

INSTRUCTIONS FOR W. B. FORM 612-14

Section A.—TAKING THE OBSERVATIONS

1. *Reading the Thermometers.* First read the minimum thermometer at the right-hand end of the index. Next, slowly lower the maximum thermometer to the vertical position and read the value at the top of the mercury column. Then whirl the maximum thermometer until its reading is the same as that at the top of the alcohol column of the minimum thermometer and again read the maximum thermometer and record the temperature "at observation." Now reset the minimum thermometer by tipping until the index slides to the top of the alcohol column. Both thermometers should then be returned to the nearly horizontal position. *Note.*—If the temperature of the reset maximum thermometer in the vertical position is more than one degree different from that of the reset minimum, please make a note in "Remarks."

You may read your thermometers as many times a day as you wish but they must not be reset except at the time you have written at the heading of your form. Similarly, you may measure the precipitation as frequently as you wish but the rain gage must not be emptied except at your regular time of measurement.

2. *Measuring Liquid Precipitation.* Insert the measuring stick in the measuring tube and withdraw after 2 or 3 seconds. Read at the top of the wet area to obtain the amount of precipitation. *Note.*—If the measuring tube is full or has overflowed it contains just 2.00 inches. After carefully emptying the tube, pour some or all of the water from the overflow can into the tube and measure that amount. The total for the day will be the sum of the individual measurements. Both the overflow can and measuring tube should be empty when the measurement has been completed.

3. *Measuring Frozen Precipitation.* When snow, sleet, or hail is likely to occur, remove the funnel and measuring tube from the overflow can. Melt the snow, sleet, or hail by pouring a measured amount of warm water into the can. Measure the total amount of water in the can. Subtract from this total the amount of warm water added to obtain the precipitation (melted) for the day.

a. To measure "snow, sleet, and hail," take measurements of the *new snow* in several places and average the measurements.

b. To measure "At Obsn., Snow, Sleet, Hail, Ice on gnd.," average several measurements of the total snow, etc., in an area where the snow has not drifted.

Section B.—ENTERING THE DATA

1. Please fill in the blanks at the top of the form including the time of observation. If temperature and precipitation are recorded at different times of the day, both times should be given. Enter the appropriate time zone: Example—"Central." If daylight saving time is used, enter a "D" after the name of the time zone: Example—"Central D."

2. *Entering Temperatures and Precipitation Values.* All measurements should be entered on the dates on which they are made. Maximum and minimum temperatures and the values for rain, snowfall, etc., are for the full 24 hours ending at observation time.

a. *Temperature.* The maximum and minimum temperatures are read according to Paragraph A-1. These values are entered in the first two columns. Below-zero readings are preceded by a minus (—) sign. Temperatures "at observation" time are read from the maximum thermometer after whirling but while still in the vertical position. They may also be read from the reset minimum thermometer.

b. *Duration of Precipitation Blocks.* Please enter the hours of precipitation even though you may not always know them exactly. Enter the precipitation time by drawing a straight line (————) through the hours of occurrence. Quite often the time of precipitation is uncertain to you, especially at night or when you are away from home. In that case, please draw a wavy line (~~~~~) through the hours when precipitation probably occurred. Precipitation times are shown for the calendar days on which precipitation actually occurred.

c. *Precipitation—"24-hr. amounts" and "at obsn."* Please make the entries for each date. Use "0" for no precipitation and "T" for a trace.

(1) "Rain, Melted Snow, etc." is entered to the nearest hundredth inch such as ".11"; a "T" means less than .01 inch.

(2) "Snow, Sleet, Hail" is measured to the nearest tenth inch, e.g., ".1" and a "T" here means less than .1 inch.

(3) "At obsn., Snow, Sleet, Hail, Ice on gnd." is measured to the nearest whole inch, e.g., "1", not "1.0" or "1.00." "T" in this column means less than a half inch.

d. *Weather (Calendar Day).* The columns marked fog, sleet, glaze, thunder, hail, and damaging wind are designed for easy recording of these elements. Please enter an "X" for the date on which any of these events occur. This information is very helpful in studying the climate of your area.

e. The column "Time of Obsn. if different from the above" is used only when you are unable to take an observation within 1 hour of the regular time to precipitation, it should be encircled.

f. The additional space for Remarks, etc., can be used for other weather conditions not covered, or to add information such as time of a storm, severity of damage, etc. These additional remarks are often the only source of information about unusual weather in your area and they can be very important.

Section C.—COMPLETING THE FORM

1. As soon as the last weather entry for the month is completed, please enter in the lower right-hand portion of the form information as to supplies needed. We would also appreciate your entering the observer's name, the post office address, the station name, and the month and year at the bottom of the form. Even though some of this information is found at the top, it is very helpful to us if it is also entered at the bottom. There is *no need* to enter sums, averages, extremes, or "greatest" since these values are entered at the processing center.

2. REMEMBER that your original record is a very important document that will be preserved for a long time. Either the original or a microfilm of it will be referred to repeatedly during the years ahead.

Section D.—MAILING THE FORM

As soon as the forms are completed at the end of the month, mail the original and one carbon copy to the designated office using the postage-free envelope provided. Another carbon copy should be preserved by you for at least 2 months or until you are sure that the original has arrived safely at its destination. After that you are free to keep the carbon copy or to destroy it.

Section E.—COMPLETENESS AND ACCURACY

We know that you want to do the best possible job. Please write carefully, using a sharp pencil. Do not erase or write over an incorrect entry; draw a line through it and record the correct figure nearby or on the margin. Use new carbon paper whenever needed to make a good copy.

It would be very helpful also if the following points could be checked after each day's observation is completed:

(1) a. For temperature stations the *maximum* temperature should be at *least* as high as the *temperature at observation time* for that date and for the date previous.

b. The *minimum* temperature should also be at *least* as low as the *temperature at observation time* for that date and for the date previous.

(2) If any form of precipitation has fallen during the 24 hours prior to the observation, there must be a "T" or an amount in the "Rain, Melted Snow, etc." column. Whenever snowfall occurs, there must be at least two such entries, one for total precipitation and one for the snowfall.

(3) If there is snow on the ground at observation time there should be a "T" or an amount in the "At obsn." snow column. There should also be a snowfall entry on that date or on a previous date to account for it.

Section F.—REVIEW OF INSTRUCTIONS

For more detailed instructions and information concerning your observations consult your copy of Circular B, "Instructions for Climatological Observers." Please do this frequently and especially before the beginning of the snow season. Also feel free to ask your Field Aide or Regional Substation Management Unit for information at any time.

RECORD OF CLIMATOLOGICAL OBSERVATIONS

Time of observation (local time) if once daily 6P

Time of observation (local time) if once daily 6P

If at different times, temperature _____, precipitation _____

[illegible]

[illegible]

GPO : 1956-O-229-359

3
2
1
7
6
5
4
3
2
1

Handwritten weather data on a grid. Includes station name 'HAWTHORNE', date '10/10/67', and various weather observations like 'Partly Cloudy' and 'Overcast'. The grid contains numerical data for temperature, precipitation, and other meteorological factors.

Official weather record form with sections for 'RECORD OF CLIMATOLOGICAL OBSERVATIONS', 'TEMPERATURE', 'PRECIPITATION', and 'WEATHER (CALENDAR DAY)'. It includes a detailed table for hourly observations and a summary section at the bottom.

Large grid area for weather observations, including sections for 'TEMPERATURE', 'PRECIPITATION', and 'WIND'. Includes handwritten notes and data entries.

County: MAINE State: MAINE Standard time in use: FDT

Date		24 hrs. ending at observation		At obsn.		PRECIPITATION												WEATHER (CALENDAR DAY)		Important weather conditions not included in 'Weather' block, remarks, etc.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		Max.	Min.	Draw a straight line (—) through hours precipitation was observed, and a wavy line (---) through hours precip. probably occurred unobserved.												Mark 'X' for all types occurring each day		Time of Obsn. if different from the above																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
				A.M.						P.M.						At obsn. Snow, Sleet, Hail, Ice on ground (inches)				Rain, Melted snow, etc. (ins. & hundredths (ins. & tenths))		Fog		Glaze		Thunder		Hail		Damaging Wind																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Grid area for weather data recording, including fields for Date, Time, Temperature, and Precipitation.

County: Monroe State: Mississippi Standard time in use: E.D.T.

TEMPERATURE °F			PRECIPITATION												WEATHER (CALENDAR DAY)					Important weather conditions not included in 'Weather' block; remarks, etc.			
Date	24 hrs. ending at observation		At obsn.	Draw a straight line (—) through hours precipitation was observed, and a wavy line (~~~~) through hours precip. probably occurred unobserved.												Fog	Sleet	Glaze	Thunder	Hail	Damaging Wind	Time of Obsn. if different from the above	
	Max.	Min.		A.M.	NOON	P.M.	1	2	3	4	5	6	7	8	9								
				1	2	3	4	5	6	7	8	9	10	11		Rain, Melted snow, etc. (ins. & hundredths)	Snow, Sleet, Hail, etc. on obs. (inches)						
1																							
2	86	54	75																				
3	77	53	70																				
4	79	51	73																				
5	76	48	63																				
6	74	56	71																				
7	76	48	71																				
8	78	51	70																				
9	78	52	75																				
10	79	51	74																				
11	71	51	61													.32							
12	66	56	60													.53							
13	68	60	67													1.74							
14	68	58	67													.27							
15	87	59	80																				
16	77	64	70																				
17	91	74	86																				
18	90	64	85																				
19	87	60	80																				
20	81	51	67																				
21	70	56	60																				
22	73	57	73																				
23	80	56	75																				
24	77	52	71																				
25	74	54	68																				
26	72	60	68																				
27	74	58	70																				
28	72	65	71													.06							
29	75	60	81													.67							
30																.41							
31																							
Sum	2321	1692																					
Avg.	77.4	56.4																					
Ex-treme																							
Observer	Post. Office												Station	Month	Year	Check ☐ when additional sheet is used for remarks							

