Global Reporting Format
AIS Aspects (SNOWTAM)

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ICAO EUR GRF Implementation Workshop
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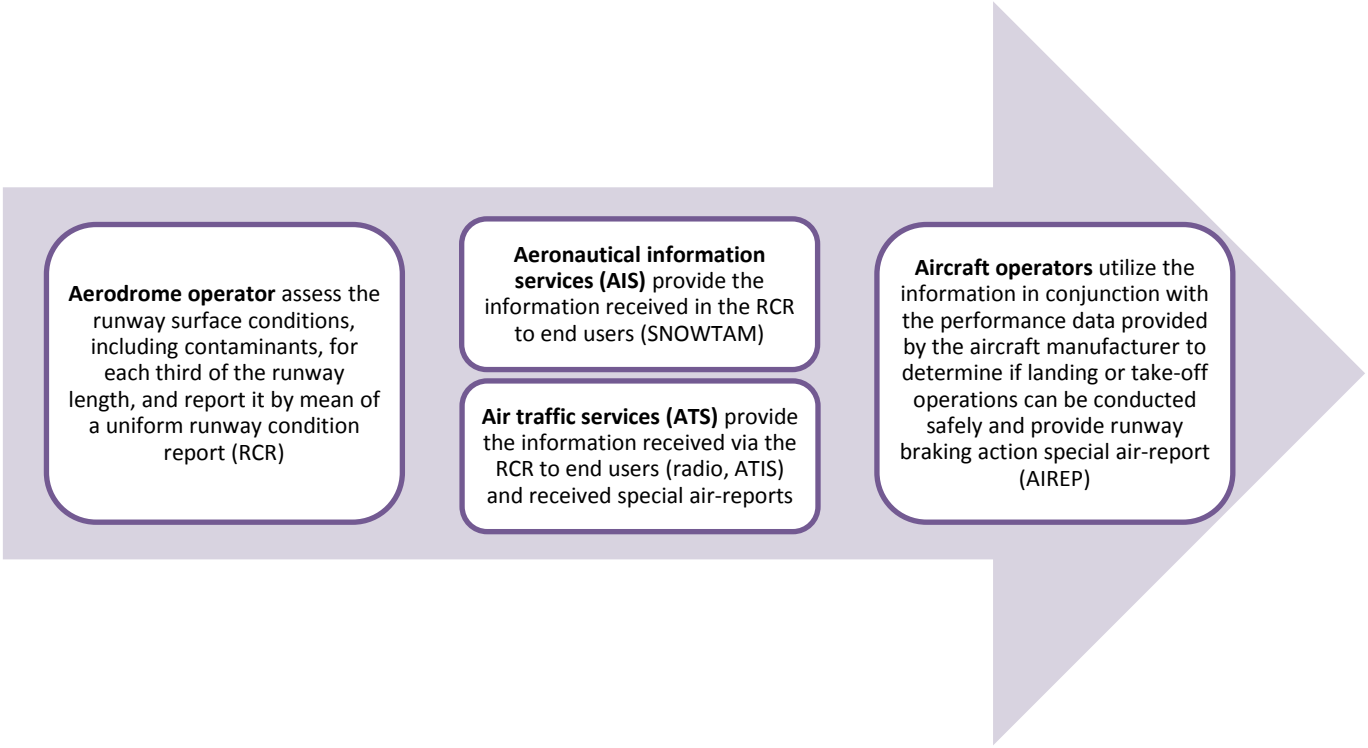
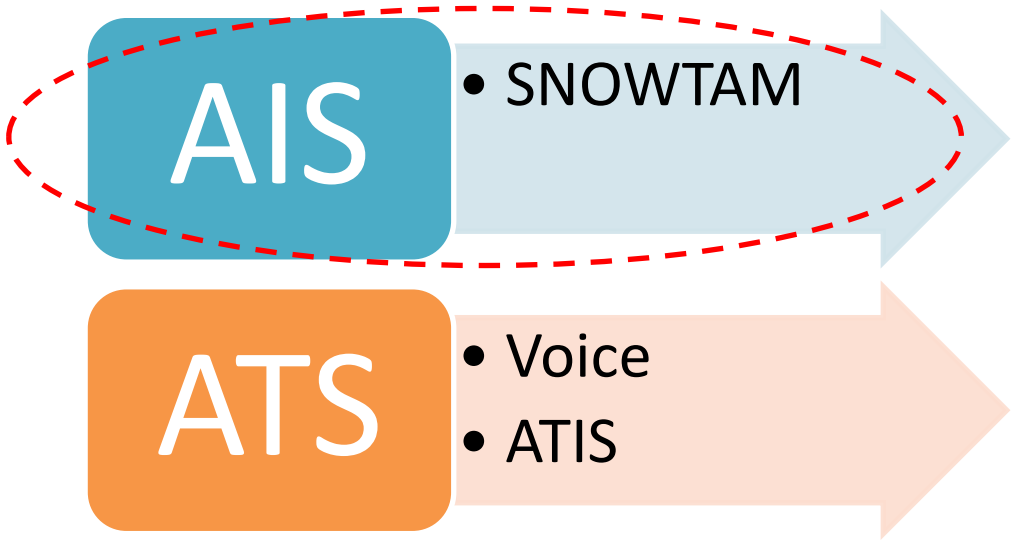
What is GRF?

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



Dissemination of information

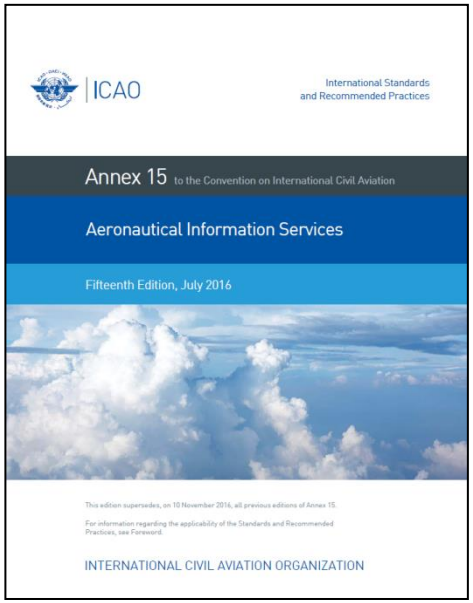
- **Through the AIS and ATS services:** when the runway is wholly or partly contaminated by standing water, snow, slush, ice or frost, or is wet associated with the clearing or treatment of snow, slush, ice or frost.
- **Through the ATS only:** when the runway is wet, not associated with the presence of standing water, snow, slush, ice or frost.



Amendment 39B to Annex 15

Amendment 39B arises from:

- 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***.



Amendment	*Source(s)*	*Subject*	*Adopted/Approved Effective Applicable*
39-B	Friction Task Force of the Aerodrome Design and Operations Panel (ADOP)	Amendment concerning the use of a global reporting format for assessing and reporting runway surface conditions	22 February 2016 11 July 2016 5 November 2020

Major changes of amendment 39B

- SNOWTAM Definition
- SNOWTAM Provisions
- SNOWTAM Format (reporting format for assessing and reporting runway surface conditions has changed)

SNOWTAM Provisions moved to PANS AIM

- After amendment 40 to Annex 15 and with the introduction of the new PANS AIM (DOC 10066), the provisions related to SNOWTAM were moved to PANS AIM.

Changes in SNOWTAM Definition

- ***SNOWTAM***. A special series NOTAM given in a standard format providing a surface condition report notifying the presence or ~~removal~~ cessation of hazardous conditions due to snow, ice, slush, frost, ~~or~~ standing water or water associated with snow, slush ~~and~~, ice, or frost on the movement area~~, by means of a specific format~~.

Major Changes in SNOWTAM Provisions

SNOWTAM Provisions (PANS AIM)

- "Assessment" instead of "Observation"
- The letters used to indicate items in SNOWTAM (A, B, C, …) are only used for reference purpose and should not be included in the messages.
- The maximum validity of SNOWTAM is 8 hours (not 24 hours).
- A SNOWTAM cancels the previous SNOWTAM
- New SNOWTAM shall be issued whenever a new Runway Condition Report (RCR) is received.
- Mandatory information in RCR / SNOWTAM:
  - i) AERODROME LOCATION INDICATOR
  - ii) DATE AND TIME OF ASSESSMENT
  - iii) LOWER RUNWAY DESIGNATOR NUMBER
  - iv) RUNWAY CONDITION CODE FOR EACH RUNWAY THIRD
  - v) CONDITION DESCRIPTION FOR EACH RUNWAY THIRD (when runway condition code is reported 1- 5)

Notes (from PANS Aerodrome)

- *RCR shall be initiated when a significant change in runway surface condition occurs due to water, snow, slush, ice or frost. Reporting of the runway surface condition should continue to reflect significant changes until the runway is no longer contaminated.*
- *A change in the runway surface condition used in the runway condition report is considered significant whenever there is:*
  - *a) any change in the RWYCC;*
  - *b) any change in contaminant type;*
  - *c) any change in reportable contaminant coverage according to Table II-1-1;*
  - *d) any change in contaminant depth according to Table II-1-2; and*
  - *e) any other information, for example a pilot report of runway braking action, which according to assessment techniques used, are known to be significant.*

New SNOWTAM Format

- The new SNOWTAM has 2 sections
- The new SNOWTAM is conform to the Runway Condition Report (RCR) in content and format

1: Aeroplane performance Section

Item A - Aerodrome location indicator
Item B - Date and time of assessment
Item C - Lower runway designator number
Item D - Runway condition code (each runway third)
Item E - Per cent coverage (each runway third)
Item F - Depth of loose contaminant (each runway third)
Item G - Condition description for each third
Item H - Width of RWY to which the RWYCCs apply

2: Situational Awareness Section

Item I - Reduced runway length
Item J - Drifting snow on the runway
Item K - Loose sand on the runway
Item L - Chemical treatment on RWY
Item M - Snow banks on the runway
Item N - Snow banks on the taxiway
Item O - Snow banks adjacent to the runway
Item P - Taxiway conditions
Item R - Apron conditions
Item S - Measured friction coefficient
Item T - Plain language remarks


(COM heading)
(PRIORITY INDICATOR)
(ADDRESSES)
<≡
(DATE AND TIME OF FILING)
(ORIGINATOR'S INDICATOR)
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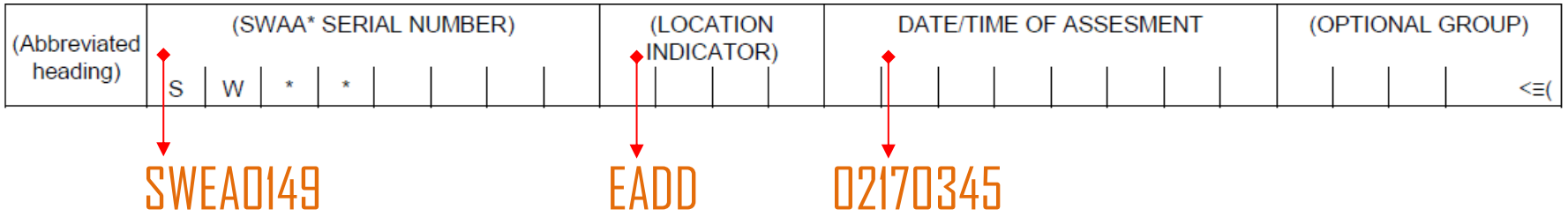
GG
170350
EADBZQZX EADNZQZX EADSZQZX
EADDYNYX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(SWAA* SERIAL NUMBER)
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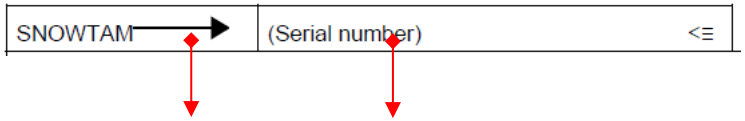
SNOWTAM
(Serial number)
<≡
SNOWTAM 0149

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 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 CODES APPLY, IF LESS THAN PUBLISHED WIDTH)	O	H)	<≡≡

EADD 02170345 09C 3/2/1 75/100/100

06/12/12 SLUSH/SNOW/SNOW 35

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 centre line (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)	)

Example:

DRIFTING SNOW. RWY 09 LOOSE SAND. RWY 09 CHEMICALLY TREATED. RWY 09 SNOWBANK R20 FM CL. TWY A SNOWBANK. RWY 06R ADJACENT SNOWBANKS. TWY B POOR. APRON NORTH POOR.)

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).

NEW

GG EADBZQZX EADNZQZX EADSZQZX
170350 EADDYNYX

SWEA0149 EADD 02170345

(SNOWTAM 0149

EADD 02170345 09L 5/5/5 100/100/100 NR/NR/NR
WET/WET/WET

EADD 02170134 09R 5/4/3 100/50/75 NR/06/06
WET/SLUSH/SLUSH

EADD 02170225 09C 3/2/1 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.)

OLD

GG EHAMZQZX EDDFZQZX EKCHZQZX
070645 LSZHYNYX

SWLS0149 LSZH 11070700

(SNOWTAM 0149

A) LSZH

B) 11070620 C) 02 D)…P)

B) 11070600 C) 09 D)…P)

B) 11070700 C) 12 D)…P)

R) NO S) 11070920

T) DEICING

Recommendations

- updating State's regulatory framework
  - updating National regulations (transposition of ICAO provisions to the national regulations)
  - filing differences in EFOD / publishing significant differences in AIP (if required)
- establishment of a national implementation team & plan that takes into account the modified ICAO provisions;
- training, awareness, education;
- coordination between AIS, affected aerodromes, ATS units and Users (operators/airlines) of the new requirements and changes (through circular, etc.);
- revision/updating of the software/templates used to issue/receive SNOWTAM (NOTAM/SNOWTAM system);
- updating the formal arrangements between aerodromes and AIS; and
- publication of an aeronautical information circular (AIC) for awareness and readiness of all stakeholders.

ICAO


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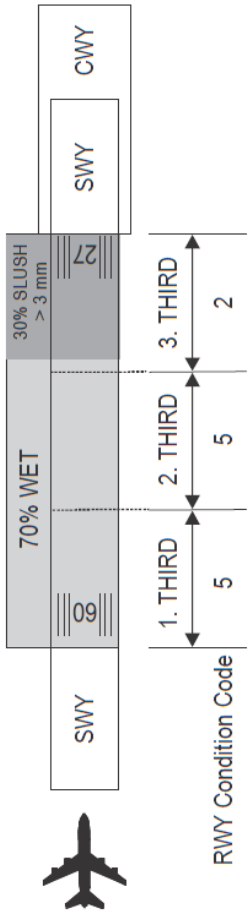
Middle East (MID) Office Cairo
Eastern and Southern African (ESAF) Office Nairobi
Asia and Pacific (APAC) Sub-office Beijing
Asia and Pacific (APAC) Office Bangkok
THANK YOU

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	• 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	***−15ºC 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 −15ºC outside air temperature[1]:*** • 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 [2]	Braking deceleration is significantly reduced for the wheel braking effort applied OR 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



BACK

Percentage of coverage of contaminants

Assessed per cent	*Reported per cent*
10 – 25	25
26 – 50	50
51 – 75	75
76 – 100	100

BACK

Depth assessment for contaminants

Contaminant	*Valid values to be reported*	*Significant change*
STANDING WATER	04, then assessed value	3 mm up to and including 15 mm
SLUSH	03, then assessed value	3 mm up to and including 15 mm
WET SNOW	03, then assessed value	5 mm
DRY SNOW	03, then assessed value	20 mm

Note 1.— For STANDING WATER, 04 (4 mm) is the minimum depth value at and above which the depth is reported. (From 3 mm and below, the runway third is considered WET).

Note 2.— For SLUSH, WET SNOW and DRY SNOW, 03 (3 mm) is the minimum depth value at and above which the depth is reported.

Note 3.— Above 4 mm for STANDING WATER and 3 mm for SLUSH, WET SNOW and DRY SNOW an assessed value is reported and a significant change relates to observed change from this assessed value.

BACK

Condition Description for each Runway Third

- 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 conditions are not reported, this will be signified by the insertion of "NR" for the appropriate runway third(s).

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

BACK