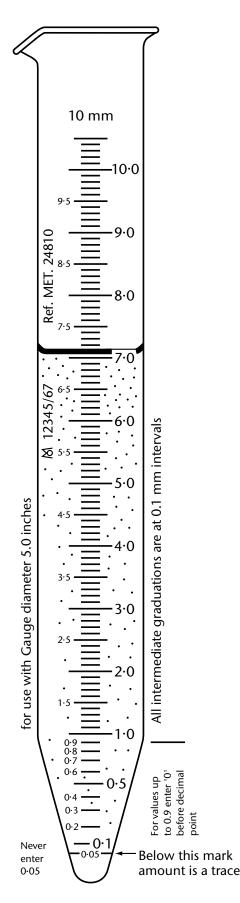
Rules for Rainfall Observers

The following four pages are intended for easy reference and may be extracted from the brochure to be kept in a convenient place.





Measurement of rainfall

Using Met Office daily measure MET. 24810

Each observer should have ready access to a copy of the Met Office leaflet *Rules for Rainfall Observers*.

Abbreviated notes

Each morning at 9 a.m. UTC, carefully empty all the contents of the glass collecting bottle into the graduated measure and, **holding the measure level with your eye**, read off the graduation mark nearest to the **bottom** of the water's meniscus. Always record the amount **with one figure after the decimal point** — see diagram alongside showing intermediate graduation values and the correct form of entry. Rainfall read in the morning is **yesterday's** rainfall and is therefore entered against yesterday's date, **not** the date on which the amount is actually read.

Amounts exceeding 10.0 mm require to be measured in stages, each portion being added, with due regard to the correct positioning of the decimal point. Only when the amount is 10.0 mm or more is rainfall entered as three figures.

Snow or **hail** in the funnel at the time of reading must **not** be thrown away but should be melted and **added** to any water in the bottle, and the whole amount measured.

Beware of leftover droplets from yesterday being incorrectly noted as a trace when the weather has been dry since yesterday's measurement.

Also remember to enter 'tr' (trace) on those occasions when you know there has been slight rain, drizzle, snow etc. since yesterday's reading, even though the bottle is dry. A few spots still qualify for 'tr'.

In the diagram, only the graduations in large type are engraved on the measure. The smaller numerals are shown here for guidance and are not engraved on the measure.

When there is no rainfall, enter a dash (or follow special instructions when issued).

Trace entries

Do NOT enter 'tr' when:

you know, or it is quite obvious, that there has been no rain etc. in the period since the previous observation, even if drops from a previous measurement remain. Nil rainfall is entered as a dash.

DO enter 'tr' when:

- (a) you know it has rained since the previous observation but the bottle is bone dry;
- (b) it has rained, but the amount of water does not reach the lowest mark on the measure, 0.05 mm;
- (c) it has not rained, but dew [tr(w)], frost [tr(x)] or wet fog [tr(fe)] was heavy enough to collect in the rain-gauge bottle.

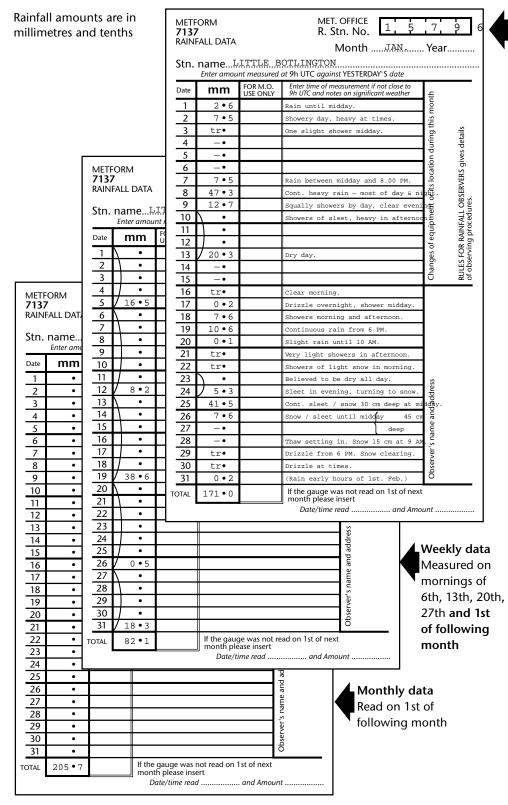
Accumulated totals

Please keep the number of accumulated totals to the absolute minimum as regular daily readings aid investigations and research into rainfall.

Unusual occurrences

- (a) Please note if the gauge is flooded.
- (b) Please confirm high daily amounts.
- (c) Make a note if the gauge is buried in snow.
- (d) Make a note if the reading is for melted snow.

Missing daily values — what to do



Example 1

Represents the record from a station normally taking daily readings of rainfall, but at which it was not possible to measure the rainfall on the mornings of the 11th, 12th and 13th, with the result that the measurement on the morning of the 14th represented a four-day total.

Note

In bracketing the four days together, the standard practice of treating a morning's rainfall measurement as being 'yesterday's rainfall' is continued. The correct procedure for this example is to bracket together the rainfall dates of the 10th, 11th, 12th and 13th, and to enter the accumulated total against the last date of accumulation. A second example shows a two-day accumulation of the rainfall for dates 23rd and 24th, arising from the fact that no measurement was taken on the morning of the 24th.

Weekly obs.

Enter values in basically the same way as a seven-day accumulation, entering the week's total to the date prior to that of actually taking the measurement.

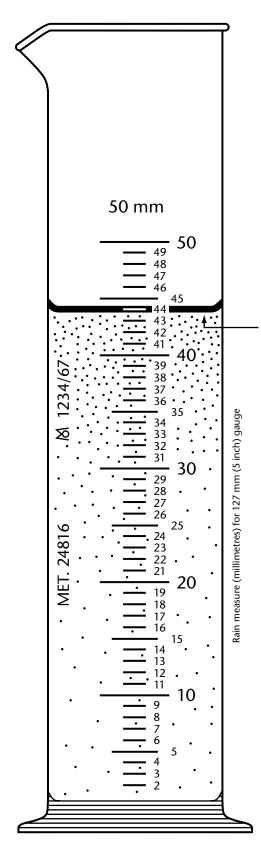
Monthly obs.

The month's total need only be entered in the total column; no bracketing of the month's daily totals is necessary. The month's total rainfall is read on the morning of the first day of the next month.

Daily measurements should be taken at the same time each morning. Such standard procedures enhance the value of your records.

This procedure also applies to Metform 1091.

Before despatch, check that the postcard includes station name, time of observation, year and month.



Measurement of rainfall

Using Met Office daily measure MET. 24816

Each observer should have ready access to a copy of the Met Office leaflet *Rules for Rainfall Observers*.

Abbreviated notes

The measure is engraved with graduation lines at intervals related to **whole millimetres** of rainfall with guide numbers at 10 mm, 20 mm, ... 50 mm levels. On the drawing shown (left), the intermediate graduation lines are also labelled for your guidance.

Do not fill the measure beyond 50 mm mark. If the rainfall amount is over 50 mm, measure it in stages, noting each amount as read and then adding the values together to obtain the total amount.

Stand the measure on a level surface. If you lift up the measure to read the graduation, avoid tilting it and always hold it up at eye level. There are 10 mm graduations on the back of the measure to assist back–front levelling. Take the value of the graduation line nearest to the **bottom** of the water's meniscus (44 mm on this example).

Monthly rain gauges should be measured on the **first day**, not the last day, of each month and as close to **9 a.m. UTC** as possible. Always record date/time read on the card.

An observer unable to measure at the correct time should log the time of the reading and, when practicable, record and report any significant precipitation that fell between 9 a.m. UTC and the measurement, e.g. 'heavy rain still falling; measured at 2 p.m. BST'. An observer involved in travelling to measure scattered mountain gauges is recommended to follow the same sequence and times each month.

Snow or **hail** found in the funnel should be melted and **added** to water in the gauge for inclusion in the measurement. When a gauge is found to be **buried under snow**, the contents, albeit suspect, should still be measured, noted with normal snow-depth notes and a report that the gauge was found buried.

If a dip rod is used, this value should be recorded first, but the amount from this glass measure becomes the official total.

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