
(SNOW BANKS ON TAXIWAY)	O	N)	→

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(SNOW BANKS ADJACENT TO THE RUNWAY)	O	O)	→
(TAXIWAY CONDITION)	O	P)	→
(APRON CONDITION)	O	R)	→
(MEASURED FRICTION COEFFICIENT)	O	S)	→
(PLAIN-LANGUAGE REMARKS)	O	T))
<p>NOTES:</p> <ol style="list-style-type: none"> * Enter ICAO nationality letters as given in ICAO Doc 7910, Part 2, or otherwise the applicable aerodrome indicator. Information on other runways, repeat from B to H. Information in the situational awareness section repeated for each runway, taxiway, and apron. Repeat as applicable when reported. Words in parentheses () not to be transmitted. For letters A) to T), refer to the <i>Instructions for the completion of the SNOWTAM format, paragraph 1, item b)</i>. 			

SIGNATURE OF ORIGINATOR (not for transmission)

SECTION 1: AEROPLANE PERFORMANCE CALCULATION SECTION

Item A — Aerodrome location indicator (four-letter location indicator) of the aerodrome for which the SNOWTAM is issued. The aerodrome location indicators are listed in ICAO Doc 7910 (Location Indicators).

Example: Punta Arena, Chile/SCCI

Item B — Date and time of observation (eight-figure date/time group giving time of observation as month, day, hour, and minutes in UTC).

Example: 08050640;

08: August

05: Day

0640: Hour and minutes in UTC

Item C — Lower runway designator number (nn[L] or nn[C] or nn[R]).

Note.— Only one runway designator is inserted for each runway and always the lower number.

Example: For RWY07L/25R, 07L must be reported (07<25)

07L	-----	-----	-----	25R	SWY
-----	-------	-------	-------	-----	-----

Item D — Runway condition code for each runway third. Only one digit (0, 1, 2, 3, 4, 5 or 6) is inserted for each runway third, separated by an oblique stroke (n/n/n). The runway condition code is determined during the assessment of the runway surface condition, in accordance with the provisions of the PANS-AGA and the runway condition assessment matrix (RCAM).

Runway condition assessment matrix (RCAM)			
Assessment criteria		Downgrade assessment criteria	
Runway condition code	Runway surface description	Aeroplane deceleration or directional control observation	Pilot report of runway braking action
6	<ul style="list-style-type: none"> • DRY 	---	---
5	<ul style="list-style-type: none"> • FROST • WET (The runway surface is covered by any visible dampness or water up to and including 3 mm depth) <p><i>Up to and including 3 mm depth:</i></p> <ul style="list-style-type: none"> • SLUSH • DRY SNOW • WET SNOW 	Braking deceleration is normal for the wheel braking effort applied and directional control is normal.	GOOD

4	<p>-15°C and lower outside air temperature: □ COMPACTED SNOW</p>	Braking deceleration or directional control is between good and medium.	GOOD TO MEDIUM
3	<ul style="list-style-type: none"> • WET (“slippery wet” runway) • DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW <p>More than 3 mm depth:</p> <ul style="list-style-type: none"> • DRY SNOW • WET SNOW <p>Higher than -15°C¹ outside air temperature: □ COMPACTED SNOW</p>	Braking deceleration is noticeably reduced for the wheel braking effort applied or directional control is noticeably reduced.	MEDIUM
2	<p>More than 3 mm depth of water or slush:</p> <ul style="list-style-type: none"> • STANDING WATER • SLUSH 	Braking deceleration or directional control is between medium and poor.	MEDIUM TO POOR
1	<ul style="list-style-type: none"> • ICE 	Braking deceleration is significantly reduced for the wheel braking effort applied or directional control is significantly reduced.	POOR
0	<ul style="list-style-type: none"> • 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

Example: 3/2/5: The runway condition code for the first part of runway 07L is 3, for the second part 2 and for the third part is 5.

7L0	-----	-----	-----	25R	SWY
	Nieve húmeda / 6 mm (RCC 3)	Nieve fundente / 5 mm (RCC 2)	Mojada / 3 mm (RCC 5)		

Item E — Per cent coverage for each runway third. Where provided, insert 25, 50, 75 or 100 for each runway third, separated by an oblique stroke ([n]nn/[n]nn/[n]nn).

Note 1 — This information is provided only when the runway condition for each runway third (Item D) has been reported as other than 6 and there is a condition description for each runway third (Item G) that has been reported other than DRY.

Note 2 — When the runway condition is not reported, “NR” will be inserted for the appropriate runway thirds.

¹ De preferencia debería utilizarse la temperatura de la pista cuando se dispone de esta información.

Note 3 — When the runway condition is “DRY” or the coverage is less than 10%, element E will be reported by inserting “NR”.

Note 4 — When no information is to be reported, insert “NR” at its relevant position in the message to indicate to the user that no information exists (/NR/).

Example: 50/25/NR: The percentage of coverage at the first runway third of RWY 07L is 50% (between 26 and 50%), at the second part of the runway is 25% (between 10 and 25%) and the coverage is less than 10% at the third part of the runway.

07L	-----	-----	-----	25R	SWY
	Wet snow/ 6 mm Coverage 26-50% (RCC 3)	Slush/ 5 mm Coverage 10-25% (RCC 2)	Wet / 3 mm Coverage less than 10% (RCC 5)		

Item F — Depth of loose contaminant for each runway third. When provided, insert in millimetres for each runway third, separated by an oblique stroke (nn/nn/nn or nnn/nnn/nnn).

Note 1 — This information is only provided for the following contamination types:

- standing water, values to be reported 04, then assessed value. Significant changes of mm up to and including 15 mm;
- slush, values to be reported 03, then assessed value. Significant changes of 3 mm up to and including 15 mm;
- wet snow, values to be reported 03, then assessed value. Significant changes of 5 mm; and
- dry snow, values to be reported 03, then assessed value. Significant changes of 20 mm.

Note 2 — When the runway condition is not reported, insert “NR” for the appropriate runway thirds.

Example: 05/06/04: the depth of the contaminant in the first part of the runway is 6 mm, in the second part 5 mm and in the third part 4 mm.

Item G — Condition description for each runway third. Insert any of the following condition descriptions for each runway third, separated by an oblique stroke.

- COMPACTED SNOW
- DRY SNOW
- DRY SNOW ON TOP OF COMPACTED SNOW
- DRY SNOW ON TOP OF ICE
- FROST
- ICE
- SLUSH
- STANDING WATER
- WATER ON TOP OF COMPACTED SNOW
- WET
- WET ICE
- WET SNOW
- WET SNOW ON TOP OF COMPACTED SNOW
- WET SNOW ON TOP OF ICE
- DRY (only reported when there is no contaminant).

Note — When the runway condition is not reported, insert “NR” for the appropriate runway thirds.

Item H — Width of runway to which the runway condition codes apply. Insert the width in metres if it is less than the published runway width.

Example: 35; the published width of RWY 07L/25R is 45m and the RCR applies to 35m.

SECTION 2: SITUATIONAL AWARENESS SECTION

Note 1 — Elements in the situational awareness section end with a full stop.

Note 2 — Elements in the situational awareness section for which no information exists, or where the conditional circumstances for publication are not fulfilled, are left out completely.

Item I — Reduced runway length. Insert the applicable runway designator and available length in metres (example: RWY nn [L] or nn [C] or nn [R] REDUCED TO [n]nnn).

Nota.— This information is conditional when a NOTAM has been published with a new set of declared distances.

Example: RWY 07L REDUCED TO 2500.

Item J — Drifting snow on the runway. When reported, insert “DRIFTING SNOW”.

Note 1 — Definition of high and low drifting snow: ensemble of snow particles raised by a sufficiently strong and turbulent wind. (WMO definition.)

Note 2 — Drifting snow in the SNOWTAM format refers to the airport (the whole movement area), not a specific runway. However, for large airports with several runways where drifting snow could exist in one or some runways (not all), element J) could be reported with the relevant runway designator.

Example: RWY 07 DRIFTING SNOW

Item K — Loose sand on the runway. When loose sand is reported on the runway, insert the lower runway designator and, leaving a space, insert “LOOSE SAND” (RWY nn or RWY nn[L] or nn[C] or nn[R] LOOSE SAND).

Example: RWY 07L LOOSE SAND

Item L — Chemical treatment on the runway. When chemical treatment has been reported applied, insert the lower runway designator and, leaving a space, insert “CHEMICALLY TREATED” (RWY nn or RWY nn[L] or nn[C] or nn[R] CHEMICALLY TREATED).

Example: RWY 08L CHEMICALLY TREATED

Item M — Snow banks on the runway. When snow banks are reported present on the runway, insert the lower runway designator and, leaving a space, “SNOW BANK” and leaving a space, left “L” or right “R” or both sides “LR”, followed by the distance in metres from the edge of the runway, separated by a space FM CL (RWY nn or RWY nn[L] or nn[C] or nn[R] SNOW BANK Lnn or Rnn or LRnn FM CL).

Example: RWY 07L SNOW BANK L12 FM CL.

Item N — Snow banks on a taxiway. When snow banks are reported present on a taxiway, insert the taxiway designator and with a space “SNOW BANK” (TWY [nn]n SNOW BANK).

Example: TWY B SNOW BANK

Item O — Snow banks adjacent to the runway. When snow banks are reported present penetrating the height profile in the aerodrome snow plan, insert the lower runway designator and “ADJ SNOW BANKS” (RWY nn or RWY nn[L] or nn[C] or nn[R] ADJ SNOW BANKS).

Example: RWY 08R ADJ SNOW BANKS

Item P — Taxiway conditions. When taxiway conditions are reported as poor, insert the taxiway designator and, leaving a space, insert “POOR” (TWY [n or nn] POOR or ALL TWYS POOR).

Example: TWY C POOR; ALL TWYS POOR

Item R — Apron conditions. When apron conditions are reported as poor, insert the apron designator and, leaving a space, insert “POOR” (APRON [nnnn] POOR or ALL APRONS POOR).

Example: APRON 1 POOR.

Item S — Measured friction coefficient. When reported, insert the friction coefficient and the friction measuring device.

Note.— This will only be reported for States that have an established programme of runway friction measurement using a State-approved friction measuring device.

Item T — Plain language remarks.

5. EXAMPLES OF SNOWTAM

Example of SNOWTAM 1

GG SUMUYNIX SBRJYNYX MPZZMAMX
170100 SAEZYNYX
SWAG0149 SAEZ 07170055
(SNOWTAM 0149
SAEZ
07170055 09L 5/5/5 100/100/100 NR/NR/03 WET SNOW/WET/WET)

Example of SNOWTAM 2

GG SLZZNANX SKBOYNYX SPIMYNYD
280240 SCSCYNYX
SWSC0150 SCSC 06280240

(SNOWTAM 0150
SCSC
06280230 05 5/5/2 100/100/100 NR/NR/03 WET/WET/SLUSH
06280230 09L 5/5/4 100/100/100 NR/03/03 WET/WET SNOW/COMPACTED SNOW

Note - When runways are not parallel, the first line of the SNOWTAM should refer to the lower-numbered runway end.

Example of SNOWTAM 3

GG SGASYNYX SLVRZPZX SBZZNWAX
170820 SAZSYNYX
SWAG0150 SAZS 07170820
(SNOWTAM 0150
SAZS
07170810 05 5/5/2 100/100/100 NR/NR/03 WET/WET/SLUSH
07170810 09L 5/5/4 100/100/100 NR/03/03 WET/WET SNOW/COMPACTED SNOW
07170810 09R 5/2/2 75/50/75 NR/06/06 WET/SLUSH/SLUSH 40)

Example of SNOWTAM 4

GG SCSCYNYX
0220230 SCCIZPZX
SWSC005 SCCI 07020230
(SNOWTAM 005
SCCI
07020225 09L 5/5/5 100/100/100 NR/NR/03 WET/WET/WET SNOW
07020225 09R 5/2/2 100/50/75 NR/06/06 WET/SLUSH/SLUSH
07020225 09C 2/3/3 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW
RWY 09L SNOW BANK R20 FM CL. RWY 09R ADJ SNOW BANKS. TWY B POOR. NORTH
APRON POOR)

Example of SNOWTAM 5

GG EADBZQZX EADNZQZX EADSZQZX
170350 EADDYNYX
SWEA0152 EADD 02170345
(SNOWTAM 0152
EADD
02170345 09L 5/5/5 100/100/100 NR/NR/03 WET/WET/ WET SNOW
02170134 09R 5/2/2 100/50/75 NR/06/06 WET/SLUSH/SLUSH
02170225 09C 2/3/3 75/100/100 06/12/12 SLUSH/WET SNOW/WET SNOW 35
DRIFTING SNOW. RWY 09L LOOSE SAND. RWY 09R CHEMICALLY TREATED. RWY 09C
CHEMICALLY TREATED.)

Example 6:

GG EADBZQZX EADNZQZX EADSZQZX

170540 EADDYNYX
SWEA0154 EADD 02170535
(SNOWTAM 0154
EADD
02170535 09L 6/6/6 NR/NR/NR NR/NR/NR DRY/DRY/DRY
02170515 09R 5/2/2 100/50/75 NR/06/06 WET/SLUSH/SLUSH
02170500 09C 2/2/2 75/75/50 06/12/12 SLUSH/SLUSH/SLUSH 40

Drifting snow. RWY 09R CHEMICALLY TREATED. RWY 09C CHEMICALLY TREATED.
TWY A Y TWY B CLSD.)

6. CONCLUSIONS

6.1 Appropriate means of communication between the airport authorities/operators (the originators of the runway condition reports through RCR) and the AIS/NOFs (responsible for disseminating information through SNOWTAM according to the information received by RCR) must be ensured.

6.2 When RCR is provided by airports to NOFs, the NOFs must carry out an initial quality check to verify the following:

- All mandatory information items (items A, B, C, D and G, as appropriate) are provided
- Items E, F and G are not empty (values to be provided) or the position of this type of information in the information string would be identified by NR
- The syntax requirement of SNOWTAM in PANS-AIM is strictly adhered
- Information provided is in accordance with the criteria explained above (in terms of units of measurement, format of data, etc.)
- Information conforms to other sources (date/time with the Gregorian calendar/UTC; runway, taxiway and apron designators, width and length as per the published ones in the AIP, etc.)

Note 1 - In case the NOF needs clarification on the information received through RCR, necessary coordination must be made with the relevant airport authority/operator.

Note 2 - The accuracy of RCR data is the responsibility of the airport authority, as NOFs are normally unable to verify if the data collected is correct against the actual runway condition.

Note 3 - NOFs must carry out quality checks at different stages, including before issuance of the SNOWTAM to ensure that the SNOWTAM reflects the same information as was originally received from the airport authority through RCR.

6.3 NOF/AIS personnel must be sufficiently trained with the new SNOWTAM format.

6.4 The software/templates used to issue/receive SNOWTAMs (NOTAM/SNOWTAM system) must be updated, as applicable, to enable issuing, receiving, storing and retrieving of SNOWTAMs in the new format.

6.5 The State's national GRF implementation team (including airport authorities, ATS, CAA, users, AIS/NOF, etc.) must ensure that the required coordination, awareness, training, processes, procedures, etc. are in place.

6.6 The national GRF implementation team may elect to publish an aeronautical information circular (AIC) through the aeronautical information services (AIS) to:

- provide a summary of the implementation process and mechanisms;
- raise awareness among all stakeholders by providing information about the GRF and the new SNOWTAM format;
- detail responsibilities of each stakeholder involved (airports, NOF, ATS, users, etc.);
- explain coordination processes between airports, NOF, ATS, etc.;
- provide implementation plan/timelines;
- prepare for tests, if any; and
- provide any other information that could be useful to facilitate the implementation.

Note 1 - A simple AIC template is provided in Attachment B to this document. However, the content of the AIC depends on the information and the arrangements required in each State.

REFERENCES:

- *Procedures for Air Navigation Services (PANS) — Aeronautical Information Management (PANS-AIM, Doc 10066)*
 - *Procedures for Air Navigation Services (PANS) — Aerodromes (PANS-Aerodromes, Doc 9981)*
 - *Annex 14 to the Convention on International Civil Aviation – Aerodromes, Volume I – Aerodrome Design and Operations*
 - *Assessment, Measurement and Reporting of Runway Surface Conditions (ICAO Circular 355)*
 - *Guidance on the issuance of SNOWTAM (ICAO EURNAT Office)*
-

**Attachment A:
Answers to frequently asked questions/issues**

N°	Question / issue	Comment / Initial analysis	Remarks (Impact, if the issue is not resolved)
1	Old SNOWTAM format (available after 4 November 2021) - Will all States issue the SNOWTAM under the new format?	Linked to item 2 below	Possible rejection by regional and national AIS databases and users if some States continue issuing the SNOWTAM in the old format after 4 November 2021
2	Worldwide implementation status monitoring and reporting	How will State plans and eventually their status of implementation be monitored (linked to item 1 above)? It is proposed to establish an online dashboard to monitor State plans and their status of implementation.	This may lead to the circumstances detailed in item 1 above. It may lead to non-harmonised implementation by various States.

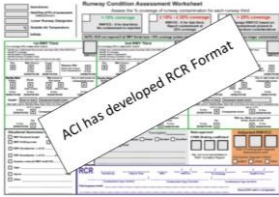
3	<p>Transition concept=> At 00.00 UTC, 4 November 2021</p> <ul style="list-style-type: none"> - What happens to the validity of SNOWTAM messages issued on 3 NOV 2021? - From 4 NOV 2021 - 8H (instead of 24H) - What will be the validity for SNOWTAMs that are received in the OLD format after 5 November 2021? 	<p>4 November 2021</p> <ul style="list-style-type: none"> - What happens to the validity of SNOWTAM messages issued on 3 NOV 2021? - From 4 NOV 2021 - 8H (instead of 24H) - What will be the validity of SNOWTAMs that are received in the OLD format after 4 November 2021? - From 4 November 2021, at 0000 UTC, all SNOWTAMs will be valid for 8 hours. States should issue an old-format SNOWTAM at the end of 3.11.21 (2359 UTC) to cancel the old SNOWTAM format, and then issue a new SNOWTAM in the new format instead, immediately after 0000 UTC. - This should be clarified by ICAO and be included in guidance material. 	<p>If this is not done, there will be both old- and new-format SNOWTAMS on 4 November 2021, which could lead to some of the old SNOWTAMs being missed (because the systems will execute the new rules after 0000 UTC). The issue is addressed in the "Guidance for the issuance of SNOWTAM", para. 3.3 note 2".</p>
4	<p>Repetition of the items in the Situational Awareness section (Limitation of ICAO specifications). There is no clear guidance on the repetition of the items in the Situational Awareness section, except for this note:</p> <div data-bbox="220 885 829 1015" style="border: 1px solid black; padding: 5px;"> <p>NOTES:</p> <ol style="list-style-type: none"> 1. *Enter ICAO nationality letters as given in ICAO Doc 7910, Part 2 or otherwise applicable aerodrome identifier. 2. Information on other runways, repeat from B to H. 3. Information in the situational awareness section repeated for each runway, taxiway and apron. Repeat as applicable when reported. 4. Words in brackets () not to be transmitted. 5. For letters A) to T) refer to the Instructions for the completion of the SNOWTAM Format, paragraph 1, item b). </div> <ul style="list-style-type: none"> - Room for various interpretations on how to repeat items 	<p>Option 1. Repeat whole group of Item I) to Item S) for each runway separately.</p> <ul style="list-style-type: none"> - Only some of the items in the situational awareness section are related to runways, others are not (for example, items N, P, R). <p>Option 2. Repeat each item (item I) for different runways, then next element for different runways, up to item S)).</p> <ul style="list-style-type: none"> - Items I) to S) occur one after the other (in the given order) but each item can be repeated for different runways. <p>Option 3. Items appear in no particular order (except for item T, which is the last).</p> <ul style="list-style-type: none"> - Option 3 is the most flexible and preferable approach, as it also accepts examples from options 1 and 2. 	<p>If not clarified, there would be different ways of ordering the items in the situational awareness section, which may lead to confusion and difficulty of understanding among users.</p> <p>The issue is addressed in the "Guidance for the issuance of SNOWTAM", para. 3.9.</p>

5	<p>Item J) simply says insert "DRIFTING SNOW" (when reported) without the RWY designator. Nevertheless, item K) says to insert the lower RWY designator and, leaving a space, "LOOSE SAND" (if LOOSE SAND appears on the RWY). What is the logic behind the two different cases, one with the RWY designator and the other without? <i>Ref.: PANS-AIM 10066, Appendix 4 SNOWTAM format applicable 4 November 2021, Instructions for items J) and K).</i></p>	<p>Is the RWY designator needed for drifting snow (as for loose sand)? (This element is linked to item 6 above).</p>	<p>Drifting snow is an ensemble of snow particles raised by the wind to small heights above the ground (WMO definition). Drifting snow refers to the airport (whole movement area), not to a specific runway. The issue is addressed in the "Guidance for the issuance of SNOWTAM", para. 4 section 2 element J.</p>								
6	<p>The SW heading accompanied by two letters indicating the State:</p> <table border="1" data-bbox="220 698 829 755"> <thead> <tr> <th>(Abbreviated heading)</th> <th>(SW* SERIAL NUMBER)</th> <th>(LOCATION INDICATOR)</th> <th>(DATE/TIME OF ASSESSMENT)</th> </tr> </thead> <tbody> <tr> <td>S W</td> <td>.</td> <td>.</td> <td>.</td> </tr> </tbody> </table> <p>SW: AA Three States (Australia, Canada and USA) have ONLY one nationality letter: C (Canada), Y (Australia), K (USA) - What second letter will be used for Canada, Australia and the USA?</p>	(Abbreviated heading)	(SW* SERIAL NUMBER)	(LOCATION INDICATOR)	(DATE/TIME OF ASSESSMENT)	S W	.	.	.	<ul style="list-style-type: none"> - "X" could be used as a second letter for Canada (CX) and Australia (YX). - For the USA -> KX cannot be applied as they use different NOFs for the time being. - Clarification needed by ICAO 	<p>Possible rejection of SNOWTAMs The concerned Regions/States to look into this matter (Australia, Canada and United States).</p>
(Abbreviated heading)	(SW* SERIAL NUMBER)	(LOCATION INDICATOR)	(DATE/TIME OF ASSESSMENT)								
S W	.	.	.								
7	<p>Apron/TWY designator: - What characters are allowed? i. Alphanumeric characters ii. Symbols (hyphen, underscore, space, etc.) - Is there any length limitation (similar to AIXM)?</p>	<p>Examples of some AIPs: Apron: APRON, APRON 2, APRON II, SAULT COLLEGE APRON, 1, II, IV, APRON II (MNR), CANADIAN WARPLANE HERRITAGE MUSEUM APRON, 51B, DEICING, APRON MAINTENANCE WEST, APRON (POS. 26-28) Taxiway: TWY, TWY A, TWYA, TWY1, TWY 1, A2, A, B-1, WEST, BA, K4 CATHI-RWY, NNORTH, D THR24-RWY14L, B NORTH 10/28, 08/26, W II, TWY C10/STAND102, TWY-1</p>	<p>Possible rejection of SNOWTAMs The issue is addressed in the "Guidance for the issuance of SNOWTAMs", para. 4 section 2 item R. Recommendation: These elements must be flexible and accept both alphanumeric characters and symbols.</p>								

8	<p>Here there seems to be a discrepancy between the ‘general descriptions’, where the ‘CONDITION DESCRIPTION FOR EACH RUNWAY THIRD (Item G)’ is mandatory only when RWYCC is 1-5, and the ‘field descriptions’ where the ‘CONDITION DESCRIPTION FOR EACH RUNWAY THIRD (Item G)’ is always mandatory.</p> <p>The question is when is the ‘CONDITION DESCRIPTION FOR EACH RUNWAY THIRD (Item G)’ mandatory?</p>	<p>PANS-AIM (there is a discrepancy in the PANS-AIM):</p> <ul style="list-style-type: none"> - The SNOWTAM format indicates that item G is mandatory and not conditional. – - The general descriptions say that item G is mandatory and then includes this condition in parenthesis. -PANS-Aerodromes says that item G is mandatory without any condition. <p>Clarification needed by ICAO (Should it be mandatory--with no condition--in PANS-AIM as well?)</p>	<p>Confusion for AISs/NOFs</p> <p><u>Recommendation: Item G is mandatory only when RWYCC is 1 to 5. This is the minimum required by PANS-AIM; however, States/Regions may decide to report item G in all circumstances (RCC 0 to 6).</u></p>
9	<p>Need for an AIC template (sample) for AISPs in order to use it for announcing their plans and details on the implementation of GRF and the new SNOWTAM format</p>	<p>The AIC will be a good tool for States to put their national plan together and carry out the necessary coordination among their national stakeholders. It will provide good evidence for ICAO to monitor the status with the various States. It will also be useful for users. Some States have started to develop an AIC template. It is possible to work with those States to make a general template to be used by all States.</p>	<p>Lack of awareness of stakeholders of the implementation.</p> <p>Some States already have their own AICs, which could be distributed to all States.</p> <p>A sample AIC template is provided in appendix B to the “Guidance for the issuance of SNOWTAM”.</p>

10	Need for guidance material (as part of Doc 8126 or any type of GM) describing the implementation guidelines and explaining the SNOWTAM format in more detail.	<p>As a first step (quick action), a brief document could be developed by a group of volunteers, to include the following:</p> <ul style="list-style-type: none"> - the missing codes of the SNOWTAM format and the clarifications needed, as explained in the items below; - details on each element of the SNOWTAM format; - some implementation guidelines. <p>This document should be published by ICAO as a matter of priority through a mechanism that does not involve a long process (this should be published as soon as possible but not later than December 2021). The second step would be for ICAO to later include the provisions of this document in the PANS-AIM and Doc 8126, as appropriate.</p>	<p>Confusion and lack of sufficient knowledge and information for NOFs may lead to non-implementation or difficulties for AISPs.</p> <p>The development of "Guidance for the issuance of SNOWTAM" is the basis for future inclusion in Doc 8126.</p>
11	There is a need for training material and a course specifically for AIS staff.	<p>ACI has developed a course for airport operators. IATA is developing a course for airline operators. No specific course exists for AIS. A half-day CBT course is proposed for development by ICAO (to be available as soon as possible) (or a classroom course - TBD).</p> <p>The volunteer group (mentioned in item 10) could put the training materials together using the current PANS AIM and PANS-Aerodromes provisions, as well as the guidance material that they develop (referred to in the previous item).</p>	<p>Lack of sufficient knowledge among AIS staff and difficulty with implementation (as raised by many States' AISPs).</p> <p>Development of "Guidance for the issuance of SNOWTAM" would help.</p>
12	<p>The validity of SNOWTAMs after 4 November 2021 is 8 hours and before that, 24 hours.</p> <p>After the publication of the PANS-AIM, the validity of both SNOWTAM formats (the one up to 3 NOV and the one after 4 NOV 2021) is written as 8 hours (probably because of a printing error).</p> <p><i>Ref.: PANS-AIM Doc 10066, Appendix 4 SNOWTAM format (applicable until 3 November 2021), page App. 4-2, 1. General item d)</i></p>	<p>This element must be 24 hours.</p> <p>This must be a typographical error.</p>	

13	<p>Conditional fields, Items E), F): What has to be inserted for the other two thirds if the condition applies only to one third of the RWY (and the other two thirds are dry and clean)? Example: C) Runway 09 D) RWYCC 6/6/5, G) DRY/DRY/STANDING WATER: Question for E) and F): E) ? /? / 100, F)? /? / 04 Ref.: PANS-AIM Doc 10066, Appendix 4 SNOWTAM format applicable on 4 November 2021, Instructions 2. Item E) Note 1 and 2; Item F) Note 1 and 2</p>	<p>According to PANS-AD, Item E) is not reported for one runway third if it is dry or less than 10% covered. Examples: 25/50/100 NR/50/100 if contaminant coverage is less than 10% in the first third, 25/NR/100 if contaminant coverage is less than 10% in the middle third, 25/50/NR if contaminant coverage is less than 10% in the last third.</p>	<p>The problem has been resolved (closed).</p>
14	<p>Item F) (Depth of deposited contaminant): The field condition is not clear in case of a depth below the minimum values for the contamination of slush, wet snow and dry snow. Which values must be inserted in those cases in item F) and G)? Ref.: PANS-Aerodromes II-I-13 Table II-I-2, Notes 1-3</p>	<p>According to PANS-AD, the value could be below the minimum in the case of significant changes. Here are examples from 9981: 06/04/12 [STANDING WATER] 02/04/09 [SLUSH] 02/05/10 [WET SNOW or WET SNOW ON TOP OF...] 20/02/100 [DRY SNOW or DRY SNOW ON TOP OF...]</p>	<p>The problem has been resolved (closed).</p>
15	<p>Validity 8 hours: It is not clear whether a series of SNOWTAMs must end with a final SNOWTAM reporting “DRY - RWYCC 6”, or if no SNOWTAM is issued after 8 hours, does it mean that there is no longer any contamination. What is the valid status of the contamination if no SNOWTAM is issued after 8 hours? Ref.: PANS-Aerodromes Doc 9981, Part II, Chapter 1 applicable on 4 November 2021, 1.1.3.2</p>	<p>Either the reported runway surface condition ends as a result of the issuing of a SNOWTAM reporting RWYCC 6, or the SNOWTAM expires after 8 hours. If no SNOWTAM is issued after 8 hours, the previous SNOWTAM is considered to have “expired” and it should be understood that there is no longer any contaminant on the runway.</p>	<p>The problem has been resolved (closed)</p>

16	<p>The new ICAO SNOWTAM FORMAT cannot be used for manual entries in the form (owing to lack of space). How should a manual entry be made in practice, e.g. in field G), or if several entries have to be made in the situational awareness section?</p> <p><i>Ref.: PANS-AIM Doc 10066, Appendix 4 SNOWTAM Format applicable on 4 November 2021</i></p>	<p>Airport operators should develop their own form (Runway Condition Report - RCR) to collect runway surface condition data (based on the GRF provisions). When the RCR is filled in, it must be sent to the NOF. The RCR form must be in line with the SNOWTAM format (so as to be easily understandable for NOF personnel and able to be copied into SNOWTAM format by the NOF)</p> <p>On the NOF side, the NOTAM/SNOWTAM system must be updated in line with the new format, in order to accept the new entries.</p> <p>ICAO may provide a sample RCR form for airport operators.</p> 	<p>This is related to the airport operator (not AIS/AIM).</p>
17	<p>The acronym “SNOWTAM” is obviously not applicable to those conditions which are related only to water/standing water or loose sand, especially in regions which never have snow and have therefore never issued a SNOWTAM. A new acronym which is better related to RWY conditions should be created.</p>	<p>The new SNOWTAM could also be issued where there is standing water not necessarily associated with snow. However, there is no short plan currently to change the acronym. The IMP (WG-A) is conducting a thorough review of the NOTAM system. WG-A must be informed of this comment.</p>	<p>This is not an immediate problem (but must be considered by the IMP in future NOTAM improvements).</p>
18	<p>Item F) (Depth of loose contaminant): Significant changes due to standing water and slush: What is the reason for the upper limit for the significant change? What action is to be taken if a change that exceeds the upper limit occurs?</p> <p><i>Ref.: PANS-Aerodromes II-I-13 Table II-I-2</i></p>	<p>Clarification needed</p>	<p>This is related to the airport operator (not AIS/AIM).</p>

19	<p>Item G) (Condition description): It is clear that there could be different conditions in each third of the RWY. It is not clear whether it is possible to insert more than one condition on a single third of the RWY. If this is the case (contrary to our expectations), how must these conditions be inserted? (¡Syntax!)</p> <p><i>Ref.: PANS-AIM Doc 10066, Appendix 4 SNOWTAM format applicable on 4 November 2021, Instructions for Item G)</i></p>	<p>The dominant contamination or the one which may have the most severe safety consequences must normally be reported.</p> <p>(Read ICAO Circular 355, paragraph 4.47, for more details on “Multiple contaminants”).</p>	<p>The problem has been partially resolved.</p>
20	<p>Item I) - Reduced runway length: conditional: only when a NOTAM has been published with a new set of declared distances.</p> <p>Does this mean that a NOTAM containing the new RWY length has to be issued in addition to the SNOWTAM if the clearance does not cover the total length of the RWY, or does it mean that the reduced RWY length has to be inserted if a NOTAM was published concerning the reduced RWY length (of the dry RWY)?</p> <p><i>Ref.: PANS-AIM Doc 10066, Appendix 4 SNOWTAM format applicable on 4 November 2021, Instructions for Item I), in particular Note to item).</i></p>	<p>It can be understood from the note to Item I) that: when the runway length is reduced owing to the closure of part of a runway (as a result of contaminant on the runway that has not been cleared), a SNOWTAM should be issued with the new runway length (Item I) and a NOTAM should also be issued together with the SNOWTAM to indicate the new declared distances.</p> <p>The SNOWTAM is not the consequence of the NOTAM or <i>vice versa</i>. Both must be issued as a consequence of the closure of part of a runway due to a contaminant. The wording of the note may have caused confusion (ICAO must consider this).</p>	<p>The problem has been partially resolved.</p>
21	<p>MEASURED FRICTION COEFFICIENT (Item S)</p> <p>a. In order to be able to recognise Item S and not to confuse it with Item T (text) during SNOWTAM processing/parsing, it is necessary to know the format of Item S. In the current Annex 15, it is a single digit for each third of the runway, separated by an oblique stroke (/): 5/5/5.</p> <p>Will this format remain the same?</p>	<p>Automated systems might need to have a defined format for Item S in order for this element to be recognised and also to allow Item S and the next element (Item T) to be distinguished. Clarification needed by ICAO.</p>	<p>Confusion for automated systems to recognise and analyse SNOWTAM messages.</p>

Attachment B:

Sample AIC Template

[AIC HEADER]	AIC n /2020 1 XXX 20
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SUBJECT: IMPLEMENTATION OF THE GLOBAL REPORTING FORMAT (GRF)

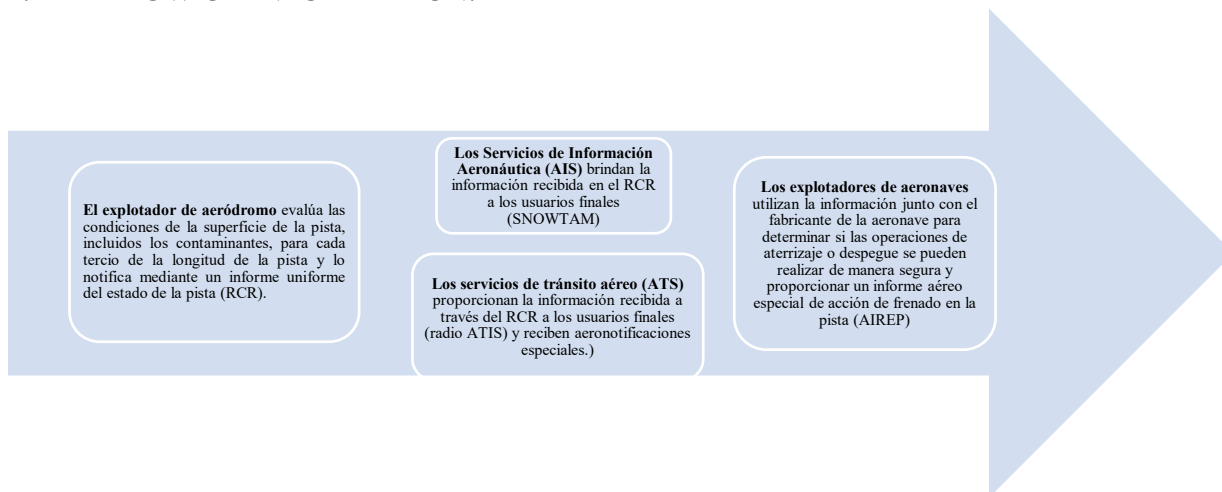
1. INTRODUCTION:

1.1. The new ICAO methodology for assessing and reporting runway surface conditions, commonly known as the Global Reporting Format (GRF), enables the harmonised assessment and reporting of runway surface conditions and a correspondingly improved flight crew assessment of take-off and landing performance.

The GRF, applicable on 4 November 2021, is described through 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; 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).

Furthermore, supporting material is available in Circular 355 *Assessment, measurement and reporting of runway surface conditions*, and in Doc 10064 *Aeroplane performance manual* (under development).

2. FLOW OF INFORMATION:



2.1. **Collection of information:** The aerodrome operator is responsible for assessing the condition of the runway for each third of the runway and issue a runway condition report (RCR). This report contains the RWYCC (runway condition code) and information that 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) and associated procedures for downgrading and upgrading.

Note - Details of the global reporting format are contained in the Procedures for air navigation services (PANS) - Aerodromes (PANS-Aerodromes, Doc 9981) and ICAO Circular 355 (Assessment, measurement and reporting of runway surface conditions).

Runway condition assessment matrix (RCAM)			
Assessment criteria		Downgrade assessment criteria	
Runway condition code	Runway surface description	Aeroplane deceleration or directional control observation	Pilot report of runway braking action
6	□ DRY	---	---
5	<ul style="list-style-type: none"> • FROST • WET (The runway surface is covered by any visible dampness or water up to and including 3 mm depth) <p>Up to and including 3 mm depth:</p> <ul style="list-style-type: none"> • SLUSH • DRY SNOW • WET SNOW 	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	GOOD
4	<p>-15°C and lower outside air temperature:</p> <p>□ COMPACTED SNOW</p>	Braking deceleration or directional control is between good and medium.	GOOD TO MEDIUM
3	<ul style="list-style-type: none"> • WET (“slippery wet” runway) • DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW <p>More than 3 mm depth:</p> <ul style="list-style-type: none"> • DRY SNOW • WET SNOW <p>Higher than -15°C outside air temperature:</p> <p>□ COMPACTED SNOW</p>	Braking deceleration is noticeably reduced for the wheel braking effort applied or directional control is noticeably reduced.	MEDIUM
2	<p>More than 3 mm depth of water or slush:</p> <ul style="list-style-type: none"> • STANDING WATER • SLUSH 	Braking deceleration or directional control is between medium and poor.	MEDIUM TO POOR
1	<ul style="list-style-type: none"> • ICE 	Braking deceleration is significantly reduced for the wheel braking effort applied or directional control is significantly reduced.	POOR
0	<ul style="list-style-type: none"> • 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:

- *Aeronautical information services (AIS)* provide the information received in the RCR to end users through SNOWTAM in the new format.

Note - Details of the new SNOWTAM format are contained in the Procedures for air navigation services (PANS) - Aeronautical information management (PANS-AIM, Doc 10066).

- *Air traffic services (ATS)* provide the information received via the RCR to end users through radio, ATIS, etc. and received special air-reports.

2.3. **Using the information:** *Aircraft operators* use 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 a runway braking action special air-report (AIREP).

3. IMPLEMENTATION PLAN:

Date of implementation

3.1. The new ICAO GRF including the new SNOWTAM format will be implemented in [name of State] on 4 November 2021 at 0000 UTC.

3.2. The national GRF implementation plan of [name of State] is contained in the Attachment to this AIC.

National GRF implementation team

3.3. [provide information on your national GRF implementation team that is responsible for GRF planning and implementation at the national level]

Stakeholders involved

3.4. The following stakeholders in [name of State] are involved in the implementation of the GRF:

- Aerodromes:
Name of aerodrome 1
Name of aerodrome 2
Name of aerodrome 3
..
- Air traffic services (ATS)
- Aeronautical information services (international NOTAM Office)
- Airlines (flight operations departments, dispatchers, pilots)
- Civil aviation authority

Coordination among aerodromes, AIS (NOF) and ATS units

3.5. [explain the mechanisms and processes of coordination among aerodromes, ATS and AIS, points of contact, etc. or refer to the other local procedure that contains this information, if available]

Training and awareness raising

3.6. [explain the awareness-raising, training and promotion activities on GRF, SNOWTAM and other relevant provisions that are planned for different stakeholders]

Tests and trials

3.7. [insert information about your planned tests and trials, if any]

Other information

3.8. [include any other information that may be useful]

Appendix C

GLOSSARY

AA	State geographical designator; <i>e.g.</i> , BR = Brazil, AG = Argentina
ADJ	Adjacent
AIC	Aeronautical information circular
AGA	Aerodromes, air routes & ground aids
AIM	Aeronautical information management
AIP	Aeronautical Information Publication
AIREP	Air-report
AIS	Aeronautical information service
AISP	Aeronautical information service provider
ATIS	Automatic terminal information service
ATM	Air traffic management
ATS	Air traffic services
BBB	Optional group to designate: A correction to a SNOWTAM previously disseminated with the same serial number = COR
CAA	Civil aviation authority
CCCC	Four-letter location indicator of the aerodrome to which the SNOWTAM refers [see Location Indicators (Doc 7910)]
CL	Centre line
FM	Course from a fix to manual termination
GGgg	Time in hours (GG) and minutes (gg) UTC

GRF	Global Reporting Format
GRP	Geographic reference point
Iiii	SNOWTAM serial number expressed by a four-digit group
MMYYGGgg	Date/time of observation/measurement
MM	Month, <i>e.g.</i> January = 01, December = 12
YY	Day of the month
GGgg	Time in hours (GG) and minutes (gg) UTC
NOTAM	Notice to airmen
NOF	International NOTAM office
PANS	Procedures for air navigation services
RCAM	Runway condition assesment matrix
RCC	Rescue coordination centre
RCR	Runway condition report
RWY	Runway
SAM	South American Office
SARPS	Standards and recommended practices
SNOWTAM	A special series SNOWTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format
TT	NOTAM data designator = SW
TWY	Taxiway
UTC	Coordinated universal time
WG-A	Aeronautical Information Management Working Group (WG-A)

YY

Day of the month

- END -

APPENDIX B

Table III: Activities carried out for the implementation of the new SNOWTAM format

<i>N°</i>	<i>States</i>	<i>Action taken</i>	<i>Implementation date</i>	<i>Remarks</i>
1	Argentina	They have formed a working team with all areas involved. They have carried out tests both at airports where snow occurs and airports that may be affected by heavy rainfall.	4 November 2021	There is confusion among some users regarding the issuance of SNOWTAMs at airports that do not have snow events. The new SNOWTAM format should be more disseminated.
2	Brazil	It has worked in coordination with all areas involved and has issued AIC-A 16/21 and has issued an AIC-A 16/21 in relation to the GRF and a regulatory framework on the new SNOWTAM format will be issued.	4 November 2021	
3	Bolivia	No actions reported		
4	Chile	<ul style="list-style-type: none"> ✓ Was included in the field training guidelines that each AD provides annually. ✓ DAP 15 00 regulations were updated and are about to be published, including the new format that will apply from 4 November. ✓ A workshop will be held for all field managers in October and November. It is included in the annual training plan. 	4 November 2021	<p>Attached as evidence:</p> <ul style="list-style-type: none"> ▪ Directives TSV (AIS) of 2020, applied in 2021 due to the pandemic. ▪ Annual training plan for 2020, being implemented in 2021 due to the pandemic.
5	Colombia	Given the geographic location of the State, in Colombia, SNOWTAM information is not published. In compliance with what was agreed in the Virtual Mission with the ICAO Secretariat, the difference will be published in the AIP/COL part GEN-1.7. In the same way, we will be awaiting to coordinate with the MET and ATS providers, the measures that replace or complement the notification of poor braking (if it occurs) due to a flooded track or when its effectiveness is degraded.		Taking into account that the Virtual Mission was received and served recently, no action related to what was agreed and projected has yet been carried out.

<i>N°</i>	<i>States</i>	<i>Action taken</i>	<i>Implementation date</i>	<i>Remarks</i>
6	Ecuador	Recurring NOTAM course prepared pending execution November 2021.	January 2022	This course will include Snowtam topic
7	Guyana	They have updated the system - The Focal point for the GRF is creating an Accountability Table for all parties involved. The AIS has not yet defined a policy in relation to the issuance of SNOWTAM in its new format.	Implementation date not foreseen	
8	Panama	A workshop on SNOWTAM was conducted in October 2019 for NOTAM personnel. Have participated in webinar on runway status.	No implementation date available for this year; possible the first quarter of year 2022.	Will participate in training activities developed by AGA. Will participate in workshops to be developed by air navigation services involved in the subject.
9	Paraguay	Paraguay has worked together with the service provider in the regulatory area. The new SNOWTAM format has been included in State regulations.	4 November 2021	Technicians by the Aerodrome operator, AGA and AIM waiting for participation in the GRF course
10	Peru	No differences were recorded in the Peruvian regulations. The form was included in the amendment of RAP 315.	IV quarter 2021	Was included in the new edition of RAP 315 amendment 2, prepublication approved, pending publication
11	Suriname	No actions reported	No date defined	
12	Uruguay	A work committee was established with all the areas involved.	Implementation date not defined yet	A working committee was established with all areas involved.
13	Venezuela	No actions reported	No date defined	