

BAR HARBOR

INSTRUCTIONS FOR W. B. FORM 612-14 (Formerly 1009)

17-0371

1. Observations should be taken at a regular hour each day, preferably between 5 p. m. and 8 p. m., since normally the thermometers then register the highest and lowest temperature for the day. Observations should be taken at approximately the same time during the entire year. If you have been instructed to measure the precipitation in the morning, or if it is necessary for any reason that you read the thermometers in the morning, an evening temperature observation should also be taken. If thermometers are read twice daily, they should be set only at the evening observation. Temperatures entered on this form will then be for the 24 hours ending at time of evening observations, while the precipitation will be for the 24 hours ending at time of morning observations. The time (or times) of the observations should be entered in the heading on the form. W. B. Form 612-7 (formerly 1011), "Official Weather Observer's Record" may be used to record the observations as they are taken. If Form 612-7 (formerly 1011) is used the data should be promptly copied into Form 612-14. Form 612-7 (formerly 1011) may be retained by the observer. Additional instructions may be found in Circular B and other special circulars as issued, and they should be studied carefully by every observer.
2. Begin a new form on the first of every month. Fill in the heading completely. Enter the station name as it appears in the "Meteorological Data." Standard of time in use should be shown by the letters E, C, M, or P for Eastern, Central, Mountain, or Pacific. If your report is prepared in Daylight Saving time, the letter D should be entered just after the letters E, C, M, or P, as E D, C D, M D, or P D. Enter the temperature at time of observation and precipitation beginnings and endings for the last day of the preceding month in the space provided just above the line for the first of the month.
3. The following order should be followed in making temperature observations:
(a) Read minimum thermometer and record the reading; (b) read maximum thermometer and record the reading; (c) set the maximum thermometer; (d) set the minimum thermometer.

4. MINIMUM TEMPERATURE.—The minimum thermometer is read while in the "set" position. The reading is taken from the upper or right-hand end of the small index. It should be read before the maximum thermometer, so that the index in the minimum will not be jarred or disturbed before the reading is made.

5. MAXIMUM TEMPERATURE.—To obtain the maximum temperature, slowly lower the maximum thermometer to a vertical position, with the bulb down. Then read the temperature shown by the top of the mercury column. The thermometer bulb should not be touched.

6. CURRENT TEMPERATURE AT TIME OF OBSERVATION.—The current temperature may be obtained at any time by reading the end of the alcohol column in the minimum thermometer without disturbing the instrument. This temperature may also be obtained from the maximum thermometer at observation time after it has been whirled, while it is still in a vertical position.

7. SETTING THE THERMOMETERS.—After both maximum and minimum temperatures have been obtained, the maximum thermometer is set by whirling it in a clockwise direction until the reading is the same as that shown by the end of the alcohol column in the minimum thermometer. It should then be returned to its nearly horizontal position, with the bulb end slightly elevated. The minimum thermometer is set by raising the bulb end sufficiently to allow the small index to slide to the end of the alcohol column and then lowering the thermometer to a nearly horizontal position. After setting, the temperatures shown by the respective thermometers should agree within one degree; a greater difference should be reported to the Section Center.

8. RECORDING THE TEMPERATURES.—Enter maximum temperature, minimum temperature, and temperature at time of observation in the proper column to the nearest whole degree. Enter on line for date of observation. If the temperature is below zero, place a minus sign in front of the reading.

9. PRECIPITATION, TIMES OF BEGINNING AND ENDING.—Beginnings and endings must always be entered on the calendar date(s) on which they actually occur. Show the hours during which precipitation fell by drawing a solid horizontal line through the hour columns for the period of actual observed occurrence. If the beginnings and endings were not observed, draw a waved line through the hours of probable occurrence. This is a vital part of the record and should be kept as complete and accurate as possible.

10. PRECIPITATION, 24-HOUR TOTAL ENDING AT OBSERVATION.—Record in the column headed "Rain, Melted Snow, etc." the total depth of rain or the water resulting from melted hail, sleet, or snow for the preceding 24 hours, regardless of whether it fell on the day of observation or after observation time on the preceding day. *The amount should always be entered on the date(s) of measurement.* Every entry of measurable precipitation should be recorded to two decimal places and the decimal point should be carefully entered in its proper place. If the amount is .05 (five hundredths) it should be entered as .05, if it is .50 (fifty hundredths) it should be entered as .50, and if it is one inch and sixty hundredths as 1.60. *When no precipitation falls during the 24-hour observational period, a "0" (zero) should be entered so there will be no doubt as to whether any precipitation fell.*

11. MEASURING LIQUID PRECIPITATION.—It is not necessary to remove the measuring tube to make a measurement. Insert a dry measuring stick into the measuring tube. Permit the stick to rest on the bottom of the tube for 2 or 3 seconds. Withdraw the stick and read the depth of precipitation at the upper limit of the wet portion of the stick. This amount should be entered on the date of measurement. The gage is so constructed that the depth of water in the measuring tube is mag-

- nified ten times by allowing it to collect in the smaller tube. The measuring stick supplied with the gage is graduated in such a manner that its smallest division represents .01 inch of actual precipitation. The measuring tube should be emptied and replaced in the large can after the measurement has been noted. If the measuring tube of the gage is full (this equals 2 inches of precipitation), carefully remove it from the overflow container and empty it. Pour the overflow into the measuring tube, measure it, and add the value to the 2 inches emptied from the tube. If, in removing the full measuring tube, some water is spilled into the overflow container, measure the amount remaining in the tube before measuring the amount of the overflow. The total precipitation is then the sum of the individual measurements. When measurement is completed, empty the measuring tube and reassemble the gage.

12. MEASURING FROZEN PRECIPITATION.—When frozen precipitation is likely to fall, remove the funnel and inner tube of the rain gage and leave only the large can exposed. Melt the catch of snow or ice by the following method. Pour a measured quantity of warm water into the overflow container of the gage to melt the collected snow or ice. Pour the entire contents into the measuring tube. Measure the water as outlined above. To obtain the water equivalent of the precipitation, subtract the amount of water used to melt the solid precipitation from the total measurement. This water equivalent should be entered in the "Rain, Melted Snow, etc." column. The receiver of the gage makes a very convenient funnel for this operation.

- If solid precipitation falls when the funnel and tube have not been removed and it is thought the gage has caught only a portion of the fall, it will provide a more accurate measurement to discard the questionable amount in the gage and then to proceed as follows: Select a place where the new fall is as little disturbed as possible, cut out a section by sinking the inverted overflow can through the frozen precipitation and cover the mouth by slipping a sheet of tin or thin board under it. Be careful to include only the precipitation that fell during the preceding 24 hours. This section should then be melted as indicated above and measured to obtain the water equivalent.

13. NEW SNOWFALL, SLEET, OR HAIL, 24-HOUR FALL.—Measure the depth of new snow, sleet, or hail which has fallen during the preceding 24 hours only. Separate falls which melt during the 24-hour period are to be added together. Enter the total amount in inches and tenths in the column headed "24-hr. amounts, Snow, Sleet, Hail." Where drifting occurs, measurements should be made at several points where drifting is least and the average of these should be entered. If frozen precipitation melts as it falls, enter the amount as "T" (trace) with a note "Melted as it fell." If the total unmelted fall measures less than half the distance from the end of the measuring stick to the first etched mark, the amount should be entered as "T" (trace). If there is an entry in this column there must be an entry for the same date in the "Rain, Melted Snow, etc." column to show the water equivalent.

14. TOTAL SNOW, SLEET, HAIL, ICE DEPTH ON GROUND AT OBSERVATION.—The average depth remaining on the ground at time of observation in the vicinity of the station should be entered to the nearest inch (no decimals or fractions to be used) in the column headed "At obsn. Snow, Sleet, Hail, Ice on ground." This measurement should be made by taking the average of the depths at three or more places least affected by drifting. This depth includes any new fall accumulated on top of older snow, sleet, ice, or hail. An entry should be made each day in this space as long as snow, sleet, or ice remains on the ground. For the day on which the covering melts completely, enter "0." Omit entries thereafter until the next accumulation. Enter "T" for less than one-half inch.

15. WEATHER.—Under "Weather" enter an "X" in the proper space for each type or types that occur during the calendar day midnight to midnight. A brief explanation of the six types carried in this block follows:

Sleet: Minute water droplets suspended in the air.

Fog: Transparent, hard pellets of ice. Temperature is usually below freezing when sleet occurs.

Glaze: (From freezing rain or freezing drizzle). Rain or drizzle that falls in liquid form but freezes to the exposed surfaces of the ground, or to unheated objects, forming a smooth coating of ice.

Thunder: Thunder heard at the station, whether or not rain fell.

Hail: Ice balls which usually fall during thunderstorms, when the temperature is considerably above freezing.

Damaging winds: Winds resulting in damage to vegetation, buildings, or other property.

16. In the next column, headed "Important weather conditions not included in 'Weather Block', additional information, such as times and intensity, may be given about any of the items checked in the weather block, or any other information about weather happenings.

17. Under "Remarks," write a brief report of any unusual weather conditions, such as prolonged dry or wet periods, severe storms, etc. Deaths and damage due to weather should be noted. Also record here the dates of "killing freeze" in the spring and fall. A "freeze" may or may not be accompanied by an actual deposit of frost. A "killing freeze" is a freezing condition capable of having widely destructive effects on staple vegetation, usually accompanied by temperatures observed in the instrument shelter below 32° F. Under arid or windy conditions, frost does not always form when a killing freeze occurs. Heavy frost is not always an indication of a killing freeze.

18. Enter station, month, year, and your name on the bottom of the form. Enter name of your post office, only if it is different from the name of your station.
19. Sums, averages, and extremes need not be entered by the observer.
20. Always forward promptly the original and one copy of your monthly report to the Section Center after the close of each month, unless instructed otherwise.

WB Form 612-2

Date	TEMPERATURE °F		Wind	Direction	Precipitation	Remarks
	Max.	Min.				
1	57	37	46			
2	47	31	44			
3	47	29	43			
4	38	31	44			
5	37	33	54			
6	54	29	45			
7	52	40	52			
8	52	32	32			
9	56	26	47			
10	62	31	61			
11	62	42	53			
12	55	31	45			
13	50	35	48			
14	61	41	57			
15	60	46	51			
16	52	36	49			
17	50	28	43			
18	63	38	57			
19	50	39	42			
20	60	37	57			
21	57	29	50			
22	50	22	43			
23	48	33	43			
24	48	41	45			
25	46	38	45			
26	46	37	42			
27	51	38	41			
28	55	40	47			
29	55	40	54			
30	60	39	59			
31						
Sum	1523	1026				
Avg	52.1	34.5				
Ex- treme						

Station BAR HARBOR, ME.
 County HANDS, ME.
 State MAINE
 Date of observation April 1, 1953
 Time of observation (local time) if not daily 4:00 PM
 Standard time in use Standard time in use

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
RECORD OF CLIMATOLOGICAL OBSERVATIONS
 RECORD OF CLIMATOLOGICAL OBSERVATIONS

Date	TEMPERATURE °F		Wind	Direction	Precipitation	Remarks
	Max.	Min.				
1	57	37	46			Clear
2	47	31	44			Partly cloudy
3	47	29	43			Partly cloudy
4	38	31	44			Clear
5	37	33	54			Clear
6	54	29	45			Overcast
7	52	40	52			Partly cloudy
8	52	32	32			Cloudy
9	56	26	47			Clear
10	62	31	61			Clear
11	62	42	53			Clear
12	55	31	45			Clear
13	50	35	48			Clear
14	61	41	57			Clear
15	60	46	51			Overcast
16	52	36	49			Overcast
17	50	28	43			Clear
18	63	38	57			Cloudy
19	50	39	42			Clear
20	60	37	57			Clear
21	57	29	50			Cloudy
22	50	22	43			Overcast
23	48	33	43			Cloudy
24	48	41	45			Cloudy
25	46	38	45			Cloudy
26	46	37	42			Cloudy
27	51	38	41			Overcast
28	55	40	47			Overcast
29	55	40	54			Cloudy
30	60	39	59			Clear
31						
Sum	1523	1026				
Avg	52.1	34.5				
Ex- treme						

REMARKS

not included in 'weather' block

important weather conditions not included in 'weather' block

Clear

RECORD OF CLIMATOLOGICAL OBSERVATIONS

Time of observation (local time) if once daily 4:00 PM

Standard time in use MAY 1955

TEMPERATURE °F		PRECIPITATION		WEATHER (CYCLOTYPE DAY)	
24 hrs. ending at observation	At obs.	Draw a straight line (—) through hours precipitation was observed, and a wavy line (~~~~) through hours precip. probably occurred unobserved.	24-hr. amounts	At obs.	At obs.
Max.	Min.		Rain, Melted Snow, Sleet, Hail, Ice, snow, etc. (ins. & hundredths (ins. & tenths))	Snow, Sleet, Hail, Ice (inches)	Wind direction & force (miles per hour)
1 69 41 56					Clear
2 65 35 60					Clear
3 73 50 69					Cloudy
4 72 53 70					Cloudy
5 71 42 43					Cloudy
6 44 39 43					Cloudy
7 56 42 58					Cloudy
8 57 41 44					Cloudy
9 55 41 52					Clear
10 62 40 58					Clear
11 69 40 68					Clear
12 69 39 66					Clear
13 68 39 54					Clear
14 66 41 63					Clear
15 63 41 63					Clear
16 70 49 67					Clear
17 62 41 56					Clear
18 62 54 65					Clear
19 66 49 67					Clear
20 66 49 67					Clear
21 66 37 56					Clear
22 72 80 75					Clear
23 75 54 68					Clear
24 72 51 61					Clear
25 78 58 72					Clear
26 72 58 68					Clear
27 68 42 62					Clear
28 63 42 57					Clear
29 73 54 73					Clear
30 74 52 57					Clear
31 54 48 56					Clear
Sum 2023 1443					
Avg 67.4 46.5					
Ex-Trans					

Date	TEMPERATURE °F		PRECIPITATION		WIND		WEATHER (SYNOPTIC DAY)		Remarks
	Max	Min	At obs.	At obs.	Dir	Sp	At obs.	At obs.	
1	84	50	84						
2	85	53	81						
3	82	61	80						
4	80	50	76						
5	79	58	78						
6	79	58	74						
7	75	58	74						
8	79	50	73						
9	74	50	71						
10	74	47	68						
11	73	58	67						
12									
13	69	60	68						
14	72	61	66						
15	77	58	76						
16	80	70	74						
17	75	59	61						
18	77	57	72						
19	77	61	68						
20	87	61	88						
21	87	62	85						
22	87	66	78						
23	79	61	65						
24	74	57	69						
25	73	48	65						
26	73	45	70						
27	75	58	68						
28	65	45	62						
29	64	54	61						
30	72	51	68						
31	70	53	67						
Sum	2305	1480							
Avg	76.8	56.0							
Ext									

Station NEWARK Date 10-10-19 Time of observation 10:00 A.M.

Name W. H. HUBBON

Title BAR HARBOR

State MAINE

Date	TEMPERATURE °F		PRECIPITATION		WIND		WEATHER (SYNOPTIC DAY)		Remarks
	Max	Min	At obs.	At obs.	Dir	Sp	At obs.	At obs.	
1	84	50	84						
2	85	53	81						
3	82	61	80						
4	80	50	76						
5	79	58	78						
6	79	58	74						
7	75	58	74						
8	79	50	73						
9	74	50	71						
10	74	47	68						
11	73	58	67						
12									
13	69	60	68						
14	72	61	66						
15	77	58	76						
16	80	70	74						
17	75	59	61						
18	77	57	72						
19	77	61	68						
20	87	61	88						
21	87	62	85						
22	87	66	78						
23	79	61	65						
24	74	57	69						
25	73	48	65						
26	73	45	70						
27	75	58	68						
28	65	45	62						
29	64	54	61						
30	72	51	68						
31	70	53	67						
Sum	2305	1480							
Avg	76.8	56.0							
Ext									

Handwritten notes and data on the left side of the page, including a large '0.00' and various other markings.

RECORD OF CLIMATOLOGICAL OBSERVATIONS
Time of observation (local time) if not daily
Standard time in use

TEMPERATURE °F		PRECIPITATION		WEATHER (CALENDAR DAY)		Important weather conditions not included in 'Weather' block.
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.		At obsn.	24-hr. amounts	
Date	Max. Min.	A.M.	P.M.	Rain, Melted Snow, Sleet, Hail, Ice on ground (inches)	Rain, Melted Snow, Sleet, Hail (ins. & tenths)	Mark 'X' for all types occurring each day
		1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11			Fog
1	74 61 68					Thunder
2	75 56 66					Glaze
3	70 54 69					Sleet
4	76 53 72					Steady rain
5	79 56 75					
6	70 53 67					
7	75 58 67					
8	68 47 61					
9	65 45 61					
10	68 46 55					
11	71 56 66					
12	66 56 60					
13	61 48 59					
14	61 35 58					
15	64 36 64					
16	65 33 64					
17	67 45 65					
18	74 56 74					
19	74 56 73					
20	73 51 64					
21	65 48 54					
22	58 42 58					
23	58 39 66					
24	57 39 53					
25	65 41 61					
26	62 42 58					
27	64 47 60					
28	60 44 60					
29	64 50 63					
30	63 40 56					
31						
Sum	2016 1489					
Avg	67.2					
Ex-tem	490					

STATION		DATE		TIME		PRECIPITATION	
NAME	NUMBER	MONTH	DAY	HOUR	MINUTE	AMOUNT	WIND DIRECTION
BAR HARBOR							
COUNTY							
STATE							
RECORD OF CLIMATOLOGICAL OBSERVATIONS		Time of observation (local time) if once daily		5: P.M.			
RECORD OF CLIMATOLOGICAL OBSERVATIONS		Time of observation (local time) if once daily		5: P.M.			

RECORD OF CLIMATOLOGICAL OBSERVATIONS

If at different times, temperature _____, precipitation _____

Standard time in use

[illegible]

Date	TEMPERATURE °F		Precipitation	Wind		Remarks
	Max	Min		Dir	Spd	
1	35	24	28			
2	38	16	38			
3	39	29	34			
4	37	24	28			
5	39	24	34			
6	36	17	23			
7	24	12	20			
8	27	13	25			
9	28	17	27			
10	28	15	24			
11	28	16	27			
12	28	16	26			
13	29	24	25			
14	31	19	29			
15	38	16	34			
16	36	22	25			
17	29	14	28			
18	35	26	28			
19	27	10	16			
20	16	-5	-1			
21	8	-10	8			
22	8	-5	7			
23	24	2	21			
24	27	10	27			
25						
26	18	9	16			
27	25	11	21			
28	24	11	24			
29	26	9	24			
30	35	11	24			
31	23	4	10			
Sum	846	411				
Avg	283	137				
Ex- treme						

BAR HARBOR
 on Hancock
 on Maine
 RECORD OF CLIMATOLOGICAL OBSERVATIONS
 Time of observation (local time) if once daily, 5:00 PM
 Standard time in use EST

Date	TEMPERATURE °F		Precipitation		Wind		Remarks
	Max	Min	At obsn.	At obsn.	Dir	Spd	
1	35	24	28				Clear
2	38	16	38				Cloudy
3	39	29	34				Cloudy
4	37	24	28				Snow
5	39	24	34				Cloudy
6	36	17	23				Clear
7	24	12	20				Clear
8	27	13	25				Clear
9	28	17	27				Clear
10	28	15	24				Cloudy
11	28	16	27				Clear
12	28	16	26				Clear
13	29	24	25				Clear
14	31	19	29				Clear
15	38	16	34				Clear
16	36	22	25				Clear
17	29	14	28				Clear
18	35	26	28				Clear
19	27	10	16				Clear
20	16	-5	-1				Clear
21	8	-10	8				Clear
22	8	-5	7				Clear
23	24	2	21				Clear
24	27	10	27				Clear
25							Clear
26	18	9	16				Clear
27	25	11	21				Clear
28	24	11	24				Clear
29	26	9	24				Clear
30	35	11	24				Clear
31	23	4	10				Clear
Sum	846	411					
Avg	283	137					
Ex- treme							