ENCODING SCHEME FOR RUNWAY CONDITIONS DISSEMINATED THROUGH MOTNE (Meteorological Operational Telecommunication Network Europe)

ENCODING SCHEME FOR RUNWAY CONDITIONS

Information of runway conditions will be expressed by means of the figure group RDRDR/ERCReReRBRBR where:

- **R** denotes the runway indicator
- **DRDR** denotes the runway designator
- **ER** denotes the runway deposits
- **CR** denotes the extent or runway contamination
- **eReR** denotes the depth of deposit on the runway
- **BRBR** denotes the friction coefficient or braking action on the runway

The following explanations govern the composition and use of this ten-figure group, or in the case of several parallel runways, eleven-figure group:

**RUNWAY DESIGNATOR**

The message is preceded by indicator R followed by the threshold designator (DRDR). This will be expressed as two digits corresponding to the runway designator, e.g. R09/, R27/, R35/, etc. Parallel runways are designated by the letters L (left), C (centre) and R (right runway).

**Note:**
The information to be included in runway state messages will be for the main instrument runway or runway(s) in use. When parallel runways are in use, information on both runways will be included or, where this is not possible, the information given may not alternate between the two runways, but should be given for the runway with the best surface conditions.

**RUNWAY DEPOSITS**

The type of deposits on the RWY will be indicated by the digits 0 to 9 or a slash (/) in accordance with the following scale as follows:

- **0** Clear and dry
- **1** Damp
- **2** Wet or water patches
- **3** Rime or frost (Depth normally less than 1mm)
- **4** Dry snow
- **5** Wet snow
- **6** Slush
- **7** Ice
- **8** Compacted or rolled snow
- **9** Frozen ruts
EXTENT OF RUNWAY CONTAMINATION

The extent of contamination through deposits on the runway is indicated in percentages in accordance with the following scale: It will be expressed as a single digit:

1
up to 10% of runway contaminated (covered)

2
more than 10% to 25% of runway contaminated (covered)

5
more than 25% to 50% of runway contaminated (covered)

9
more than 50% to 100% of runway contaminated (covered)

/ not reported (e.g., due to runway clearance in progress).

DEPTH OF DEPOSIT ON THE RUNWAY

The depth of deposit is indicated by two digits in accordance with the following scale:

- 00 less than 1mm
- 01 = 1 mm
- 02 = 2 mm
- etc.
- 10 = 10 mm
- etc.
- 15 = 15 mm
- etc.
- 20 = 20 mm
- etc. up to
- 90 = 90 mm

Thereafter, the depth is indicated by:

- 92 = 10 cm
- 93 = 15 cm
- 94 = 20 cm
- 95 = 25 cm
- 96 = 30 cm
- 97 = 35 cm
- 98 = 40 cm or more
- 99 = runway or runways non-operational due to snow, slush, ice, large drifts or runway clearance.
- // = Depth of deposit operationally not significant or not measurable.

Note 1:
This does not necessarily require depth to be measured to a millimeter unit. Larger intervals up to 90 can be expressed by using the above direct-reading scale.

Note 2:
Where depth is measured at a number of points along a runway the average value should be transmitted or, if operationally significant, the highest value.

Note 3:
Code Figure 91 is not used. Code Figures 92 to 98 permit the depth of deposit (in cm) to be derived by multiplying the last digit by 5 (e.g. 94 = 4 x 5 = 20).

Note 4:
If deposits of the type reported by the code figures 3, 7, 8 and 9 of code ER are reported, the depth of deposits is normally not significant and two oblique strokes /// will be reported. Similarly, the depth of standing water will only be reported if an accurate and representative measurement is guaranteed.

FRICITION CO-EFFICIENT OR BRAKING ACTION ON THE RUNWAY

The friction co-efficient is denoted by two digits or, if the co-efficient is not available, the estimated braking action is denoted by two digits.

a. Friction co-efficient

Example:
- 28 - friction co-efficient 0.28
- 35 - friction co-efficient 0.35
- etc.

b. Braking action
- 95 = Good
- 94 = Medium / Good
- 93 = Medium
- 92 = Medium / Poor
- 91 = Poor
- 99 = Unreliable
- /// = Braking action not reported; Runway not operational, Aerodrome closed; etc.

Note 1:
Where Braking Action is assessed at a number of points along a runway, the mean value will be transmitted or, if operationally significant, the lowest value.

Note 2:
If measuring equipment does not allow measurement of friction with satisfactory reliability, which may be the case when a runway is contaminated by wet snow, slush, or loose snow, the figures 99 will be used.

Note 3:
If the braking conditions cannot be reported (e.g. due to runway clearance in progress, runway not operational, runway conditions not watched during airport closure, etc.) two oblique strokes /// will be entered.

EXAMPLES

The occasion may arise when a new report or a valid report is not available in time for dissemination with the appropriate METAR message. In this case, the previous runway state report will be repeated, as indicated by the figures R99/ in place of the runway designator.

R99/421594
Dry snow covering 11% to 25 % of the runway: depth 15mm; braking action medium to good.

R14L///99/ /
Runway 14L non-operational due to runway clearance in progress.

R14L////////
Runway 14L contaminated but reports are not available or are not updated due to aerodrome closure or curfew, etc.

R88////////
All runways are contaminated but reports are not available or are not updated due to aerodrome closure or curfew, etc.

R14L/CLRD//
Runway 14L contamination has ceased to exist.
(No further reports will be sent unless recontamination occurs).