1. PURPOSE

This advisory circular (AC) provides guidance to assist aerodrome operators in assessing and reporting runway surface conditions through the utilization of the Runway Condition Assessment Matrix (RCAM) and report through a Runway condition code (RWYCC).

2. REFERENCES

2.1. The Civil Aviation (Aerodrome Design and Operations) Regulations 2024
2.2. ICAO ANNEX 14 – Volume I, 9th Edition, July 2022
2.3. ICAO Doc 9137 – Part 2 (Pavement Surface Conditions)
2.4. ICAO Doc 9157 – Part 3 (Aerodrome Design Manual - Pavements)
2.5. ICAO Circular 355 - Assessment, Measurement and Reporting of Runway Surface Conditions
2.6. Annex 3 - Meteorological Service for International Air Navigation
2.7. Annex 6 - Operation of Aircraft, Part I — International Commercial Air Transport - Aeroplanes and Part II — International General Aviation — Aeroplanes;
2.8. Annex 8 - Airworthiness of Aircraft;
2.9. Annex 15 - Aeronautical Information Services
2.10. Procedures for Air Navigation Services (PANS) - Aerodromes (PANS-Aerodromes, Doc 9981);
2.11. Procedures for Air Navigation Services (PANS) - Air Traffic Management (PANS-ATM, Doc 4444);
2.12. Procedures for Air Navigation Services (PANS) - Aeronautical Information Management (PANS-AIM- Doc 10066)

3. APPLICABILITY

Aerodromes and ANSP that will be required to Implement GRF

All paved aerodromes with access to control towers.

4. INTRODUCTION

4.1. Definitions of Terms

Automatic terminal information service (ATIS). The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof.

Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link.

Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continuous and repetitive voice broadcasts.

Braking action. A term used by pilots to characterize the deceleration associated with the wheel braking effort and directional controllability of the aircraft.

Contaminant. A deposit (such as snow, slush, ice, standing water, mud, dust, sand, oil and rubber) on an aerodrome pavement, the effect of which is detrimental to the friction characteristics of the pavement surface.

Critical tire-to-ground contact area. An area (approximately 4 square metres for the largest aircraft currently in service) which is subject to forces that drive the rolling and braking characteristics of the aircraft, as well as directional control.

Friction characteristics. The physical, functional and operational features or attributes of friction arising from a dynamic system.

NOTAM. A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Runway condition assessment matrix (RCAM). A matrix allowing the assessment of the runway condition code, using associated procedures, from a set of observed runway surface condition(s) and pilot report of braking action.

Runway condition code (RWYCC). A number describing the runway surface condition to be used in the runway condition report.

Runway condition report (RCR). A comprehensive standardized report relating to runway surface conditions and its effect on the aeroplane landing and take-off performance.

Runway surface condition(s). A description of the condition(s) of the runway surface used in the runway condition report which establishes the basis for the determination of the runway condition code for aeroplane performance purposes.

Dry runway. A runway is considered dry if its surface is free of visible moisture and not contaminated within the area intended to be used.

Wet runway. The runway surface is covered by any visible dampness or water up to and including 3 mm deep within the intended area of use.

Slippery wet runway. A wet runway where the surface friction characteristics of a significant portion of the runway have been determined to be degraded.

Contaminated runway. A runway is contaminated when a significant portion of the runway surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed in the runway surface condition descriptors.

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.

4.2. Background information and conceptual understanding for implementation

Assessing and reporting the surface condition of a runway poses a particular challenge for an airport operator and is of the utmost importance to airport users. Pilot braking action reports are the source of braking action information most accepted by pilots.
The new ICAO methodology for assessing and reporting runway surface conditions, commonly known as the Global Reporting Format (GRF), enables the harmonized assessment and reporting of runway surface conditions and correspondingly improved flight crew assessment of take-off and landing performance. The report is made to the template and content of NOTAM regarding runway condition (SNOWTAM), named Global Reporting Format (GRF).

Aeroplane performance can be considered to be impacted whenever the coverage of any water-based contaminant on any runway third exceeds 25 per cent. The intent of the assessment and reporting procedures is to communicate the runway surface conditions impacted by any remaining contamination to the aeroplane operators in a way consistent with the effect on aeroplane performance.

The intent of the RCR is to put into place a common language between all system actors that is based on the impact of runway surface conditions on aeroplane performance. It is therefore necessary that all members of the information chain, from data origin to end users, have been given proper training. An outline of the necessary training for aerodrome personnel can be found in **Section 8** of this document.

It is important for aerodrome personnel to make the best attempt to accurately report runway surface conditions, rather than seek a systematically conservative assessment. Conservatism is recommended in the judgement of observations versus criteria such as 3mm depth or 25 per cent coverage, but not for the RWYCC. “Conservatism” is different from “downgrade” motivated by other observations or local knowledge. Flight crews are

asked to evaluate the worst runway surface conditions that are acceptable for the intended operation. This is an additional safeguard against lack of conservatism.

Aircraft manufacturers have determined that variances in contaminant type, depth and air temperature cause specific changes in aircraft braking performance. As a result, it has been possible to take the aircraft manufacturers' data for specific contaminants and produce the RCAM for use by aerodrome operators.

5. ASSESSMENT AND REPORTING OF RUNWAY SURFACE CONDITIONS

5.1. Operational need for reporting

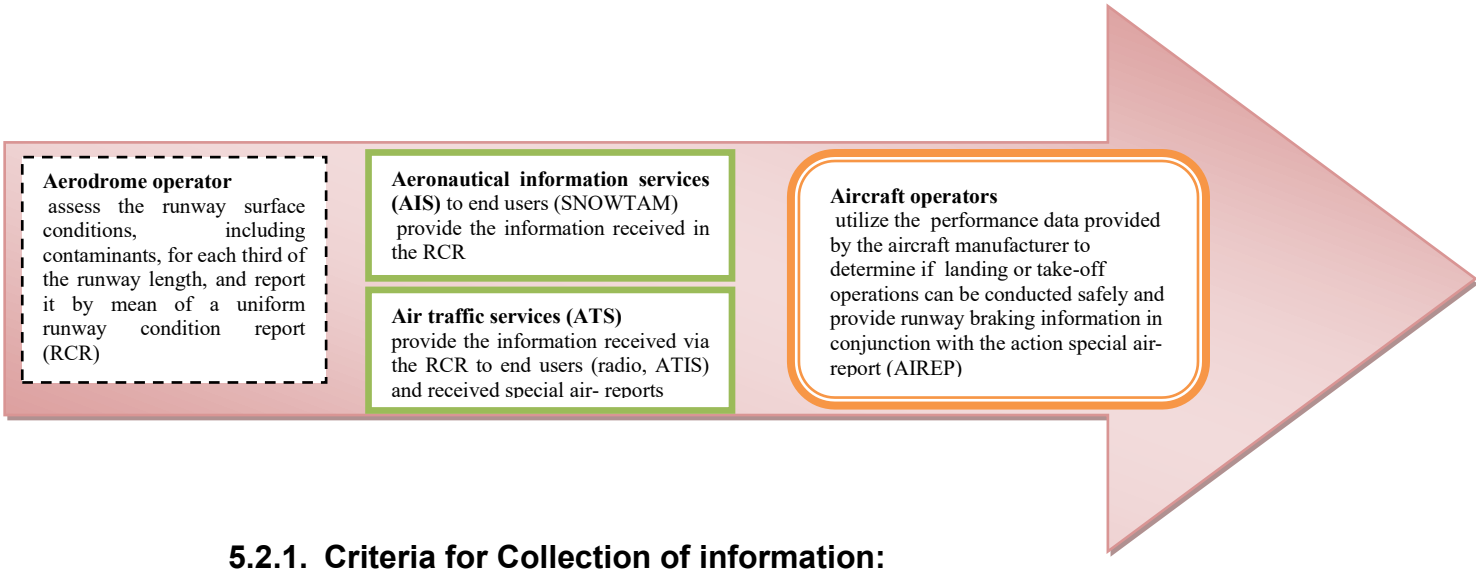
The flight crew needs information relevant for the safe operation of the aircraft, as far as it is relevant to the conditions of the runway surface, obtained through the use of NOTAMs (slippery wet runway) and the RCR. The introduction of the RCR based on the RCAM and RWYCC, in conjunction with new or existing performance data, establishes a clear link between the observation, reporting and accounting of runway surface conditions in performance. It also creates new paths to errors, of which it is important to be aware. Training content may be based on information in this circular, among other sources.

It is the task of the aerodrome personnel assessing and reporting runway surface conditions to determine the RWYCCs that appropriately reflect the conditions on the runway and that are to be used for the performance check at the time of arrival. It is important that the aerodrome personnel understand the operational use of the RWYCC by the flight crew in order to assess and report it properly.

The outcome of the assessment from aerodrome operators by using a Runway Condition Assessment Matrix (RCAM) and the consequent assignment of a runway condition code (RWYCC) are transmitted using a Runway Condition Report (RCR) forwarded to air traffic services and the aeronautical information services for dissemination to pilots. The pilots will use the RWYCC to determine their aircraft's performance by correlating the code with performance data provided by their aircraft's manufacturer. This will help pilots to correctly carry out their landing and take-off performance calculations for wet or contaminated runways.

Pilots are encouraged to make special air reports (AIREPs) whenever conditions they observe or experience in terms of braking capability and/or lateral control during landing that may trigger a new assessment or be directly taken into account in the downgrade process to the previously reported RWYCC.

5.2. Flow of information



5.2.1. Criteria for Collection of information:

The aerodrome operator is responsible to assess the condition of the runway for each third of the runway and issue a Runway Condition Report (RCR). This report contains the Runway Condition Code (RWYCC) 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).

Visually inspecting the movement area to assess the surface condition is the core method for determining an RWYCC. An overall assessment, however, implies more than that.

Continuously monitoring the development of the situation and prevailing weather condition is essential to ensuring safe flight operations. Other information that might influence the assessment result includes the outside air temperature (OAT), surface temperature, dew point, wind speed and direction, control and deceleration of the inspection vehicle, pilot reports of runway braking action, friction readings (continuous friction measuring device or decelerometer), weather forecast, etc. Due to the interaction between such factors, it is not possible to define a precise deterministic method for determining how they affect the RWYCC to be reported.

Aerodrome personnel use their best judgement and experience to determine an RWYCC that best reflects the prevailing situation.

The RCAM supports the classification of runway surface conditions according to their effect on aeroplane braking performance using a set of criteria identified and quantified based on the best industry knowledge, built on dedicated flight testing and in-service experience. The agreed thresholds at which a criterion changes the classification of a surface condition are intended to be reasonably conservative, without being excessively pessimistic.

As suggested in the forthcoming paragraphs, it is important for aerodrome personnel to monitor and accurately report conditions when operating close to the thresholds considering the following:

(i) **Percentage of coverage of contamination in each runway third**. A runway is considered to be contaminated when the extent of the coverage is more than a quarter of the surface of at least one third of the runway. It is important to note that, whenever coverage is assessed to be below the 25 per cent threshold in each third, the calculation assumption made by flight crew will be a dry runway (uniformly bare of moisture, water and contamination). It has been demonstrated that in conditions of contamination just below the reporting threshold but concentrated in the most unfavourable location, this assumption of dry runway still provides positive stop margins.

(ii) **Type of contaminant.** Different contaminants affect the contact area between the tire and runway surface, where the stopping force is generated, in different ways. A

water film of any depth leads to the partial separation (viscous aquaplaning) or total separation (dynamic aquaplaning) of the tire from the surface. The smaller the surface, the smaller the force of adhesion, and the less braking is available. This is why the maximum braking force decreases at higher speed and depends on contaminant depth. Other fluid contaminants have a similar effect. Hard contaminants such as ice or compacted snow prevent contact between the tire and runway surface completely and at any speed, effectively providing a new surface that the tire rolls on. A deterministic classification of the stopping performance can be made only for the contaminants listed in the RCAM. For other reportable contaminants (oil, mud, ash, etc.), there is a large variance in the aeroplane performance effect, or insufficient data are available to permit a deterministic classification. An exception is rubber contamination, for which in-service data indicate that an assumption of RWYCC 3 restores usual performance margins. Runway surface treatments with sand, grit or chemicals may be very effective or detrimental depending on the conditions of the application, and no credit can be attributed to such treatment without verification and validation.

(iii) **Depth of the contamination.** The industry accepts that the threshold for the effect of depth of fluid contaminants on aeroplane performance is 3 mm. Below this threshold, any type of fluid contaminant can be removed from the tire/runway contact zone either by forced drainage or by compressing the contaminant into the macrotexture of the surface, thus allowing adhesion between tire and surface, albeit on less than the full footprint surface area. This is why contamination depths of up to 3 mm are expected to provide similar stopping performance as a wet runway. The physical effects causing reduced friction forces begin to take effect from very small film thickness, which is why damp conditions are considered to provide no better braking action than a wet runway. It is important for aerodrome personnel to be aware of the fact that the capability to generate friction in wet conditions (or with thin layers of fluid contaminants) highly depends on the inherent qualities of the runway surface (friction characteristics) and may be less than normally expected on poorly drained, polished or rubber-contaminated surfaces. Above the 3 mm threshold, the impact on friction forces is more significant, leading to classification in lower RWYCCs. Above this depth, and depending on the density of the fluid, additional drag effects start to apply due to displacement or compression of the fluid and impingement on the airframe of the aeroplane. These

latter effects depend on the depth of the fluid and affect the aeroplane's ability to accelerate for take-off. It is thus important to report depths with the precision required.

5.3. Runway Condition Assessment Matrix (RCAM)

The revised scale GOOD, GOOD TO MEDIUM, MEDIUM, MEDIUM TO POOR, POOR and LESS THAN POOR is used by the flight crew to characterize perceived braking action and lateral control of the aeroplane during landing roll. RWYCCs 0 through 5 are mapped to this terminology in the runway condition assessment matrix (RCAM) and describe a consistent runway surface condition in relation to its effect on aircraft braking performance and lateral control.

Runway condition assessment matrix (RCAM)			
Assessment		**Downgrade assessment criteria**	
Runway condition code (RWYCC)	Runway surface description	Aeroplane deceleration or directional control observation	Pilot report of runway braking action
6	• DRY	---	---
5	• WET (The runway surface is covered by any visible dampness or water up to and including 3 mm depth)	Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	GOOD
4		Braking deceleration OR directional control is between Good and Medium.	GOOD TO MEDIUM
3	• WET ("slippery wet" runway)	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		Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	POOR
0		Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	LESS THAN POOR

Note.— Detailed Guidance on methods of assessing runway surface condition is given in Chapter 2 – Procedures for Air Navigation Services - Aerodromes (PANS-Aerodromes, Doc 9981);

Assigning a runway condition code (RWYCC)

Runway condition description	*Runway condition code (RWYCC)*
DRY	**6**
FROST **WET** (the runway surface is covered by any visible dampness or water up to and including 3 mm deep) **SLUSH** (up to and including 3 mm depth) **DRY SNOW** (up to and including 3 mm depth) **WET SNOW** (up to and including 3 mm depth)	**5**
COMPACTED SNOW (Outside air temperature minus 15 degrees Celsius and below)	**4**
WET ("Slippery wet" runway) **DRY SNOW** (more than 3 mm depth) **WET SNOW** (more than 3 mm depth) **DRY SNOW ON TOP OF COMPACTED SNOW** (any depth) **WET SNOW ON TOP OF COMPACTED SNOW** (any depth) **COMPACTED SNOW** (outside air temperature above minus 15 degrees Celsius)	**3**
STANDING WATER (more than 3 mm depth) **SLUSH** (more than 3 mm depth)	**2**
ICE	**1**
WET ICE **WATER ON TOP OF COMPACTED SNOW** **DRY SNOW OR WET SNOW ON TOP OF ICE**	**0**

5.3.1. Dissemination of information:

Aeronautical information services (AIS) provide the information received in the RCR to end users through SNOWTAM in the new format. When the runway is wholly or partly contaminated by standing water, snow, slush, ice or frost, or is wet associated with the clearing or treatment of snow, slush, ice or frost, the runway condition report should be disseminated through the AIS and ATS services. When the runway is wet, not associated with the presence of standing water, snow, slush, ice or frost, the assessed information should be disseminated using the runway condition report through the ATS only.

Air traffic services (ATS) provide the information received via the RCR to end users through radio, ATIS, etc., and received special air reports shall be reported back to the Aerodrome operator for necessary action.

5.3.2. Using the information:

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).

5.3.3. Coordination between aerodromes, AIS (NOF), and ATS units

Aerodrome Operators, AIS, and ATS will closely cooperate to ensure the flow of information will reach the end users.

5.4. Downgrading and upgrading the RWYCC

The RCAM enables aerodrome personnel to make an initial assessment based on visual observation of contaminants on the runway surface, specifically the contaminant type, depth and coverage, as well as the OAT. Downgrading and upgrading are an integral part of the assessment process and is essential to making relevant reports of the prevailing runway surface conditions. When all other observations, experience and local knowledge

indicate to trained aerodrome personnel that the primary assignment of the RWYCC does not accurately reflect the prevailing conditions, a downgrade or upgrade can be made.

If the contaminants cannot be completely removed and the initially assigned RWYCC does not reflect the real runway surface conditions the aerodrome personnel may apply upgrade procedures. Upgrading is applicable only when the initial RWYCC is 0 or 1 and is not permitted to go beyond RWYCC 3. Upgrading is conditioned on meeting the standard set or agreed by the State and is supported by all other aspects, as described in 4.35.

6. SNOWTAM FORMAT

The information shall be included in an information string in the following order using only AIS compatible characters:

a) **aeroplane performance calculation section:**

i) aerodrome location indicator;
ii) date and time of assessment;
iii) lower runway designation number;
iv) RWYCC for each runway third;
v) per cent coverage contaminant for each runway third;
vi) depth of loose contaminant for each runway third;
vii) condition description for each runway third; and
viii) width of runway to which the RWYCCs apply if less than published width

b) situational awareness section:

i) reduced runway length;
ii) drifting snow on the runway;
iii) loose sand on the runway;
iv) chemical treatment on the runway;
v) snowbanks on the runway;
vi) snowbanks on the taxiway;
vii) snowbanks adjacent to the runway;
viii) taxiway conditions;
ix) apron conditions;
x) State-approved, and published use of, measured friction coefficient; and
xi) plain language remarks.

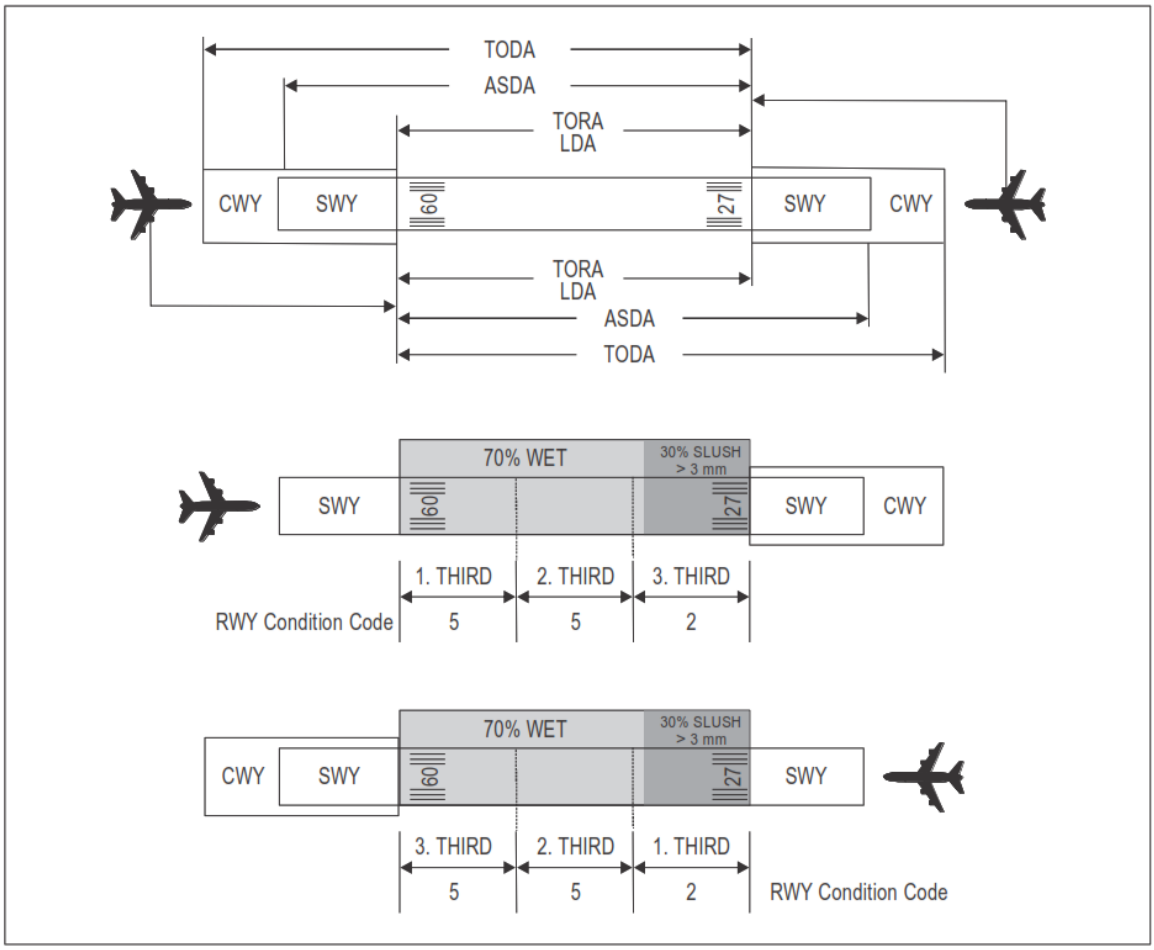


Figure II-2-1. Reporting of runway condition code from ATS to flight crew for runway thirds

Note.— Detailed Guidance on meaning and examples of information contained in the below SNOWTAM are given in Chapter 2, Sections 2.1.3 and 2.2 – Procedures for Air Navigation Services - Aerodromes (PANS-Aerodromes, Doc 9981);

SNOWTAM FORMAT

(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 ASSESSMENT	(OPTIONAL GROUP)	<≡ (

SNOWTAM ⟶	(Serial number) <≡		
Aeroplane performance calculation section			
(AERODROME LOCATION INDICATOR)	M	A)	<≡
(DATE/TIME OF ASSESSMENT *(Time of completion of assessment in UTC)*)	M	B)	⟶
(LOWER RUNWAY DESIGNATION NUMBER)	M	C)	⟶
(RUNWAY CONDITION CODE (RWYCC) ON EACH RUNWAY THIRD) *(From Runway Condition Assessment Matrix (RCAM) 0, 1, 2, 3, 4, 5 or 6)*	M	D)	/ / ⟶
(PER CENT COVERAGE CONTAMINANT FOR EACH RUNWAY THIRD)	C	E)	/ / ⟶
(DEPTH *(mm)* OF LOOSE CONTAMINANT FOR EACH RUNWAY THIRD)	C	F)	/ / ⟶
(CONDITION DESCRIPTION OVER TOTAL RUNWAY LENGTH *(Observed on each runway third, starting from threshold having the lower runway designation number)* COMPACTED SNOW DRY DRY SNOW DRY SNOW ON TOP OF COMPACTED SNOW DRY SNOW ON TOP OF ICE FROST ICE SLUSH	M	G)	/ /

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			→
(WIDTH OF RUNWAY TO WHICH THE RUNWAY CONDITION CODES APPLY, IF LESS THAN PUBLISHED WIDTH)	O	H)	<≡≡
Situational awareness section			
(REDUCED RUNWAY LENGTH, IF LESS THAN PUBLISHED LENGTH *(m)*)	O	I)	→
(DRIFTING SNOW ON THE RUNWAY)	O	J)	→
(LOOSE SAND ON THE RUNWAY)	O	K)	→
(CHEMICAL TREATMENT ON THE RUNWAY)	O	L)	→
(SNOWBANKS ON THE RUNWAY) *(If present, distance from runway centreline (m) followed by "L", "R" or "LR" as applicable)*	O	M)	→
(SNOWBANKS ON A TAXIWAY)	O	N)	→
(SNOWBANKS ADJACENT TO THE RUNWAY)	O	O)	→
(TAXIWAY CONDITIONS)	O	P)	→
(APRON CONDITIONS)	O	R)	→
(MEASURED FRICTION COEFFICIENT)	O	S)	
(PLAIN-LANGUAGE REMARKS)	O	T)	)

NOTES:

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), in Appendix 4 of PANS-AIM (Doc 10066).

SIGNATURE OF ORIGINATOR *(not for transmission)*

7. METHODS OF ASSESSING RUNWAY SURFACE CONDITION

		ANNEX 14, Volume I, 9th Edition, July 2022	*REMARK*		
DESIGN AND CONSTRUCTION	Slope	3.1.13 Longitudinal slopes 3.1.19 Transverse slopes			
	Texture	3.1.26 **Recommendation.—**The average surface texture depth of a new surface should be not less than 1.0 mm.			
	Minimum friction level set by the State	3.1.23 A paved runway shall be so constructed or resurfaced as to provide surface friction characteristics at or above the minimum friction level set by the State.	The State set criteria for surface friction characteristics and output from State set or agreed assessment methods form the reference from which trend monitoring are performed and evaluated.		
	Polishing	3.1.23 A paved runway shall be so constructed or resurfaced as to provide surface friction characteristics at or above the minimum friction level set by the State.	Polished Stone Value. (PSV-value) is a measure of skidding resistance on a small sample of stone surface, having being subjected to a standard period of polishing.		
			Rubber build-up	*Geometry change*	*Polishing*
ASSESSMENT METHODS FOR MONITORING TREND OF CHANGE TO SURFACE FRICTION CHARACTERISTICS	Visual − macrotexture	Visual assessment will only give a very crude assessment of the macrotexture. Extensive rubber build-up can be identified.	X		
	Visual − microtexture	Visual assessment will give a very crude assessment of the microtexture and to what degree the microtexture has been filled and covered by rubber.	X		
	Visual – runway geometry (ponding)	Visual assessment during a rain storm and subsequent drying process of the runway will reveal how the runway drains and if there have been any changes to runway geometry causing ponding. Depth of any pond can be measured by a ruler or any other appropriate depth measurement method/tool.		X	
	By touch − macrotexture	Assessment by touch can differentiate between degree of loss of texture but not quantifying it.	X		
	By touch − microtexture	Assessment by touch can identify if microtexture has been filled in/covered by rubber build-up.	X		
	Grease smear method (MTD)	Measure a volume – Mean Texture Depth (MTD) primarily by using the grease smear method, is the measurement method used for research purposes related to aeroplane performance.	X		
	Sand (glass) patch method (MTD)	Measure a volume – Mean Texture Depth (MTD). The sand (glass) patch method is not identical to the grease smear method. There is at present no internationally accepted relationship between the two methods.	X		
	Laser – stationary (MPD)	Measure a profile – Mean Profile Depth (MPD). There is no established relationship between MTD and MPD. The	X		
	Laser – moving (MPD)				

			Rubber build-up	*Geometry change*	*Polishing*
		relationship must be established for the laser devices used and the preferred volumetric measurement method used.			
	Friction measurement – controlled applied water depth	A friction measurement is a system output which includes all the surface friction characteristics and characteristics of the measuring device itself. All other variables than those related to the surface friction characteristics must be controlled in order to relate the measured values to the surface friction characteristics. The system output is a dimensionless number which is related to the surface friction characteristics and as such is also a measure of macrotexture. (The system generated number needs to be paired with other information (assessment methods) to identify which surface friction characteristics significantly influence the system output.) It is recognized that there is currently no consensus within the aviation industry on how to control the uncertainty related to repeatability, reproducibility and time stability. It is paramount to keep this uncertainty as low as possible, consequently ICAO has tightened the Standards associated with use of friction measurement devices, including training of personnel who operate the friction measuring devices.	X		X
	Friction measurement – natural wet conditions	Friction measurements performed under natural wet conditions during a rain storm might reveal if portions of a runway are susceptible to ponding and/or to fall below State set criteria.	X	X	X
	Modelling of water flow and prediction of water dept	Emerging technologies based on the use of a model of the runway surface describing its geometrical surface (mapped) and paired with sensor information of water depth allow real-time information and thus a complete runway surface monitoring, and anticipation of water depths.		X	

8. TRAINING AND AWARENESS

The table below provides an example of a syllabus for training aerodrome operator personnel who assess and report runway surface condition. The syllabus provides guidance on the training that will be required for the successful roll-out of the global reporting format. For exhaustive training, further topics and requirements with regard to training in GRF are contained in other references as outlined under section 2 above which altogether provide a sufficiently trained personnel member

on Global Reporting Format for Runway Surface Condition Assessment and Reporting. The examples are provided to support PANS-Aerodromes (Doc 9981), Part II, Chapter 1.

As a minimum training contents requirement, a person assigned a task of assessing and reporting runway surface condition shall be trained on the following topics:

(i) Background to the ICAO Global Reporting Format (GRF)
(ii) Runway Condition Assessment Matrix (RCAM)
(iii) Conducting a Runway Condition Assessment
(iv) Adjusted Runway Condition Codes
(v) Issuing a Runway Condition Report (RCR)
(vi) Promulgation of Information (SNOWTAM, ATIS)
(vii) Case studies and group exercises
(viii) Knowledge Assessment

Tanzania Civil Aviation Authority