

Monthly 'Rainfall and River Height Observations' form (F 68)

This sample copy of the form F 68 below shows how to enter your rain gauge readings. The boxed explanatory notes against the different entries should be read in conjunction with the detailed instructions printed on the right hand side of the form.

IMPORTANT
Always read the gauge to the nearest even decimal point
Enter the amount against the date the gauge was read

When the gauge is empty no reading is required

Always enter 0 before the decimal point when the reading is less than 1mm

Include dew in the 'TOTAL RAINFALL' but do not include it in 'NO. OF DAYS ON WHICH RAIN FELL'.

Include remarks if there is reason to suspect an error in the reading

Most of this rain fell on the 12th but it was measured at 0900 on the 13th. The rainfall amount must be entered against the date on which it was measured

Less than 0.1mm was measured in the gauge. Do not include this in the 'NO. OF DAYS ON WHICH RAIN FELL'.

Include the amount of fog in the 'TOTAL RAINFALL', but do not include it in the 'NO. OF DAYS ON WHICH RAIN FELL'.

The Observer was absent on the 25th. The measurement on the 26th represents the total for the two-day period.

Always enter 0 after the decimal point when the reading is a whole number of mm

There are 8 rainfall entries in column 2, but only 5 are counted as raindays. FOG, DEW and TRACE are not counted

Please keep a copy of these readings on the yearly form F71 provided with your annual stationery or the 5 yearly rainfall register booklet B1 available from the Bureau of Meteorology in your state.

The official name of your station should be entered in this space

Advise the Bureau of Meteorology in your state if the postal address printed here is incorrect

Please ensure that every form forwarded includes your station number here



Australian Government
Bureau of Meteorology

RAINFALL AND RIVER HEIGHT OBSERVATIONS

Please ensure that the name of the station, State, month and the Year are clearly entered on this form which should be forwarded on the last day of the month whether or not any rain has fallen during the month.

F 68
Material No. 502102

086071

STATION				STATE	MONTH	YEAR
YARRA GLEN (HILLVIEW)				VIC	APRIL	2009
DATE WHEN GAUGE READ	RAINFALL AMOUNT IN GAUGE (millimetres)	RIVER HEIGHT (metres)	REMARKS			
(1)	(2)	(3)	(4)			
1	.	.				
2	.	.				
3	.	.				
4	0.6	.				
5	.	.				
6	.	.				
7	0.2	.	DEW			
8	.	.				
9	.	.				
10	27.4	.	FUNNEL BLOCKED WITH HAIL			
11	.	.				
12	.	.				
13	12.8	.				
14	.	.				
15	.	.				
16	.	.				
17	TRACE	.				
18	.	.				
19	.	.				
20	.	.				
21	0.2	.	FOG			
22	.	.				
23	.	.				
24	.	.				
25	.	.				
26	29.4	.	2 DAYS			
27	.	.				
28	.	.				
29	.	.				
30	14.0	.				
31	.	.				

	TOTAL RAINFALL	NO. OF DAYS ON WHICH RAIN FELL
THIS MONTH	84.6	5
DURING PAST 3 MONTHS OF THIS YEAR	103.2	12
SINCE 1ST JANUARY THIS YEAR	187.8	17

Please tick as applicable.

I/we read the rain gauge each day.

The rain gauge was not read on Saturdays.

The rain gauge was not read on Sundays.

The rain gauge was not read on some other days as indicated.

1. Please read the rain gauge every day at 0900 and enter the reading against the date of reading the gauge. If the rainfall amount entered against a certain date is for more than 1 day, please enter '2 days', '3 days' etc as applicable in the remarks column.

2. If the gauge is empty no entry need be made against the date.

3. If the reading is less than 0.1 of a millimetre (i.e., below the first graduation on the measure) enter the word 'trace' in column 2. Note that days on which the rainfall is less than 0.1mm are not counted as days of rain.

4. If the amount of precipitation in the gauge is 0.1mm or more enter the reading to the nearest 0.2mm eg. record 0.1mm in column 2 as 0.2 and 1.4mm as 1.4. If the gauge is equipped with a dipstick, enter readings as detailed in the Bureau publications issued to you namely, "Observing the Weather" (Part 1 Item 6) or "The Australian Rainfall Observers Guide."

5. If the amount of precipitation measured in the gauge is due ENTIRELY to frost, fog or dew please enter the amount and the word 'frost', 'fog' or 'dew' immediately after the amount. Note that although an amount is entered, these particular days are not counted as days of rain.

6. If there is any reason to suspect that the reading of the gauge may be in error, please enter the amount in the rainfall column and enter the reason for suspecting an error in the 'Remarks' column. Examples are 'Gauge overflowed', 'Gauge leaking', 'funnel blocked with hail (or snow)'. In the case of snow or hail in the funnel or gauge, please see your instructions for the correct procedure. If the gauge or rain measure is damaged please notify the Regional Director of your state as soon as possible (see back).

7. If you have been requested to make observations of river height please enter daily reading in metres to two decimal places, in column 3.

8. If you have been instructed to report your rainfall (and / or river) observations, please follow the instructions provided. Report all rainfall amounts of 0.2mm or more, and ensure that a monthly total is reported on the last day of each month. If you submit your message by telephone, please pay particular attention to calling the figures distinctly.

SPECIAL OBSERVATIONS

9. A space for special readings in times of heavy rain or flood has been provided on the back of this form.

86071 YARRA GLEN (HILLVIEW)

Mrs J Smith
PO Box 1636
YARRA GLEN VIC 3775

If the above address is not correct for your site please amend it

Date forwarded 1 / 5 / 2009

(Please forward completed form in envelope provided)

June 2004

MEASURING RAINFALL

A GUIDE FOR BUREAU OF METEOROLOGY RAINFALL OBSERVERS

The Importance of Rainfall Observations

Rainfall observers provide an invaluable service to the community.

Over 7000 voluntary observers throughout Australia make daily rainfall measurements for the Bureau of Meteorology.

The observations are used for many purposes such as forecasts and flood warnings, and for research into irrigation, land use, drought, storms, flood control, climate change and many other aspects of agriculture.

The observations are valuable only if they are accurate and taken from a standard rain gauge that is well maintained and suitably sited.

It is the purpose of this Guide to provide instructions for the correct method of making the observations and to help you achieve and maintain the Bureau of Meteorology's high standards of rainfall measurements.

The Rain Gauge

The standard 200/203 mm rain gauge has a capacity of approximately 200 mm of rain and a funnel diameter of 203 mm.

Each rain gauge consists of the following parts:

- The steel outer case which is set into the ground;
 - The rainfall container, which fits into and is protected by the outer case;
 - The collector funnel, which fits over the rim of the inner rainfall container;
 - The rain measure, which is left in the inner rainfall container.
- The standard measure is graduated in 1 mm divisions up to 20 mm, with 0.2 mm subdivisions.

Observation times

The standard rainfall observation time is 9 a.m. local time. Taking readings at this time is particularly important during a rainfall event.

Additional observations, for example during and soon after heavy sustained rain or following an intense thunderstorm, are welcome and should be recorded in the space provided on the reverse side of the monthly rainfall form F68.

Reading the rain gauge

Remove the funnel and lay it on the ground on its side, taking care not to damage the outlet hole or allow it to become blocked with soil.

To read the measure it should be held so the water surface is at eye level and with the measure kept as vertical as possible. Readings are taken to the bottom of the meniscus (the curve of water clinging to the side of the measure).

If the measure overflows or is reading more than 20mm some of the water in the measure must be tipped back into the rainfall container until a reading against the scale can be made. Record this amount then empty the measure. Pour the remaining rain from the steel container into the measure and add this amount to the previous reading or readings.

Rainfall should always be recorded to the nearest 0.2mm. Less than 0.1mm is recorded as a TRACE. See the 'Entry of Information on form F68' brochure for more information

Absence of Observer

The continuity of the observations is very important. If possible try to arrange for the observations to be taken by a relief observer during any extended absence of the usual observer.

Recording observations

Each station is provided with:

- A rainfall register booklet (B1); to be kept at your location.
- An annual form (F71); which can be used for displaying your readings to the public.
- A number of monthly Rainfall forms (F68) and pre-paid envelopes

Record rainfall on the form against the date the gauge was read. If the rainfall measured fell over more than one day indicate the period in the 'Remarks' column of the form F68. See the 'Entry of information on form F68' brochure for more information.

Rainfall stations asked to report daily will be supplied with a Remote Observations Terminal (ROT) and provided with training in its operation.

Rainfall data is processed and studied by a number of different users within the Bureau of Meteorology. **Please post the monthly form F68 each month - even if you transmit your readings by a ROT** The form F68 is considered the official record and is kept as a permanent record of your rainfall.

The monthly F68 form is still required even when no rainfall has been recorded throughout the entire month.

It is also important that you keep the rainfall register booklet on station and up to date. This is in case the monthly form becomes lost and Bureau officers request another copy of the missing data.

Siting of the rain gauge

It is important when comparing rainfall readings from different locations that the gauges are consistently sited and read to the Bureau of Meteorology's standards.

Records for a location that go back over a number of years are extremely valuable if it is known that the rain gauge exposure has remained relatively unchanged and to the Bureau's siting standard over that period

Ideally the rain gauge should be located in a large, open and secure area. Gauges sited near buildings, solid fences or trees can have substantial errors in the measured rainfall.

The gauge should be located on a surface representative of the local environment. Gauges should not be installed on hard surfaces such as bitumen or concrete.

The distance of the gauge from buildings, trees or other objects should be at least twice the height of the obstruction and preferably four times the height.

The rain gauge should be installed so that the top of the collector funnel is 300 mm above the ground. The collector funnel must be level. Unless unavoidable the gauge should not be mounted on a fence post or pole

Maintenance of the rain gauge

There are some very simple steps you can take to make sure that the rainfall data that you provide is of the best possible quality:

Each time you read the gauge:

- Check that the collector funnel is clean and the hole is not blocked.

Periodically:

- Check the general condition of the inner rainfall container - particularly any leaking at the seams.
- Keep the height of the surrounding grass trimmed to a few centimetres within one metre of the gauge.
- Keep any foliage trimmed before it exceeds the 1:2 rule above.

Please do not relocate the rain gauge without first contacting the Bureau of Meteorology.

Should you require any advice, extra stationery or wish to advise of a change of details contact the Victorian Regional Observations Section.



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