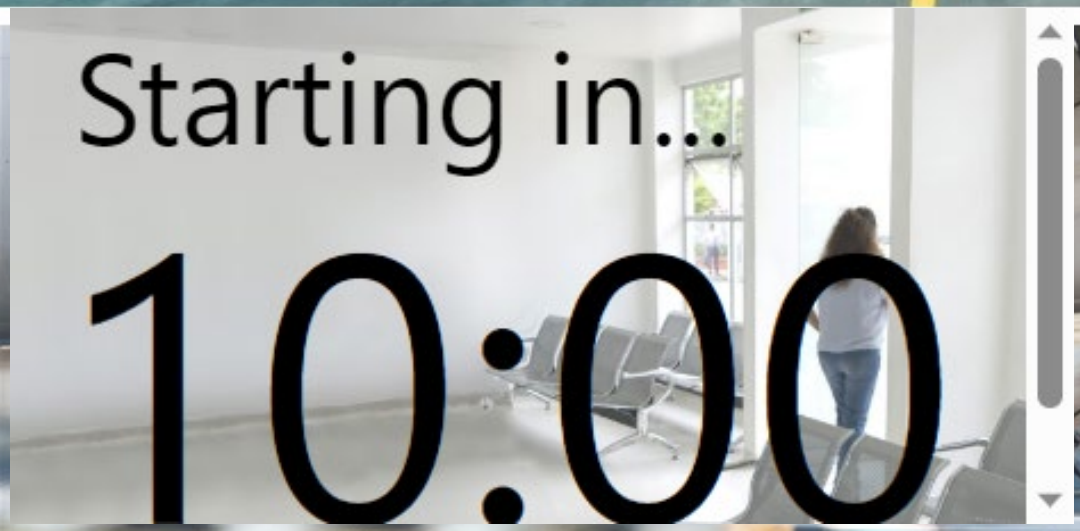
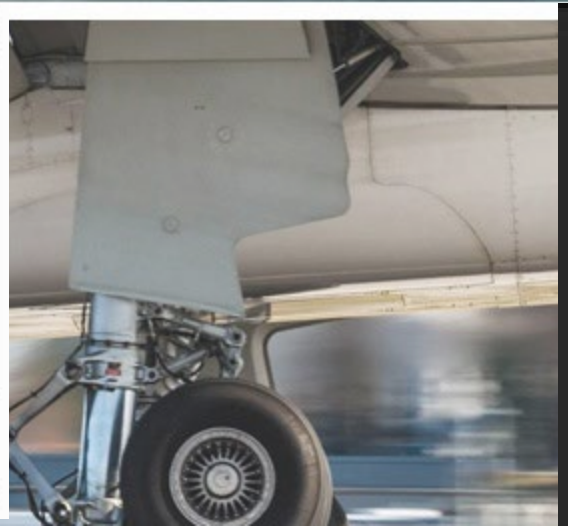
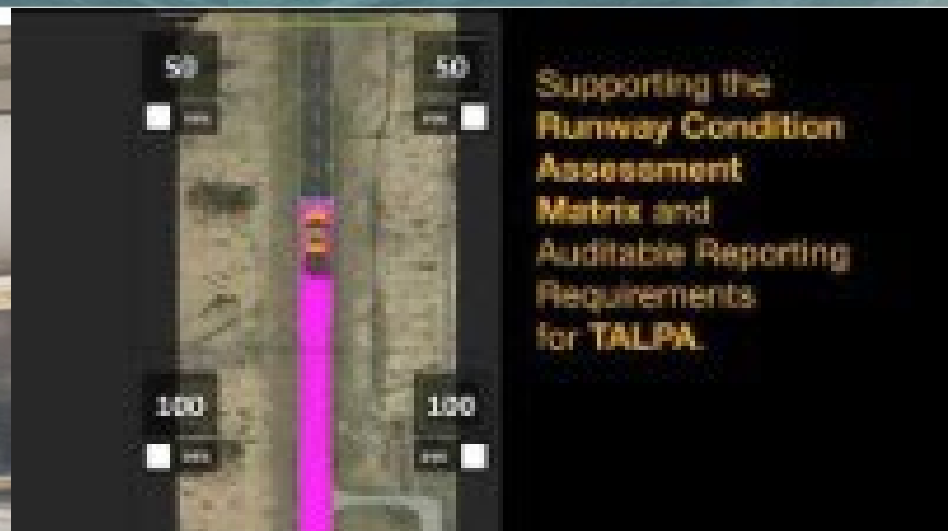
ICAO UNITING AVIATION

Global Reporting Format
GRF: RwyCC & SNOWTAM Preps
Workshop







ICAO UNITING AVIATION

Global Reporting Format
GRF: RwyCC & SNOWTAM Preps Workshop

Eng. Mrs. Natasha Leonora-Belefanti

AIM TF Rapporteur – ICAO NACC

AUG 21-24 2023

Topics

- ICAO'S Global Reporting Format – General Information Recap
- ICAO'S Global Reporting Format – ATCS, ATIS, AIM, AD & SNOWTAM
- Evaluation NACC Region →NOV 2021 – NOV 2022
- GRF Lessons Learned & Preventive measures
- GRF Implementation Statuses

ICAO'S Global Reporting Format – General Information Recap

Recap on GRF General Information

Global Reporting Format (GRF):

- ICAO's methodology of GRF, was applicable since November 4th 2021 for the NAMCCAR region
- It is used for assessing and reporting of runway surface conditions
- Enables the harmonized assessment and reporting of runway surface conditions

Recap on GRF General Information

Global Reporting Format (GRF) is described through:

- Annex 3 — Meteorological Service for International Air Navigation;
- Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes and Part II — International General Aviation — Aeroplanes;
- Annex 8 — Airworthiness of Aircraft;
- Amendment 13-B to Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations;
- Annex 15 — Aeronautical Information Services
- 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).

Recap on GRF General Information

Global Reporting Format (GRF):

- Helps improve flight crew assessment of take-off and landing performances
- Improves the accuracy and timeliness of runway condition assessment and harmonizes this information globally
- Expected to reduce the risk of runway excursions.

Reporting runway surface conditions:

- The Aerodrome Operator assesses runway surface conditions, whenever water is present on an operational runway.
- The Aerodrome Operator produces a Runway Condition Report (RCR).
- Helps to coordinate with and establish a common language between the related parties involved, such as:
  Aerodrome operator – Aircraft operators & Pilots – ATC – AIS/AIM.

Reporting runway surface conditions *(relevant to this region)*:

Contaminant Types	Definition
Wet / slippery wet	Water on the surface less than 1/8 inch in depth
Water	Water on the surface at least 1/8 inch in depth
Standing water	Water on the surface of depth greater than 3 mm.
Sand / dirt	Grains of finely divided rock and mineral particles
Slush	Mix of water and sand/dirt

Evaluation of the Runway is carried out by Airport Operations with the help of the Runway Condition Assessment Matrix (RCAM)

Recap on GRF General Information

Reporting runway surface conditions:

- **Contaminated runway**
  A runway is contaminated when more than 25% per third of the runway surface area (whether in isolated areas or not) within the required length and width being used is covered by water, or slush more than 3 mm (0.125 in) deep.

- **Dry runway**
  A dry runway is one which is clear of contaminants and visible moisture within the required length and the width being used.

- **Wet runway**
  A runway that is neither dry nor contaminated.

Evaluation of the Runway is carried out by Airport Operations with the help of the Runway Condition Assessment Matrix (RCAM)

Recap on GRF General Information

Runway Condition Assessment Matrix (RCAM)

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RUNWAY CONDITION ASSESSMENT MATRIX (RCAM)

Source: ICAO PANS-Aerodromes, Doc 9981

Assessment		Downgrade Assessment Criteria	
Runway Condition Code	Runway Surface Description	Airplane Deceleration or Directional Control Observation	Pilot Report of Runway Braking Action
6	• Dry	---	---
5	• FROST • WET (The runway surface is covered by visible dampness or water level of 3 mm and below) Up to and including 3mm: • SLUSH • DRY SNOW • WET SNOW	Braking deceleration for the wheel-braking effort applied AND the directional control is normal.	GOOD
4	-15°C and lower outdoor air temperature: • COMPACTED SNOW	Braking deceleration AND directional control is between Good and Medium.	GOOD TO MEDIUM
3	-WET ("slippery wet" runway) -DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW More than 3 mm depth: • DRY SNOW • WET SNOW Higher than -15°C outdoor air temperature 1: • COMPACTED SNOW	Braking deceleration is noticeably reduced for the wheel-braking effort applied AND directional control is noticeably reduced.	MEDIUM
2	More than 3 mm depth of water or slush: • STANDING WATER • SLUSH	Braking deceleration AND directional control is between Medium and Poor.	MEDIUM TO POOR
1	ICE [2]	Braking deceleration is significantly reduced for the wheel-braking effort applied AND directional control is significantly reduced.	POOR
0	• WET ICE [2] • WATER ON TOP OF COMPACTED SNOW [2] • DRY SNOW or WET SNOW ON TOP OF ICE [2]	Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	LESS THAN POOR

[1] Runway surface temperature should preferably be used where available.
[2] The aerodrome operator may assign a higher RWYCC (but no higher than code 3) for each third of the runway, provided the orocedure in PANS-Aerodromes. Doc 9981. 1.1.3.15 is followed.

Runway condition assessment matrix (RCAM)

Runway condition code	Assessment: Runway surface description	Downgrade assessment criteria: Aeroplane deceleration or directional control observation	Downgrade assessment criteria: Pilot report of runway braking action
6	• DRY	---	---
5	• FROST • WET (The runway surface is covered by any visible dampness or water up to and including 3 mm depth) *Up to and including 3 mm depth:* • SLUSH • DRY SNOW • WET SNOW	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	GOOD
4	*–15°C and Lower outside air temperature:* • COMPACTED SNOW	Braking deceleration OR directional control is between Good and Medium.	GOOD TO MEDIUM
3	• WET ("slippery wet" runway) • DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW *More than 3 mm depth:* • DRY SNOW • WET SNOW *Higher than –15°C outside air temperature:* • COMPACTED SNOW	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	MEDIUM
2	*More than 3 mm depth of water or slush:* • STANDING WATER • SLUSH	Braking deceleration OR directional control is between Medium and Poor.	MEDIUM TO POOR
1	• ICE	Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	POOR
0	• 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

Runway Condition Assessment Matrix (RCAM)

Runway condition assessment matrix (RCAM)

Runway surface condition	DRY	WET (any visible dampness)	WET ("slippery wet")	CONTAMINATED															
Runway surface condition descriptors				STANDING WATER	WATER[3]	FROST	SLUSH		DRY SNOW				WET SNOW				COMPACTED SNOW		ICE[2]	WET ICE[2]
Depth		Up to and including 3 mm		More than 3 mm			Up to and including 3 mm	More than 3 mm	Up to and including 3 mm	More than 3 mm			Up to and including 3 mm	More than 3 mm						
Runway surface condition descriptors continued					ON TOP OF COM-PACTED SNOW[2]						ON TOP OF COM-PACTED SNOW	ON TOP OF ICE[2]			ON TOP OF COM-PACTED SNOW	ON TOP OF ICE[2]	-15°C and lower outside air temperature[1]	Higher than -15°C outside air temperature[1]	In cold and dry conditions	
RWYCC	6	5	3	2	0	5	5	2	5	3		0	5	3		0	4	3	1	0

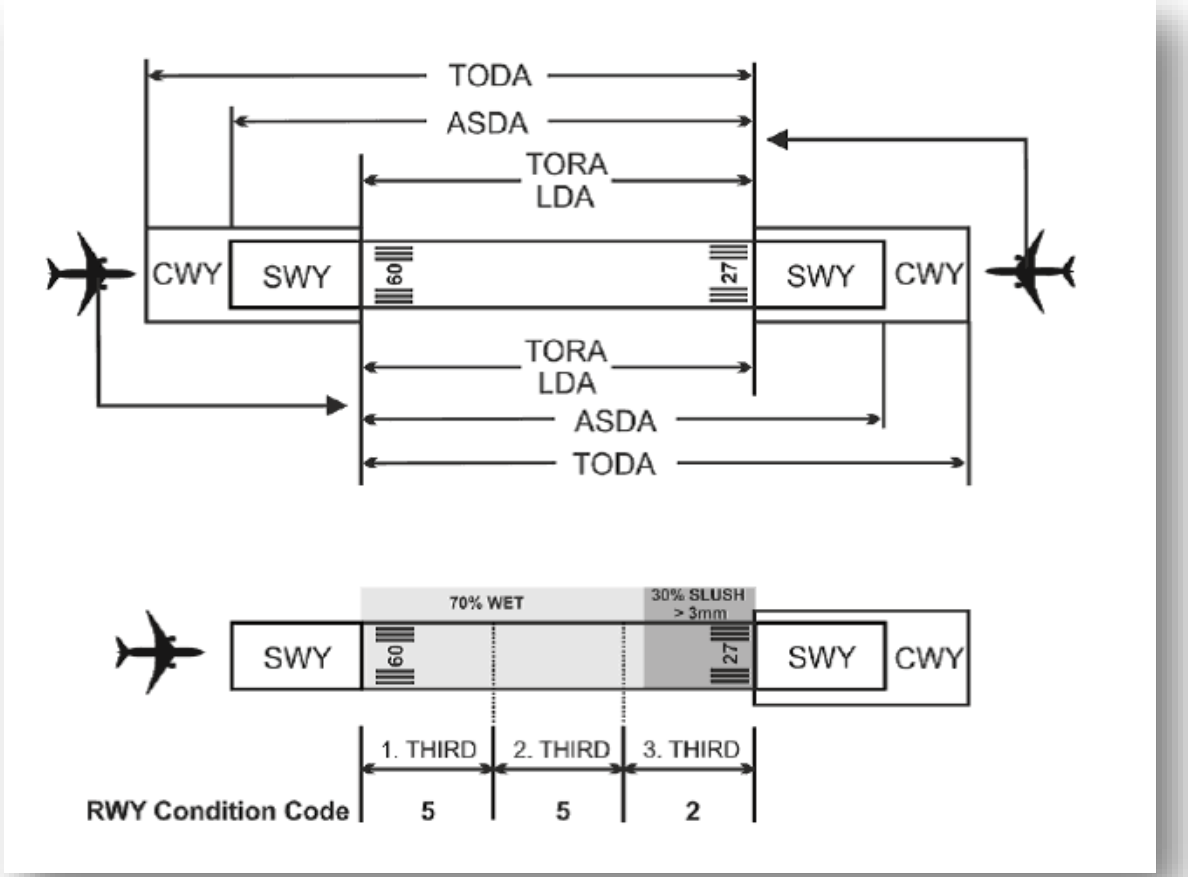
Downgrade assessment criteria

Aeroplane deceleration or directional control observation	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal	Braking deceleration OR directional control is between good and medium	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced	Braking deceleration OR directional control is between medium and poor	Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced	Braking deceleration is minimal to non-existent for the wheel raking effort applied OR directional control is uncertain
AIREP	GOOD	GOOD TO MEDIUM	MEDIUM	MEDIUM TO POOR	POOR	LESS THAN POOR
RWYCC	5	4	3	2	1	0

1 Runway surface temperature should preferably be used where available.
2 The aerodrome operator may assign a higher RWYCC (but no higher than RWYCC 3) for each third of the runway, provided the procedure in PANS-Aerodromes (Doc 9981),1.1.3.15, is followed.
3 The runway surface condition descriptor is "WATER OF TOP OF COMPACTED SNOW". "WATER" is not reportable on its own.

Evaluation of the Runway is carried out by Airport Operations with the help of the Runway Condition Assessment Matrix (RCAM)

Runway Surface Conditions – RWY Third Analyses

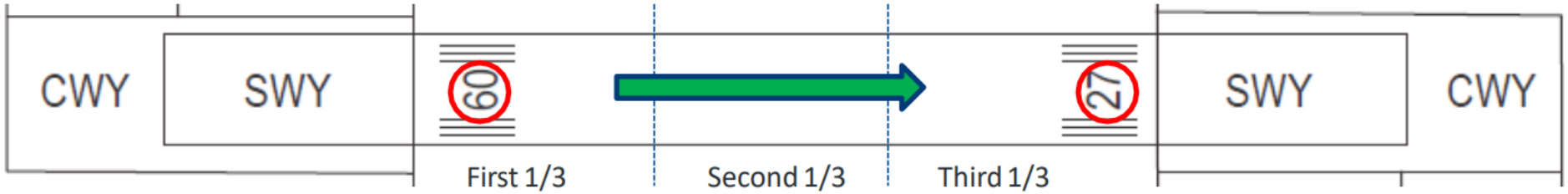


Runway Surface Conditions - Contaminated Runway

STANDING WATER

- Water of a depth more than 3 mm is defined as standing water
- The RWYCC for Standing Water is 2.

REPORTING



- A RWYCC is reported for each runway third in the format of n/n/n
- The percentage of the runway covered by contaminants, contaminant depth and contaminant type should also be reported for each runway third
- Runway thirds should reflect the entire usable pavement length of the runway, inclusive of displaced threshold
- The direction for listing the runway thirds should be in the direction as seen from the lower runway designation number

Runway Surface Conditions - Contaminated Runway

Contaminated Runway Reporting

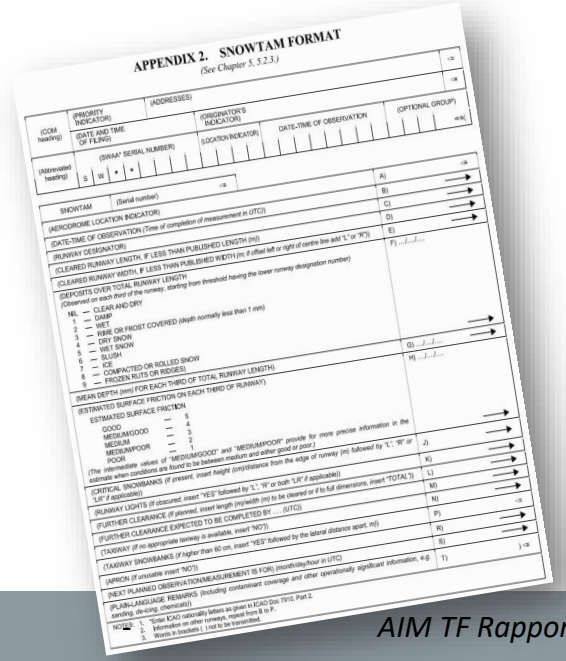
- Mud, ash, sand and oil are also examples or reportable contaminants.
- However there is insufficient of varying data on their impact on aircraft performance
- Therefore, RCC are not reported for these contaminants – rather, they are reported in the plain language remark session of the RCR
- Ash, oil, sand and rubber contaminants should be reported without a measured depth, while the measured depth should be reported for mud.
- An exception is rubber contamination, for which in service data indicates that an assumption of RWYCC 3 restores usual performance margins. .
- Where contaminant depth is not being reported, operator should indicate that no information exists by entering **NR**

Resource: https://www.icao.int/ESAF/Documents/meetings/2020/GRF-Rwanda%202020/Presentations/RCR%201.pdf

Recap on GRF General Information

How does i.e. the Dutch Caribbean (DC) Islands exercise/execute the GRF Implementation?

- When delivering SNOWTAM related data, the data originator (DO) can send the RCR via the email-automated system OR when no application is in place, the DO uses the company "SNOWTAM Request form", fills it out and sends it to the NOF.


APPENDIX 2. SNOWTAM FORMAT

(See Chapter 5, 5.2.3.)

Recap on GRF General Information

How does i.e. the Dutch Caribbean (DC) Islands exercise/execute the GRF Implementation? *(Cont.)*

- The submission is immediately followed by a confirmation phone call to the NOF's
- DO's are encouraged to use an automated system/application, to avoid making unnecessary errors.
- Physical analyses then and therefor remains as a back-up.

Recap on GRF General Information

How does i.e. the Dutch Caribbean (DC) Islands exercise/execute the GRF Implementation? *(Cont.)*

- The NOF confirms receipt once called, reviews the information and:
  1. If the information provided is complete, the NOF publishes the requested immediately and contacts the assigned Control Tower by phone to inform of the published RCR/SNOWTAM;

  2. If the information is incomplete and/or the content has errors, the NOF will contact the DO via phone to quickly inform of the actions needed to be taken by the DO. The DO submits a new request.
     After publication, the NOF sends records the encountered errors in the Watchlog.

- The DO keeps track of the validity of the SNOWTAM published and takes timely action if required *(See the DC eAIP AD 1)*

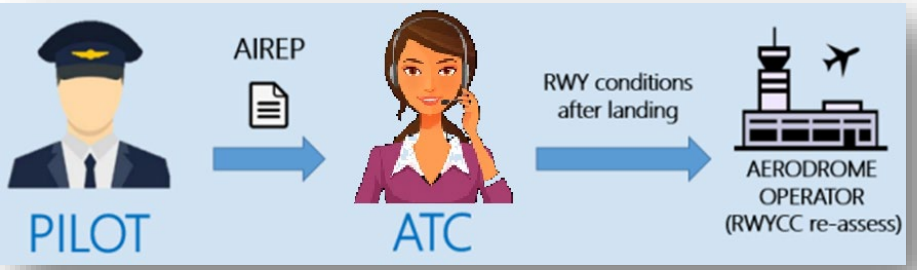
Recap on GRF General Information

Data Originator → Aerodrome OPS:

- **Originates** the information!!!
- **Provides** technical training to Airport Operations Officers as required
- **Assesses** (per third (⅓) section of the RWY) and **Creates the report** for the runway surface conditions
- **Reviews** and **Sends** the Runway Condition Report (RCR) to **AIS / NOTAM Office** (NOF)

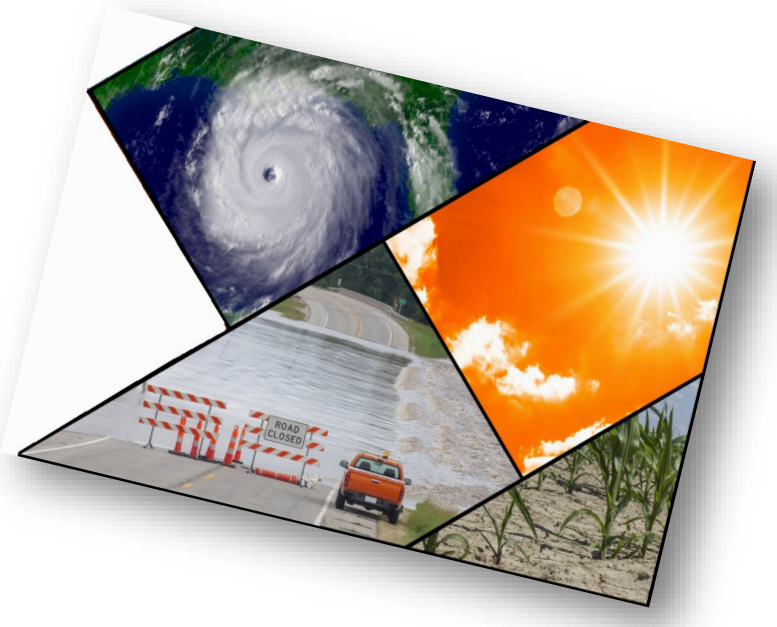
Recap on GRF General Information

- The **NOF issues** the GRF for Runway surface condition → SNOWTAM *(incl. the RCR string);*
- **ATC / Automation** reflects the published info in the ATIS (if applicable);
- **DO maintains** close contact with ATC
  → to reassess the runway if needed, in case Pilots provide feedback (AIREP) to ATC.
  → ATC then in turn informs the AD OPS (DO) of the Pilot's report.
- **DO keeps** the information **up-to-date** and **changes/updates** the condition reported **without delay**!



Recap on GRF General Information

- Every **significant change** in the Runway condition requires a runway condition report to be issued and requires AD operations to do an assessment!
- **Raining? → DO: An assessment is required!**
- A runway assessment should be done **by trained personnel.**
- The **GRF is a safety tool**



Global Reporting Format for Runway Surface Conditions Main stakeholders:

Aerodrome Operators

- → Origin of information (Data Originators)
- → Assess and report runway surface conditions – send RCR to ATS and AIS
- → To issue GRF for Runway surface condition
- → Information shall be kept up to date and changes in condition reported without delay

Aeronautical Information Service (AIS)

- → Provide the information received in the RCR to end users
- → **Report** RCR via NOTAM, when applicable)

Air Traffic Services (ATS)

- → Convey Information from RCR to pilots (via ATIS and/or radio)

Pilots/Aircraft Operators

- → Use information with aircraft performance data to determine if landing or take-off is safe
- → Provide runway braking action special air-report to the aerodrome operator

Recap on GRF General Information

A globally-harmonized methodology for runway surface conditions assessment and reporting to provide reports that are directly related to the performance of aeroplanes.

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

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

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

Aircraft operators utilize the information in conjunction with the performance data provided by the aircraft manufacturer to determine if landing or take-off operations can be conducted safely and provide runway braking action special air-report (AIREP)

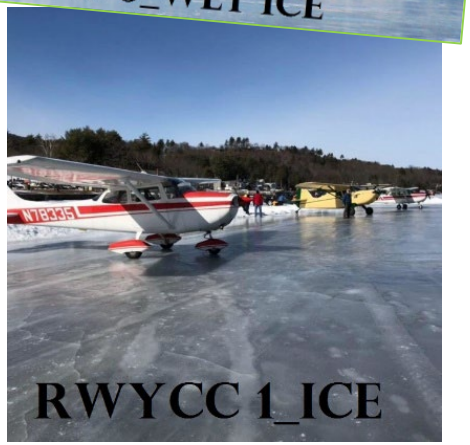
https://www.icao.int/EURNAT/Other%20Meetings%20Seminars%20and%20Workshops/GRF%20Workshop%20(Paris)/GRF%20Wkshp%20PPT02.pdf

ICAO'S Global Reporting Format –

ATCS, ATIS, AIM, AD & SNOWTAM

Global Reporting Format for Runway Surface Conditions

Assessment Criteria		Control/Braking Assessment Criteria	
Runway Condition Description	**RwyCC**	**Deceleration or Directional Control Observation**	**Pilot Reported Braking Action**
• Dry	6	---	---
• Frost • Wet (Includes damp and 1/8 inch depth or less of water) ***1/8 inch (3mm) depth or less of:*** • Slush • Dry Snow • Wet Snow	5	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	Good
-15°C and Colder outside air temperature: • Compacted Snow	4	Braking deceleration OR directional control is between Good and Medium.	Good to Medium
• Slippery When Wet (wet runway) • Dry Snow or Wet Snow (any depth) over Compacted Snow ***Greater than 1/8 inch (3 mm) depth of:*** • Dry Snow • Wet Snow ***Warmer than -15°C outside air temperature:*** • Compacted Snow	3	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	Medium
Greater than 1/8 inch(3 mm) depth of: • Water • Slush	2	Braking deceleration OR directional control is between Medium and Poor.	Medium to Poor
• Ice	1	Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	Poor
• Wet Ice • Slush over Ice • Water over Compacted Snow • Dry Snow or Wet Snow over Ice	0	Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	Nil



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Recap on GRF General Information

Applicable RwyCC for our Region

Assessment Criteria		Control/Braking Assessment Criteria	
Runway Condition Description	**RwyCC**	**Deceleration or Directional Control Observation**	**Pilot Reported Braking Action**
• Dry	6	---	---
• Frost • Wet (Includes damp and 1/8 inch depth or less of water) ***1/8 inch (3mm) depth or less of:*** • Slush • Dry Snow • Wet Snow	5	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	Good
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RWYCC	Descriptor
6	DRY
5	WET
3	(SLIPPERY) WET
2	STANDING WATER

05:00

Start Stop Reset mins: 5 secs: 0 type:

None

Breaktime for PowerPoint by Flow Simulation Ltd. Pin controls when stopped

Global Reporting Format
GRF: RwyCC & SNOWTAM Preps Workshop

SNOTAM

- **Definition**

  ICAO defines **SNOWTAM** as a special series NOTAM given in a standard format providing a surface condition report 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 (Annex 15 Chapter 2).

- **Description**

  A SNOWTAM will be issued by the airport authority, promulgated by the NOF, when warranted, to notify users of the presence of, or the removal of, hazardous conditions due to snow, ice, slush or the resulting standing water on the movement surfaces of the aerodrome.

- The **maximum validity period** for a SNOWTAM, as per NOV 4th 2021, is 8 hours and a new SNOWTAM will be issued whenever there is a significant change in conditions.

Recap on GRF General Information

ATCS, ATIS, AIM, AD & SNOWTAM

APPENDIX 2. SNOWTAM FORMAT

(see Chapter 5, 5.2.3)

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

SNOWTAM (Serial number) →		
(AERODROME LOCATION INDICATOR)	A)	→
(DATE/TIME OF OBSERVATION *(Time of completion of measurement in UTC)*)	B)	→
(RUNWAY DESIGNATORS)	C)	→
(CLEARED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH *(m)*)	D)	→
(CLEARED RUNWAY WIDTH, IF LESS THAN PUBLISHED WIDTH *(m; if offset left or right of centre line add "L" or "R")*)	E)	→
(DEPOSITS OVER TOTAL RUNWAY LENGTH *(Observed on each third of the runway, starting from threshold having the lower runway designation number)* NIL — CLEAR AND DRY 1 — DAMP 2 — WET or water patches 3 — RIME OR FROST COVERED *(depth normally less than 1 mm)* 4 — DRY SNOW 5 — WET SNOW 6 — SLUSH 7 — ICE 8 — COMPACTED OR ROLLED SNOW 9 — FROZEN RUTS OR RIDGES)	F)	→
(MEAN DEPTH *(mm)* FOR EACH THIRD OF TOTAL RUNWAY LENGTH)	G)	→
(FRICTION MEASUREMENTS ON EACH THIRD OF RUNWAY AND FRICTION MEASURING DEVICE MEASURED OR CALCULATED COEFFICIENT *or* ESTIMATED SURFACE FRICTION 0.40 and above — GOOD — 5 0.39 to 0.36 — MEDIUM/GOOD — 4 0.35 to 0.30 — MEDIUM — 3 0.29 to 0.26 — MEDIUM/POOR — 2 0.25 and below — POOR — 1 9 — unreliable — UNRELIABLE — 9 *(When quoting a measured coefficient, use the observed two figures, followed by the abbreviation of the friction measuring device used. When quoting an estimate, use single digit)*)	H)	→
(CRITICAL SNOWBANKS *(If present, insert height (cm)/distance from the edge of runway (m) followed by "L", "R" or "LR" if applicable)*)	J)	→
(RUNWAY LIGHTS *(If obscured, insert "YES" followed by "L", "R" or both "LR" if applicable)*)	K)	→
(FURTHER CLEARANCE *(If planned, insert length (m)/width (m) to be cleared or if to full dimensions, insert "TOTAL")*)	L)	→
(FURTHER CLEARANCE EXPECTED TO BE COMPLETED BY . . . *(UTC)*)	M)	→
(TAXIWAY *(If no appropriate taxiway is available, insert "NO")*)	N)	→
(TAXIWAY SNOWBANKS *(If more than 60 cm, insert "YES" followed by distance apart, m)*)	P)	→
(APRON *(If unusable insert "NO")*)	R)	→
(NEXT PLANNED OBSERVATION/MEASUREMENT IS FOR) *(month/day/hour in UTC)*	S)	→
(PLAIN-LANGUAGE REMARKS *(Including contaminant coverage and other operationally significant information, e.g. sanding, de-icing)*)	T)	)≪≡

NOTES: 1. *Enter ICAO nationality letters as given in ICAO Doc 7910, Part 2.
2. Information on other runways, repeat from C to P.
3. Words in brackets ( ) not to be transmitted.

SIGNATURE OF ORIGINATOR *(not for transmission)*

Format and Decode

A typical SNOWTAM will consist of a header block, which contains the addressees, the date and time of issue and the SNOWTAM serial number, and the body of the SNOWTAM which contains all of the pertinent airfield information. The airfield information is consistently formatted as items A) through T) as follows:

A. AERODROME IDENTIFIER
B. DATE/TIME OF OBSERVATION (UTC)
C. RUNWAY DESIGNATOR
D. CLEARED RUNWAY LENGTH (if less than published length)
E. CLEARED RUNWAY WIDTH (if less than published width)
F. DEPOSITS OVER TOTAL RUNWAY LENGTH (Observed on each third of the runway)
G. MEAN DEPTH OF DEPOSITS (mm) (for each third of total runway length)
H. FRICTION MEASUREMENTS OR ESTIMATES (for each third of runway length)
I. not used
J. CRITICAL SNOWBANKS (if present)
K. RUNWAY LIGHTS (if obscured)
L. FURTHER CLEARING OPERATIONS (if planned)
M. FURTHER CLEARANCE EXPECTED TO BE COMPLETED BY . . . (UTC)
N. TAXIWAY
O. not used
P. TAXIWAY SNOWBANKS
Q. not used
R. APRON
S. NEXT PLANNED OBSERVATION/MEASUREMENT
T. PLAIN LANGUAGE REMARKS

Any items not pertinent to existing conditions will not be included in the report. For aerodromes with more than one runway, items C) through P) will be repeated in ascending order of runway identifier. For contaminate codes, friction measurement device codes and complete format and decode information, see ICAO Annex 15, Appendix 2.

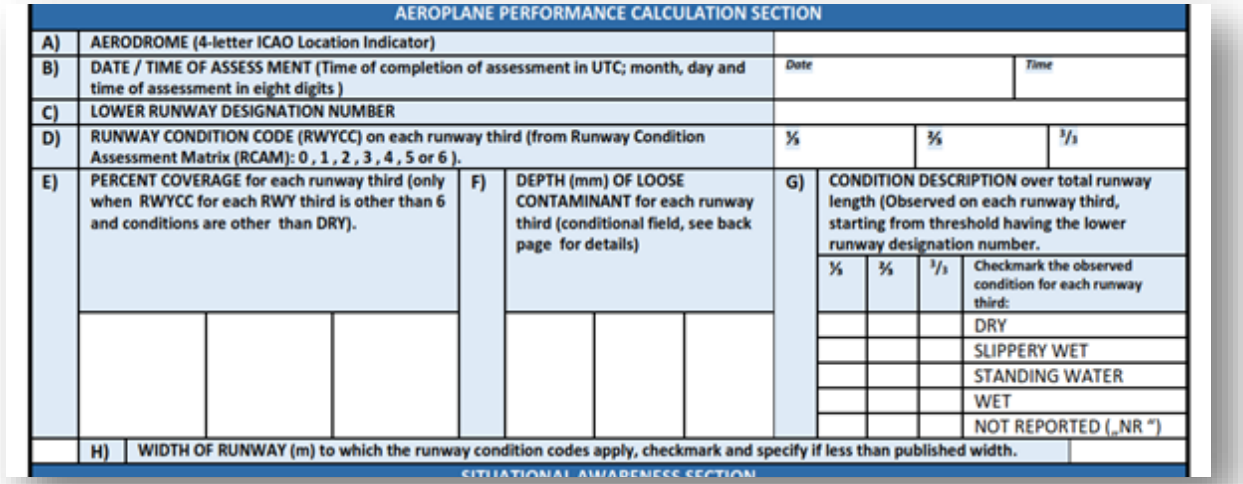
Runway Surface Conditions – RCR SNOWTAM REQ

Aeroplane performance calculation section

- Aerodrome location indicator (**mandatory**):
  Four-letter ICAO location indicator in accordance with Doc 7910, Location Indicators.
  Format: nnnn → Example: MKJP

- Date and time of assessment (**mandatory**):
  date and time (UTC) when the assessment was performed by the trained personnel.
  Format: MMDDhhmm
  Example: 09111357

- Lower runway designation number (**mandatory**):
  a two- or three-character number identifying the runway for which the assessment is carried out and reported.
  Format: nn[L] or nn[C] or nn[R]
  Example: 09L

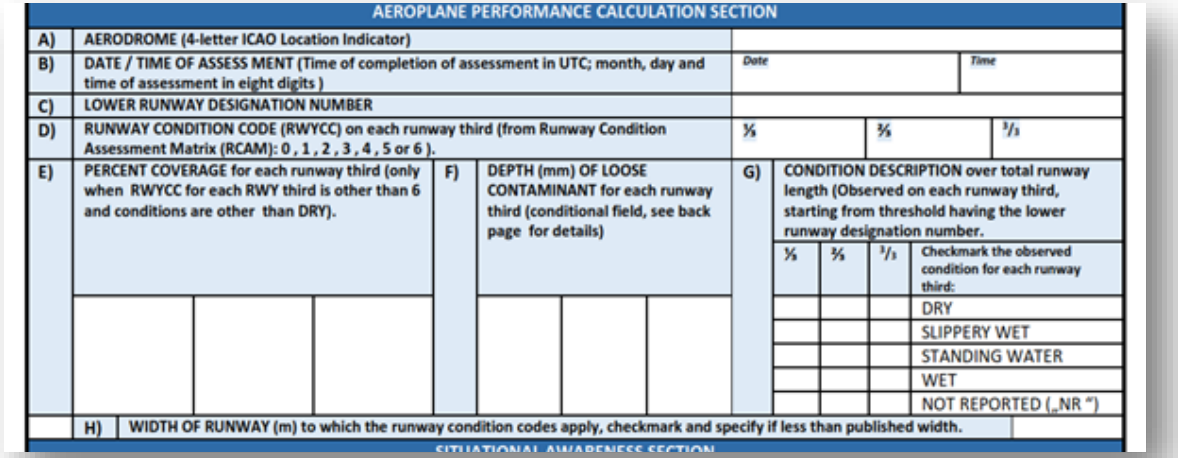


AEROPLANE PERFORMANCE CALCULATION SECTION										
A)	AERODROME (4-letter ICAO Location Indicator)									
B)	DATE / TIME OF ASSESS MENT (Time of completion of assessment in UTC; month, day and time of assessment in eight digits)						Date		Time	
C)	LOWER RUNWAY DESIGNATION NUMBER									
D)	RUNWAY CONDITION CODE (RWYCC) on each runway third (from Runway Condition Assessment Matrix (RCAM): 0 , 1 , 2 , 3 , 4 , 5 or 6).						⅓		⅔	⅓
E)	PERCENT COVERAGE for each runway third (only when RWYCC for each RWY third is other than 6 and conditions are other than DRY).			F)	DEPTH (mm) OF LOOSE CONTAMINANT for each runway third (conditional field, see back page for details)		G)	CONDITION DESCRIPTION over total runway length (Observed on each runway third, starting from threshold having the lower runway designation number.		
								⅓	⅓	⅓ Checkmark the observed condition for each runway third:
										DRY
										SLIPPERY WET
										STANDING WATER
										WET
										NOT REPORTED („NR “)
	H)	WIDTH OF RUNWAY (m) to which the runway condition codes apply, checkmark and specify if less than published width.								
SITUATIONAL AWARENESS SECTION										

Runway Surface Conditions – RCR SNOWTAM REQ

Aeroplane performance calculation section

- Runway condition code for each runway third (**mandatory**):
  a one-digit number identifying the RWYCC assessed for each runway third. The codes are reported in a three-character group separated by a "/" for each third. The direction for listing the runway thirds shall be in the direction as seen from the lower designation number.
  Format: n/n/n
  Example: 5/5/2



AEROPLANE PERFORMANCE CALCULATION SECTION											
A)	AERODROME (4-letter ICAO Location Indicator)										
B)	DATE / TIME OF ASSESS MENT (Time of completion of assessment in UTC; month, day and time of assessment in eight digits)						Date			Time	
C)	LOWER RUNWAY DESIGNATION NUMBER										
D)	RUNWAY CONDITION CODE (RWYCC) on each runway third (from Runway Condition Assessment Matrix (RCAM): 0 , 1 , 2 , 3 , 4 , 5 or 6).						⅓		⅔		³/₃
E)	PERCENT COVERAGE for each runway third (only when RWYCC for each RWY third is other than 6 and conditions are other than DRY).			F)	DEPTH (mm) OF LOOSE CONTAMINANT for each runway third (conditional field, see back page for details)			G)	CONDITION DESCRIPTION over total runway length (Observed on each runway third, starting from threshold having the lower runway designation number.		
									⅓	⅔	³/₃
											DRY
											SLIPPERY WET
											STANDING WATER
											WET
											NOT REPORTED („NR ")
	H)	WIDTH OF RUNWAY (m) to which the runway condition codes apply, checkmark and specify if less than published width.									
SITUATIONAL AWARENESS SECTION											

Note: When transmitting information on runway surface conditions by ATS to flight crews, the sections are, however, referred to as the first, second or third part of the runway. ***The first part always means the first third of the runway as seen in the direction of landing or take-off***

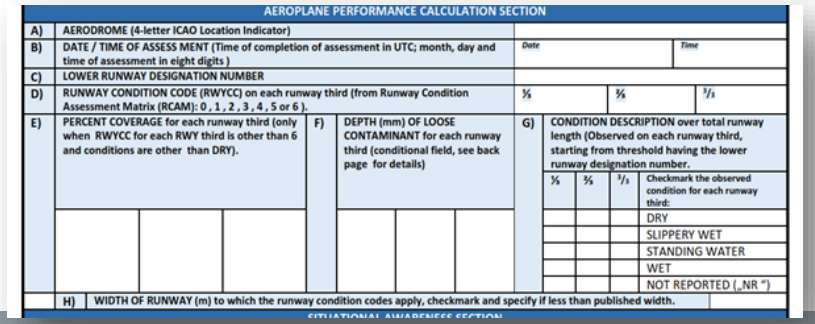
Runway Surface Conditions – RCR SNOWTAM REQ

Aeroplane performance calculation section

- Per cent coverage contaminant for each runway third (**conditional**, not reported for one runway third if it is dry or covered with less than 10%):
  a number identifying the percentage coverage. The percentages are to be reported in an up-to-nine character group separated by a "/" for each runway third.
  Format: [n]nn/[n]nn/[n]nn
  Example: 25/50/100
  NR/50/100 if contaminant coverage is less than 10% in the first third

- With uneven distribution of the contaminants, additional information is to be given in the plain language remark part of the situational awareness section of the runway condition report. Where possible, a standardized text should be used.

Note.— 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/).



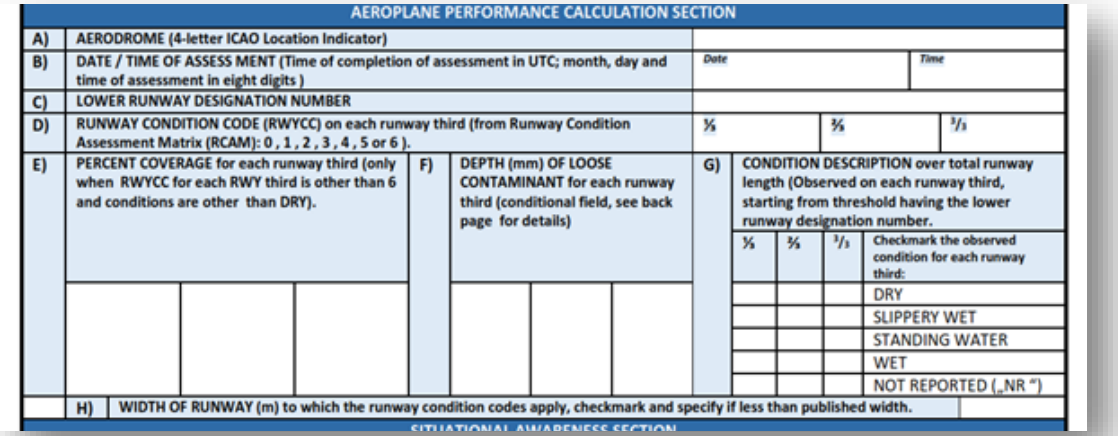
AEROPLANE PERFORMANCE CALCULATION SECTION										
A)	AERODROME (4-letter ICAO Location Indicator)									
B)	DATE / TIME OF ASSESS MENT (Time of completion of assessment in UTC; month, day and time of assessment in eight digits)					Date			Time	
C)	LOWER RUNWAY DESIGNATION NUMBER									
D)	RUNWAY CONDITION CODE (RWYCC) on each runway third (from Runway Condition Assessment Matrix (RCAM): 0 , 1 , 2 , 3 , 4 , 5 or 6).					⅓		⅔		³/₃
E)	PERCENT COVERAGE for each runway third (only when RWYCC for each RWY third is other than 6 and conditions are other than DRY).			F)	DEPTH (mm) OF LOOSE CONTAMINANT for each runway third (conditional field, see back page for details)			G)	CONDITION DESCRIPTION over total runway length (Observed on each runway third, starting from threshold having the lower runway designation number.	
									⅓	⅔	³/₃	Checkmark the observed condition for each runway third:
												DRY
												SLIPPERY WET
												STANDING WATER
												WET
												NOT REPORTED („NR ")
	H)	WIDTH OF RUNWAY (m) to which the runway condition codes apply, checkmark and specify if less than published width.										
SITUATIONAL AWARENESS SECTION												

Runway Surface Conditions – RCR SNOWTAM REQ

Aeroplane performance calculation section

- Depth of loose contaminant:
  dry snow, wet snow, slush or standing water for each runway third (**conditional**, reported for STANDING WATER):
  a twoor three-digit number representing the assessed depth (mm) of the contaminant for each runway third.
  Format: [n]nn/[n]nn/[n]nn
  Examples: 04/06/12 [STANDING WATER]

- When the depth of the contaminants varies significantly within a runway third, additional information is to be given in the plain language remark part of the situational awareness section of the runway condition report.).



AEROPLANE PERFORMANCE CALCULATION SECTION										
A)	AERODROME (4-letter ICAO Location Indicator)									
B)	DATE / TIME OF ASSESS MENT (Time of completion of assessment in UTC; month, day and time of assessment in eight digits)						Date		Time	
C)	LOWER RUNWAY DESIGNATION NUMBER									
D)	RUNWAY CONDITION CODE (RWYCC) on each runway third (from Runway Condition Assessment Matrix (RCAM): 0 , 1 , 2 , 3 , 4 , 5 or 6).						⅓		⅔	⅓
E)	PERCENT COVERAGE for each runway third (only when RWYCC for each RWY third is other than 6 and conditions are other than DRY).			F)	DEPTH (mm) OF LOOSE CONTAMINANT for each runway third (conditional field, see back page for details)			G)	CONDITION DESCRIPTION over total runway length (Observed on each runway third, starting from threshold having the lower runway designation number.	
									⅓	⅔	⅓	Checkmark the observed condition for each runway third:
												DRY
												SLIPPERY WET
												STANDING WATER
												WET
												NOT REPORTED („NR “)
	H)	WIDTH OF RUNWAY (m) to which the runway condition codes apply, checkmark and specify if less than published width.										
SITUATIONAL AWARENESS SECTION												

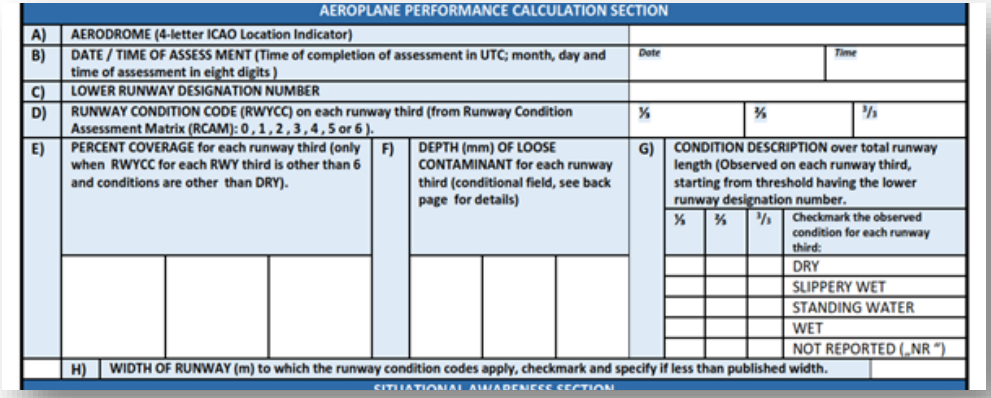
Runway Surface Conditions – RCR SNOWTAM REQ

Aeroplane performance calculation section

- Condition description for each runway third (**mandatory**):
  to be reported in capital letters using terms specified in 2.9.5 of Annex 14, Volume I. The condition type is reported by any of the following condition type descriptions for each runway third and separated by an oblique stroke "/".
  (DRY, STANDING WATER, WET, …)
  Format: nnnn/nnnn/nnnn
  Example: WET/WET/WET

- Width of runway to which the RWYCCs apply if less than published width (optional): a the two-digit number representing the width of cleared runway in meters.
  Format: nn
  Example: 30

- If the cleared runway width is not symmetrical along the center line, additional information is to be given in the plain language remark
  part of the situational awareness section
  of the runway condition report.



AEROPLANE PERFORMANCE CALCULATION SECTION										
A)	AERODROME (4-letter ICAO Location Indicator)									
B)	DATE / TIME OF ASSESS MENT (Time of completion of assessment in UTC; month, day and time of assessment in eight digits)					Date			Time	
C)	LOWER RUNWAY DESIGNATION NUMBER									
D)	RUNWAY CONDITION CODE (RWYCC) on each runway third (from Runway Condition Assessment Matrix (RCAM): 0 , 1 , 2 , 3 , 4 , 5 or 6).					⅓		⅓		⅓
E)	PERCENT COVERAGE for each runway third (only when RWYCC for each RWY third is other than 6 and conditions are other than DRY).			F)	DEPTH (mm) OF LOOSE CONTAMINANT for each runway third (conditional field, see back page for details)			G)	CONDITION DESCRIPTION over total runway length (Observed on each runway third, starting from threshold having the lower runway designation number.	
									⅓	⅓	⅓	Checkmark the observed condition for each runway third:
												DRY
												SLIPPERY WET
												STANDING WATER
												WET
												NOT REPORTED („NR ")
	H)	WIDTH OF RUNWAY (m) to which the runway condition codes apply, checkmark and specify if less than published width.										
SITUATIONAL AWARENESS SECTION												

Runway Surface Conditions – RCR SNOWTAM REQ

Aeroplane performance calculation section

AEROPLANE PERFORMANCE CALCULATION SECTION								
A)	AERODROME (4-letter ICAO Location Indicator)							
B)	DATE / TIME OF ASSESS MENT (Time of completion of assessment in UTC; month, day and time of assessment in eight digits)	Date			Time			
C)	LOWER RUNWAY DESIGNATION NUMBER							
D)	RUNWAY CONDITION CODE (RWYCC) on each runway third (from Runway Condition Assessment Matrix (RCAM): 0 , 1 , 2 , 3 , 4 , 5 or 6).	⅓		⅔		⅓		
E)	PERCENT COVERAGE for each runway third (only when RWYCC for each RWY third is other than 6 and conditions are other than DRY).	F)	DEPTH (mm) OF LOOSE CONTAMINANT for each runway third (conditional field, see back page for details)	G)	CONDITION DESCRIPTION over total runway length (Observed on each runway third, starting from threshold having the lower runway designation number.			
					⅓	⅔	⅓	Checkmark the observed condition for each runway third:
								DRY
								SLIPPERY WET
								STANDING WATER
								WET
								NOT REPORTED („NR ")
	H)	WIDTH OF RUNWAY (m) to which the runway condition codes apply, checkma						

AEROPLANE PERFORMANCE CALCULATION SECTION (8)		
1	aerodrome location indicator	M
2	date and time of assessment	M
3	lower runway designation number	M
4	RWYCC for each runway third	M
5	per cent coverage contaminant for each runway third (NR if dry/<10%)	C
6	depth of loose contaminant for each runway third (only if STANDING WATER)	C
7	condition description for each runway third; and	M
8	width of runway to which the RWYCCs apply if less than published width.	O

Runway Surface Conditions – RCR SNOWTAM REQ

Situational awareness section

All individual messages in the situational awareness section end with a full stop sign. This is to distinguish the message from subsequent message(s).

- Reduced runway length: This information is **conditional** when a NOTAM has been published with a new set of declared distances affecting the LDA.
  Format: Standardized fixed text
  RWY nn [L] or nn [C] or nn [R] LDA REDUCED TO[n]nnn
  Example: RWY 22L LDA REDUCED TO1450.

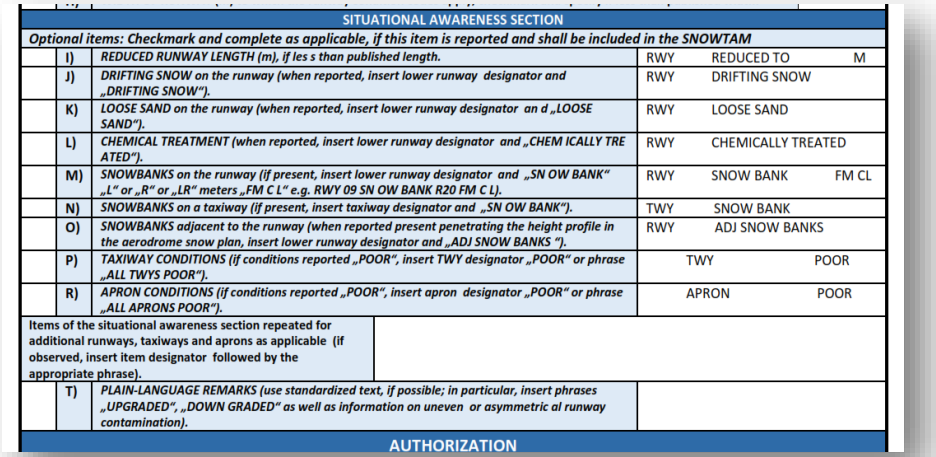
SITUATIONAL AWARENESS SECTION					
Optional items: Checkmark and complete as applicable, if this item is reported and shall be included in the SNOWTAM					
	I)	*REDUCED RUNWAY LENGTH (m), if les s than published length.*	RWY	REDUCED TO	M
	J)	*DRIFTING SNOW on the runway (when reported, insert lower runway designator and „DRIFTING SNOW“).*	RWY	DRIFTING SNOW	
	K)	*LOOSE SAND on the runway (when reported, insert lower runway designator an d „LOOSE SAND“).*	RWY	LOOSE SAND	
	L)	*CHEMICAL TREATMENT (when reported, insert lower runway designator and „CHEM ICALLY TRE ATED“).*	RWY	CHEMICALLY TREATED	
	M)	*SNOWBANKS on the runway (if present, insert lower runway designator and „SN OW BANK“ „L“ or „R“ or „LR“ meters „FM C L“ e.g. RWY 09 SN OW BANK R20 FM C L).*	RWY	SNOW BANK	FM CL
	N)	*SNOWBANKS on a taxiway (if present, insert taxiway designator and „SN OW BANK“).*	TWY	SNOW BANK	
	O)	*SNOWBANKS adjacent to the runway (when reported present penetrating the height profile in the aerodrome snow plan, insert lower runway designator and „ADJ SNOW BANKS “).*	RWY	ADJ SNOW BANKS	
	P)	*TAXIWAY CONDITIONS (if conditions reported „POOR“, insert TWY designator „POOR“ or phrase „ALL TWYS POOR“).*		TWY	POOR
	R)	*APRON CONDITIONS (if conditions reported „POOR“, insert apron designator „POOR“ or phrase „ALL APRONS POOR“).*		APRON	POOR
Items of the situational awareness section repeated for additional runways, taxiways and aprons as applicable (if observed, insert item designator followed by the appropriate phrase).					
	T)	*PLAIN-LANGUAGE REMARKS (use standardized text, if possible; in particular, insert phrases „UPGRADED“, „DOWN GRADED“ as well as information on uneven or asymmetric al runway contamination).*			
AUTHORIZATION					

Runway Surface Conditions – RCR SNOWTAM REQ

Situational awareness section

- Loose sand on the runway (**optional**):
  Format: RWY nn[L] or nn[C] or nn[R] LOOSESAND
  Example: RWY 02R LOOSE SAND.

- Chemical treatment on the runway (**mandatory**):
  Format: RWY nn[L] or nn[C] or nn[R] CHEMICALLYTREATED
  Example: RWY 06 CHEMICALLYTREATED.



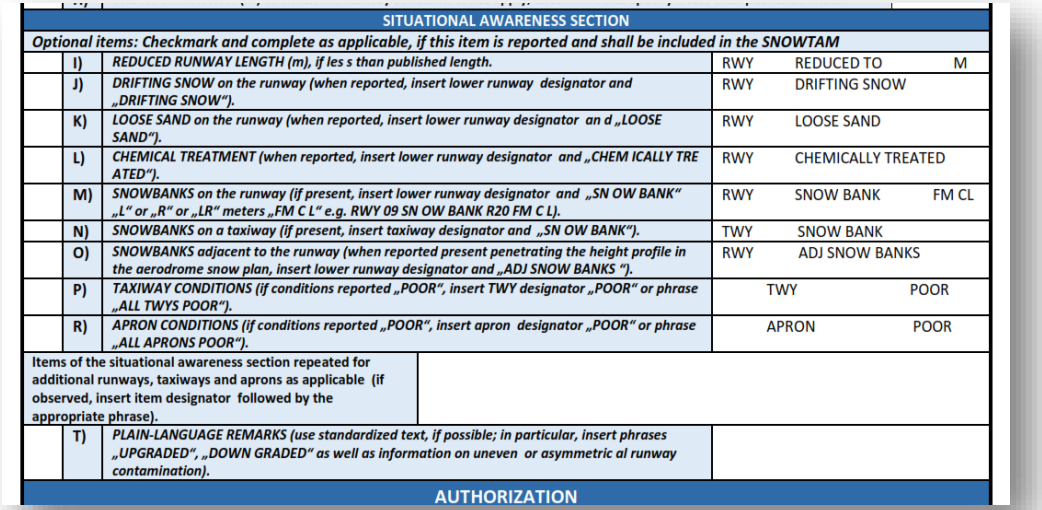
SITUATIONAL AWARENESS SECTION					
Optional items: Checkmark and complete as applicable, if this item is reported and shall be included in the SNOWTAM					
	I)	*REDUCED RUNWAY LENGTH (m), if les s than published length.*	RWY	REDUCED TO	M
	J)	*DRIFTING SNOW on the runway (when reported, insert lower runway designator and „DRIFTING SNOW“).*	RWY	DRIFTING SNOW	
	K)	*LOOSE SAND on the runway (when reported, insert lower runway designator an d „LOOSE SAND“).*	RWY	LOOSE SAND	
	L)	*CHEMICAL TREATMENT (when reported, insert lower runway designator and „CHEM ICALLY TRE ATED“).*	RWY	CHEMICALLY TREATED	
	M)	*SNOWBANKS on the runway (if present, insert lower runway designator and „SN OW BANK“ „L“ or „R“ or „LR“ meters „FM C L“ e.g. RWY 09 SN OW BANK R20 FM C L).*	RWY	SNOW BANK	FM CL
	N)	*SNOWBANKS on a taxiway (if present, insert taxiway designator and „SN OW BANK“).*	TWY	SNOW BANK	
	O)	*SNOWBANKS adjacent to the runway (when reported present penetrating the height profile in the aerodrome snow plan, insert lower runway designator and „ADJ SNOW BANKS “).*	RWY	ADJ SNOW BANKS	
	P)	*TAXIWAY CONDITIONS (if conditions reported „POOR“, insert TWY designator „POOR“ or phrase „ALL TWYS POOR“).*	TWY		POOR
	R)	*APRON CONDITIONS (if conditions reported „POOR“, insert apron designator „POOR“ or phrase „ALL APRONS POOR“).*	APRON		POOR
Items of the situational awareness section repeated for additional runways, taxiways and aprons as applicable (if observed, insert item designator followed by the appropriate phrase).					
	T)	*PLAIN-LANGUAGE REMARKS (use standardized text, if possible; in particular, insert phrases „UPGRADED“, „DOWN GRADED“ as well as information on uneven or asymmetric al runway contamination).*			
AUTHORIZATION					

Runway Surface Conditions – RCR SNOWTAM REQ

Situational awareness section (*Cont.*)

- Taxiway conditions (**optional**):
  Format: TWY [nn]nPOOR
  Example: TWY B POOR.

- Apron conditions (**optional**)
  Format: APRON [nnnn]POOR
  Example: APRON NORTH POOR.



SITUATIONAL AWARENESS SECTION					
Optional items: Checkmark and complete as applicable, if this item is reported and shall be included in the SNOWTAM					
	I)	*REDUCED RUNWAY LENGTH (m), if les s than published length.*	RWY	REDUCED TO	M
	J)	*DRIFTING SNOW on the runway (when reported, insert lower runway designator and „DRIFTING SNOW“).*	RWY	DRIFTING SNOW	
	K)	*LOOSE SAND on the runway (when reported, insert lower runway designator an d „LOOSE SAND“).*	RWY	LOOSE SAND	
	L)	*CHEMICAL TREATMENT (when reported, insert lower runway designator and „CHEM ICALLY TRE ATED“).*	RWY	CHEMICALLY TREATED	
	M)	*SNOWBANKS on the runway (if present, insert lower runway designator and „SN OW BANK“ „L“ or „R“ or „LR“ meters „FM C L“ e.g. RWY 09 SN OW BANK R20 FM C L).*	RWY	SNOW BANK	FM CL
	N)	*SNOWBANKS on a taxiway (if present, insert taxiway designator and „SN OW BANK“).*	TWY	SNOW BANK	
	O)	*SNOWBANKS adjacent to the runway (when reported present penetrating the height profile in the aerodrome snow plan, insert lower runway designator and „ADJ SNOW BANKS “).*	RWY	ADJ SNOW BANKS	
	P)	*TAXIWAY CONDITIONS (if conditions reported „POOR“, insert TWY designator „POOR“ or phrase „ALL TWYS POOR“).*		TWY	POOR
	R)	*APRON CONDITIONS (if conditions reported „POOR“, insert apron designator „POOR“ or phrase „ALL APRONS POOR“).*		APRON	POOR
Items of the situational awareness section repeated for additional runways, taxiways and aprons as applicable (if observed, insert item designator followed by the appropriate phrase).					
	T)	*PLAIN-LANGUAGE REMARKS (use standardized text, if possible; in particular, insert phrases „UPGRADED“, „DOWN GRADED“ as well as information on uneven or asymmetric al runway contamination).*			
AUTHORIZATION					

- State-approved and published use of measured friction coefficient (**optional**):
  Format: [State set format and associated procedures]
  Example: [Function of State set format and associated procedures].

Runway Surface Conditions – RCR SNOWTAM REQ

Situational awareness section

- Plain language remarks using only allowable characters in capital letters (**optional**):
  Format: Combination of allowable characters where use of full stop « . » marks the end of the message.

- Allowable characters:
  - A B C D E F G H I J K LM N O P Q R S T U V W X Y Z
  - 0 1 2 3 4 5 6 7 8 9
  - / [oblique stroke] "." [period]" "[space]

SITUATIONAL AWARENESS SECTION					
Optional items: Checkmark and complete as applicable, if this item is reported and shall be included in the SNOWTAM					
	I)	*REDUCED RUNWAY LENGTH (m), if les s than published length.*	RWY	REDUCED TO	M
	J)	*DRIFTING SNOW on the runway (when reported, insert lower runway designator and „DRIFTING SNOW").*	RWY	DRIFTING SNOW	
	K)	*LOOSE SAND on the runway (when reported, insert lower runway designator an d „LOOSE SAND").*	RWY	LOOSE SAND	
	L)	*CHEMICAL TREATMENT (when reported, insert lower runway designator and „CHEM ICALLY TRE ATED").*	RWY	CHEMICALLY TREATED	
	M)	*SNOWBANKS on the runway (if present, insert lower runway designator and „SN OW BANK" „L" or „R" or „LR" meters „FM C L" e.g. RWY 09 SN OW BANK R20 FM C L).*	RWY	SNOW BANK	FM CL
	N)	*SNOWBANKS on a taxiway (if present, insert taxiway designator and „SN OW BANK").*	TWY	SNOW BANK	
	O)	*SNOWBANKS adjacent to the runway (when reported present penetrating the height profile in the aerodrome snow plan, insert lower runway designator and „ADJ SNOW BANKS ").*	RWY	ADJ SNOW BANKS	
	P)	*TAXIWAY CONDITIONS (if conditions reported „POOR", insert TWY designator „POOR" or phrase „ALL TWYS POOR").*		TWY	POOR
	R)	*APRON CONDITIONS (if conditions reported „POOR", insert apron designator „POOR" or phrase „ALL APRONS POOR").*		APRON	POOR
Items of the situational awareness section repeated for additional runways, taxiways and aprons as applicable (if observed, insert item designator followed by the appropriate phrase).					
	T)	*PLAIN-LANGUAGE REMARKS (use standardized text, if possible; in particular, insert phrases „UPGRADED", „DOWN GRADED" as well as information on uneven or asymmetric al runway contamination).*			
AUTHORIZATION					

Runway Surface Conditions – RCR SNOWTAM REQ

Situational awareness section

SITUATIONAL AWARENESS SECTION					
Optional items: Checkmark and complete as applicable, if this item is reported and shall be included in the SNOWTAM					
	I)	*REDUCED RUNWAY LENGTH (m), if les s than published length.*	RWY	REDUCED TO	M
	J)	*DRIFTING SNOW on the runway (when reported, insert lower runway designator and „DRIFTING SNOW").*	RWY	DRIFTING SNOW	
	K)	*LOOSE SAND on the runway (when reported, insert lower runway designator an d „LOOSE SAND").*	RWY	LOOSE SAND	
	L)	*CHEMICAL TREATMENT (when reported, insert lower runway designator and „CHEM ICALLY TRE ATED").*	RWY	CHEMICALLY TREATED	
	M)	*SNOWBANKS on the runway (if present, insert lower runway designator and „SN OW BANK" „L" or „R" or „LR" meters „FM C L" e.g. RWY 09 SN OW BANK R20 FM C L).*	RWY	SNOW BANK	FM CL
	N)	*SNOWBANKS on a taxiway (if present, insert taxiway designator and „SN OW BANK").*	TWY	SNOW BANK	
	O)	*SNOWBANKS adjacent to the runway (when reported present penetrating the height profile in the aerodrome snow plan, insert lower runway designator and „ADJ SNOW BANKS ").*	RWY	ADJ SNOW BANKS	
	P)	*TAXIWAY CONDITIONS (if conditions reported „POOR", insert TWY designator „POOR" or phrase „ALL TWYS POOR").*		TWY	POOR
	R)	*APRON CONDITIONS (if conditions reported „POOR", insert apron designator „POOR" or phrase „ALL APRONS POOR").*		APRON	POOR
Items of the situational awareness section repeated for additional runways, taxiways and aprons as applicable (if observed, insert item designator followed by the appropriate phrase).					
	T)	*PLAIN-LANGUAGE REMARKS (use standardized text, if possible; in particular, insert phrases „UPGRADED", „DOWN GRADED" as well as information on uneven or asymmetric al runway contamination).*			
AUTHORIZATION					

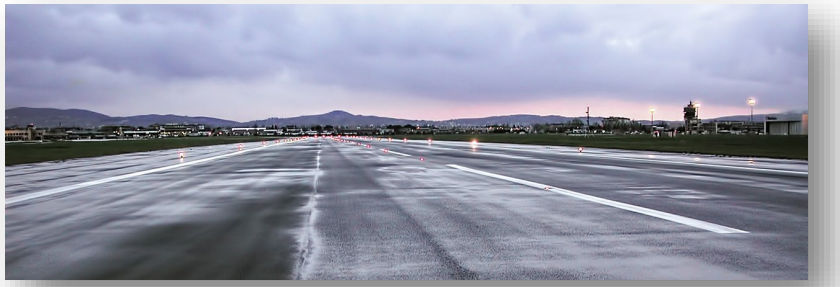
Recap

SITUATIONAL AWARENESS SECTION (11)		
1	reduced runway length (when NOTAM published with new declared distances affecting LDA)	C
2	drifting snow on the runway	O
3	loose sand on the runway	O
4	chemical treatment on the runway	M
5	snowbanks on the runway	O
6	snowbanks on the taxiway	O
7	snowbanks adjacent to the runway	O
8	taxiway conditions	O
9	apron conditions	O
10	State-approved, and published use of, measured friction coefficient; and	O
11	plain language remarks.	O

SNOWTAM General Information

The following **runway condition related changes** are considered **SIGNIFICANT**:

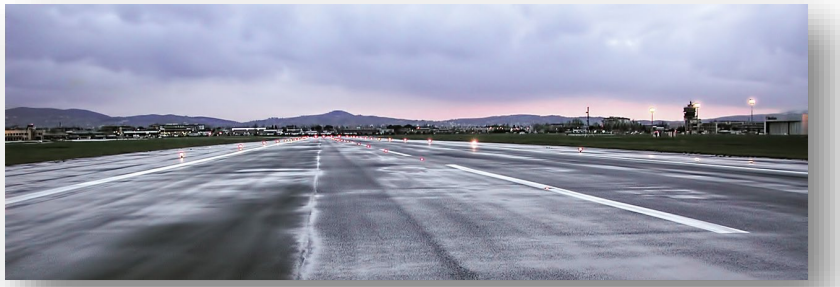
- A change in the coefficient of friction of approximately 0.05.
- Changes in depth of deposit greater than a certain amount of millimeters for i.e. dry snow, wet snow, slush, water.
- A change in the available length or width of a runway of 10 percent or more.
- Any change in the type of deposit or extent of coverage which requires reclassification in Items F or T of the SNOWTAM.



SNOWTAM General Information

The following **runway condition related changes** are considered **SIGNIFICANT**:

- When critical snow banks exist on one or both sides of the runway, any change in the height or distance from center line.
- Any change in the projection of runway lighting caused by obscuring of the lights.
- Any other conditions known to be significant according to experience or local circumstances.



SNOTAMs Requests

Data originator **shall**:

- Comply with set AIM Unit's request procedures (SLA!!!)
- Deliver Accurate data
- Be on time to submit of data
- Always track data validity → DO remains responsible for the validity and content published. ***REVIEW published info always!***
- Ensure an existing value associated to a data item is updated whenever necessary

Global Reporting Format for Runway Surface Conditions

SNOWTAM published Example

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

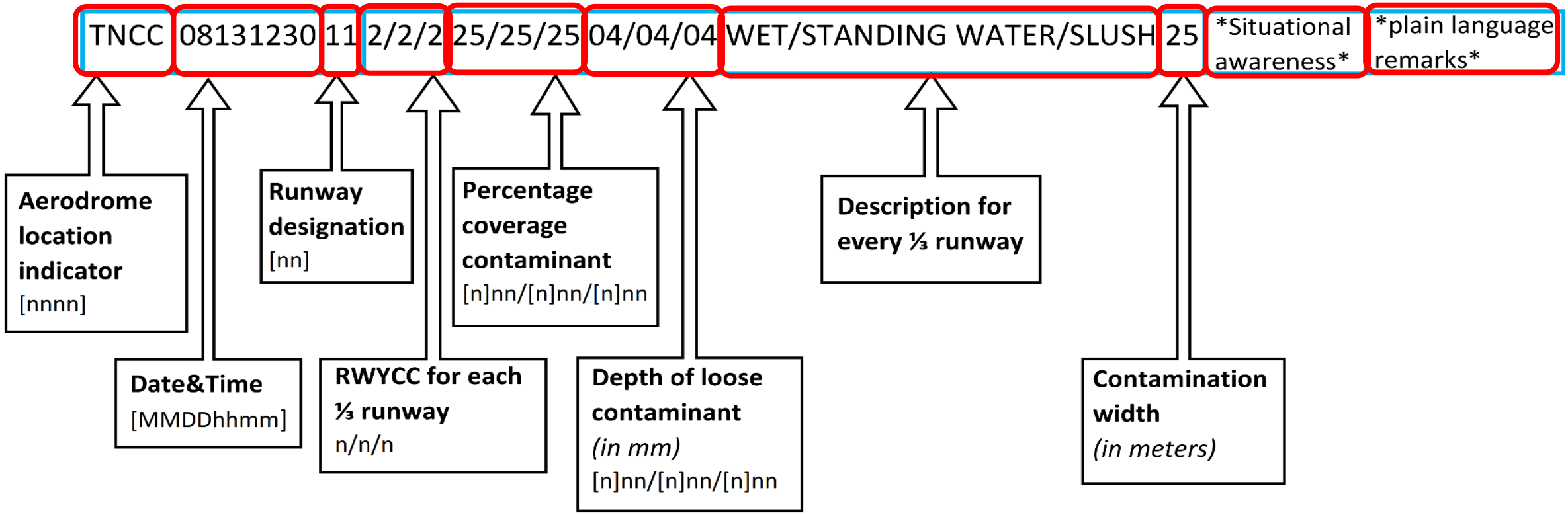
DRIFTING SNOW. RWY 09R CHEMICALLY TREATED. RWY 09C CHEMICALLY TREATED.)

AIS DEPARTMENT – SNOWTAM REQUEST FORM

AIS ONLY					
	COM Heading	Priority Indicator GG	Addresses AFTN		
		DATE and TIME of FILING		DATA ORIGINATOR TNC$	
	Abbreviated Heading	(TN) SERIAL NUMBER	LOCATION INDICATOR	DATE / TIME of ASSESSMENT UTC	
		S W T N	T N C	d d M M Y Y HH Min	
	SNOWTAM	(SERIAL NUMBER)	SNOWTAM PUBLICATION DATE & TIME ddMMMyy – HHmm UTC		

RCR String Description / Decoding

TNCC 09101345 11 6/6/6 NR/NR/NR NR/NR/NR DRY/DRY/DRY



Global Reporting Format for Runway Surface Conditions - ATIS

- ***Example of SNOWTAM in ATIS***

(SNOWTAM 123

TNCC 08131230 11 6/6/6 NR/NR/NR NR/NR/NR DRY/DRY/DRY)

- *RUNWAY 11 CONDITION REPORT AT 1230 UTC*
- *RUNWAY CONDITION CODE 6,6,6*
- *FIRST **PART** DRY*
- *SECOND **PART** DRY*
- *THIRD **PART** DRY*

Global Reporting Format for Runway Surface Conditions - ATIS

Example of SNOWTAM in ATIS

(SNOWTAM 567
TNCC 08131230 11 3/2/2 50/75/75 03/04/05 SLIPPERY WET/STANDING WATER/STANDING WATER 50
RWY 11 REDUCED TO 2897 M. TWY A POOR)

- *RUNWAY 11 CONDITION REPORT AT 1230 UTC*
- *RUNWAY CONDITION CODE 3,2,2*
- *FIRST **PART** 50 PERCENT 3 MILLIMETERS SLIPPERY WET*
- *SECOND **PART** 75 PERCENT 4 MILLIMETERS STANDING WATER*
- *THIRD **PART** 75 PERCENT 5 MILLIMETERS STANDING WATER*
- *RUNWAY WIDTH 50 METERS*
- *RUNWAY 11 REDUCED TO 2897 METERS*
- *TAXIWAY ALPHA POOR*

Global Reporting Format for Runway Surface Conditions - ATCS

Change of runway in use – decoding the RCR backwards

(SNOWTAM 234
TNCC 09191500 11 6/5/3 NR/25/25 NR/03/NR DRY/WET/SLIPPERY WET 25
RWY 11 LOOSE SAND. RWY 11 CHEMICALLY TREATED.)

Runway 11

- *RUNWAY 11 CONDITION REPORT AT 1500 UTC*
- *RUNWAY CONDITION CODE 6,5,3*
- *FIRST PART DRY*
- *SECOND PART 25 PERCENT 3 MILLIMETERS WET*
- *THIRD PART 25 PERCENT SLIPPERY WET*
- *RUNWAY WIDTH 25 METERS*
- *RUNWAY 11 LOOSE SAND*
- *RUNWAY 11 CHEMICALLY TREATED*

Runway 29

- *RUNWAY 29 CONDITION REPORT AT 1500 UTC*
- *RUNWAY CONDITION CODE 3,5,6*
- *FIRST PART 25 PERCENT SLIPPERY WET*
- *SECOND PART 25 PERCENT 3 MILLIMETERS WET*
- *THIRD PART DRY*
- *RUNWAY WIDTH 25 METERS*
- *RUNWAY 29 LOOSE SAND*
- *RUNWAY 29 CHEMICALLY TREATED*

ICAO UNITING AVIATION

Evaluation NACC Region NOV 2021 – NOV 2022

Evaluation NACC Region NOV 2021 – NOV 2022

Since November 4th 2021, the following areas regarding GRF / SNOWTAM publication has been evaluated:

- Timely request of submission?

1. SNOWTAM requests are submitted too late, while the weather has undergone multiple significant changes within the 8hrs of validity;

2. RWY Analyses are carried out too late, which results in a late request

Since November 4th 2021 the following areas regarding GRF / SNOWTAM publication has been evaluated *(Cont.)*:

- Request is submitted via Automated application or manual Form?

1. Most requests with error are submitted via the manual form.

2. Automated system error only occurred (2 out of 115), whereby the error was wrong RwyCC chosen → incorrect analyses.

Since November 4th 2021 the following areas regarding GRF / SNOWTAM publication has been evaluated *(Cont.)*:

- **Confirmation call is received immediately after request submission?**

1. **SNOWTAM requests are submitted but no confirmation call is received at the NOF → Signed SLA is not followed accordingly;**

2. **DO's not aware of procedure stated in SLA → unfamiliar responses**

Since November 4th 2021 the following areas regarding GRF / SNOWTAM publication has been evaluated *(Cont.)*:

- **Significant changes are submitted immediately?**

1. **DO's are not assessing the runway condition as required by ICAO standards;**
2. **TWR also to coordinate with DO, if necessary, in case there is significant change and/or request new assessment to be done by DO;**
3. **Pilots can always confirm the runway condition and feedback to TWR.**

Since November 4th 2021 the following areas regarding GRF / SNOWTAM publication has been evaluated *(Cont.)*:

✈ Availability of DO / TWR:

1. DO/TWR not reachable or contact info incorrect;

2. TWR not aware of SNOWTAM procedure.

Since November 4th 2021 the following areas regarding GRF / SNOWTAM publication has been evaluated *(Cont.)*:

- **Up-to-date knowledge of the requestor:**

  Lack of sufficient knowledge regarding runway condition.

ICAO UNITING AVIATION

GRF Lessons Learned

Miracle on the St. Johns

Accident Base Information:

- May 3rd, 2019
- Miami Air Boeing 737
- Flight: Guantanamo Bay to Jacksonville with 143 persons on board
- Bad weather conditions
- 21 people were injured.

A runway excursion is a runway safety incident where an aircraft makes an inappropriate exit from the runway.

VIDEO

Point of Views and facts:

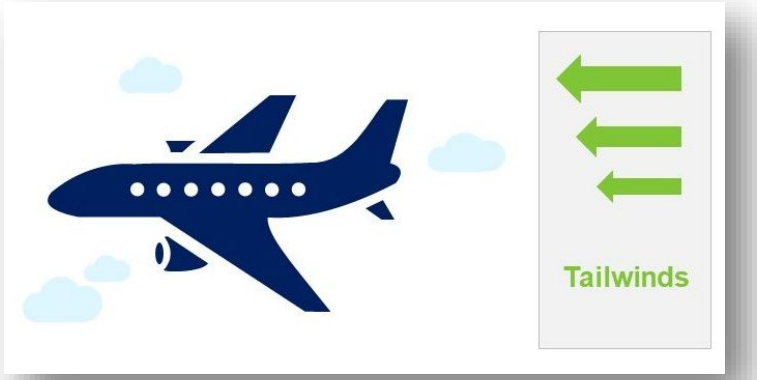
- Passengers explained the feeling of the plane never slowing down upon landing
- Heavy rain fall and Runway contaminated by lots of water
- No updated runway condition information in place to flight crew

Point of Views and facts (cont.):

- Flight Crew had extreme loss of braking friction

- Flight crew not aware of rain condition landing guidance on wet runway

Point of Views and facts (cont.):



- Landed fast with tailwind;
- Landed in a heavy rain showers ;
- Slid into shallow water of the runway's end.

GRF Lessons Learned

Results:

- Loss of braking friction on rain-soaked runway deemed primary cause of the crash;
- Aircrafts skids off the runway into the St. Johns River;
- No SNOWTAM /RCR information was known;
- The airplane would still not have stopped on the un-grooved runway because the rainfall rate and runway contamination contributed to water depths that caused the accident.

PREVENTIVE MEASURES

Preventive measures

- The use of an Automated Application has shown to produce less errors by the DO, regarding the RCR data;
- Manual SNOWTAM Form, is advised to be used as an redundancy and should be filled out by trained personnel;
- Confirmation calls to the NOF are highly recommended in order to have requests processed immediately … Safety is our priority;

Preventive measures

- DOs must remain vigilant on significant weather changes and maintain RWY Condition information up-to-date;

- 8hrs validity must be taken into account!

Preventive measures

So……Why is it important to implement?

1	To **standardize** the reporting of RWY surface conditions.
2	To **establish** a common language between all related parties with 1 systematic.
3	It allows pilots to **accurately** determine aircraft take-off and landing performance.
4	It improves Aerodrome **safety**, by better understanding if RWY conditions which helps with lesser excursions
5	It **improves** Airport Operations efficiency in better decision making.
6	Reduces **environment impact** by improvement in Air Traffic Management.

GRF IMPLEMENTATION STATUSES

GRF Implementation Statuses

Up to NOV 24th 2022:

- A Total of 21 States registered to the AIM TF on GRF implementation

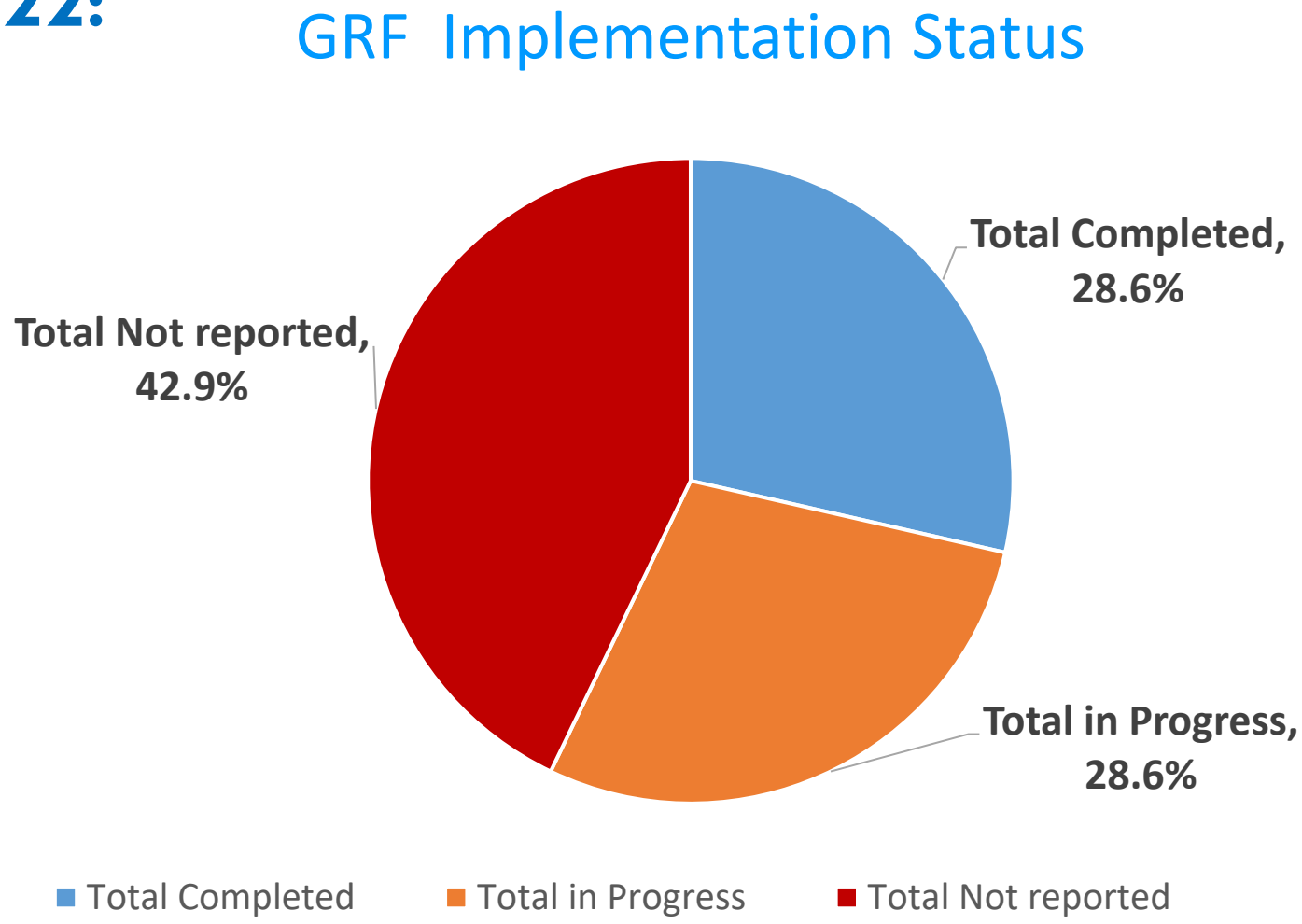
GRF Implementation Statuses

Up to NOV 24th 2022:

- 6 Stated Completed GRF Implementation
- 6 Stated has Not Completed the GRF Implementation
- 9 States have not provided GRF Implementation Status

GRF Implementation Statuses

Up to NOV 24th 2022:




Q
A


Any
questions

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THANK YOU