

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., ".11" 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., "2"; not "2.00." "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 listed at the top of the form. If the time entry in this column applies only 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.

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

1994

Month Sample 1956

100

Fog	Sheet	Gloze	Thundr	Hall	Corroding Wind
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Check ☒ when additional sheet is used for remarks
 List forms or supplies needed Carbon paper, envelopes + carbonization sheets
 Station Your station Month _____ Year 1956 Sample _____

Handwritten weather observations on a grid. Includes temperature readings (e.g., 21, 15, 18) and other data points. The text is written in cursive and matches the printed labels on the form.

Station BAR HARBOR
County HAMPSHIRE
State MAINE
Month FEBRUARY, 1965
Time of observation (local time) if once daily 5:00 PM
Standard time in use E

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.	24-hr. amounts		At obsn.	Mark 'X' for all types occurring each day
				Rain, Melted snow, etc. (ins. & hundredths)	Snow, Sleet, Hail (ins. & hundredths)		
1	21 15 18					11	Clear
2	32 12 25			.20	2.5	12	Partly cloudy
3	26 9 17					12	Clear
4	18 1 10					12	Clear
5	16 -3 10					12	Overcast
6	25 7 24			.22	5.2	15	Clear
7	39 3 34			T	T	13	PT. CLOUDY
8	41 35 40			.49		8	Rain
9	42 23 26					8	Clear
10	26 7 20			.07	.7	8.7	Cloudy
11	43 20 41			.21		8	Clear
12	44 18 34			.12		8	Rain
13	43 32 32			.17		5	Clear
14	32 7 15					5	Clear
15	32 10 28					5	Clear
16	41 26 38					5	Clear
17	38 13 26					5	Clear
18	32 10 32			.10	.2	7	Overcast - snowing
19	33 15 20			.01	T	7	Overcast - snowing
20	20 5 18					6	Clear
21	29 3 24					6	PT. CLOUDY
22	37 14 15			.52	6	12	Overcast - snowing
23	18 4 16				T	12	Clear
24	25 2 20					11	Clear
25	34 5 34			.87		11	Clear
26	43 31 32			1.24		7	Rain
27	33 13 21					6	Partly cloudy
28	32 9 32					6	Clear
29							Clear
30							PT. CLOUDY
31							Clear
Sum	677	350		4.20	16.4		
Avg	31.3	12.5					
Ex-							
Items							

Handwritten weather observations on a grid. Includes temperature, precipitation, and cloud cover data for various dates and times. The grid is divided into sections for different types of weather observations.

RECORD OF CLIMATOLOGICAL OBSERVATIONS
Station BAL HARBOR
County HAWAII
State MAINE
Month July 1960
Standard time in use EST

Handwritten weather observations on a grid. Includes temperature, precipitation, and cloud cover data for various dates and times. The grid is divided into sections for different types of weather observations.

50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

DATE: 10/10/1965

TEMPERATURE: 74.5

PRECIPITATION: 0.01

WIND: 10

WEATHER: CLEAR

STATION: BAR HARBOR

COUNTY: HANCOCK

STATE: MAINE

RECORD OF CLIMATOLOGICAL OBSERVATIONS

STATION: BAR HARBOR

COUNTY: HANCOCK

STATE: MAINE

DATE: 10/10/1965

TIME OF OBSERVATION: 1:00 P.M.

PRECIPITATION: 0.01

WIND: 10

WEATHER: CLEAR

Date	TEMPERATURE °F		At obs.	PRECIPITATION		24-hr. amounts	WEATHER (CALENDAR DAY)		Important weather conditions not included in 'Weather' block; remarks, etc.
	Max.	Min.		A.M.	P.M.	Rain, melted snow, etc. (ins. & hundredths)	At obs. Snow, Sleet, Hail, ice on grid (inches)	Mark 'X' for all types occurring each day	
1	78	72	74						CLEAR
2	74	54	59						CLOUDY
3	69	54	67			.09			pt. cloudy
4	78	59	75						CLEAR
5	80	55	77						CLEAR
6	83	55	78						pt. cloudy
7	88	64	84						pt. cloudy
8	85	60	76						CLEAR
9	80	67	75						pt. cloudy
10	76	65	74						CLEAR
11	74	51	69						pt. cloudy
12	76	72	75			.23			CLEAR
13	79	59	76						CLEAR
14	78	56	75						CLEAR
15	70	62	78						CLEAR
16	85	62	79						pt. cloudy
17	79	67	77						OVERCAST
18	78	53	76						SCATTERED clouds
19	78	64	70						haze cover
20	77	63	69			0.26			PT. CLOUDY
21	70	51	68						SCATTERED clouds
22	78	59	69						pt. cloudy
23	74	49	73			.08			SCATTERED clouds
24	77	54	70						pt. cloudy
25	70	50	61						CLOUDY
26	62	54	57						OVERCAST
27	72	53	76			0.01			CLEAR
28	72	53	75						CLEAR
29	73	45				.29			CLOUDY
30	59	45	57			.05			PT CLOUDY
31	61	57	56						CLOUDY
Sum	2340	1777				1.01			
Avg	75.5	57.3							
Ex-Frame									

Handwritten notes and data on the left side of the page, including station information and a large grid for recording observations.

STATION NAME: BAR HARBOR
COUNTY: HANCOCK
STATE: MAINE
DATE: SEPTEMBER 1965
RECORD OF CLIMATOLOGICAL OBSERVATIONS

TEMPERATURE °F		PRECIPITATION		WEATHER (CALENDAR DAY)		24-hr. amounts		At obsn.		Mark 'X' for all types occurring each day		If different from the above		Important weather conditions not included in 'Weather' block; remarks, etc.	
24 hrs. ending at observation		Draw a straight line (—) through hours precipitation was observed, and a wavy line (~~~~) through hours precip. probably occurred unobserved.		Rain, Melted Snow, Sleet, snow, etc. (ins. & hundredths)		Snow, Sleet, Hail, on and on (inches)		Fog		Thunder		Hail		Wind	
Date	At obsn.														
1	55 43 54													OVERCAST	
2	72 51 69													CLEAR	
3	72 49 67													CLEAR	
4	70 43 68													CLEAR	
5	72 42 70													CLEAR	
6	76 42 95													11th. Cloudy	
7	73 56 71													PT. Cloudy	
8	73 50 71													CLEAR	
9	72 47 62													CLOUDY	
10	68 50 67													PT. CLOUDY	
11	75 60 66													PT. CLOUDY	
12	67 43 68													CLEAR	
13	63 43 53													CLOUDY	
14	60 43 59													PT. CLOUDY	
15	60 48 54													PT. CLOUDY	
16	74 53 64													CLOUDY	
17	65 41 59													11th. Cloudy	
18	69 54 64													CLEAR	
19	68 38 57													CLOUDY	
20	74 57 49													CLEAR	
21	82 59 82													CLEAR	
22	72 58 62													CLEAR	
23	69 53 69													CLEAR	
24	70 54 60													CLOUDY	
25	63 55 61													CLOUDY	
26	65 50 60													CLEAR	
27	61 41 57													CLEAR	
28	52 30 49													CLEAR	
29	58 43 57													CLOUDY	
30	57 35 48													CLEAR	
31															
Sum	2023 1927														
Avg	67.4 47.6														
Ex-															

Blank observation form grid with columns for Date, Time, Temperature, Wind, Clouds, and other weather data. Includes a large grid for hourly observations and a summary section at the bottom.

RECORD OF CLIMATOLOGICAL OBSERVATIONS

Station: 17-0371-3
Date: December 1965
Observer: [Name]
Post Office: [Address]
Month: December, 1965

TEMPERATURE		PRECIPITATION														WEATHER CALENDAR DAY										Important weather conditions not included in 'Weather' block; remarks, etc.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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	Max.	Min.	A.M.						P.M.								Rain, Melted snow, etc. (line & hundredths)	Snow, Sleet, Hail (line & tenths)	Snow, Sleet, Hail, Ice on ground (inches)	Fog	Sleet	Glaze	Thunder	Hail	Damaging Wind																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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