

17-0371

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

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 "Climatological 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 ED, CD, MD, or PD. 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 wavy 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-

FORM 612-14 (Formerly 1009) BAR HARBOR

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:

Sog: Minute water droplets suspended in the air.

Sleet: 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: Hail, 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 designated office after the close of each month, unless instructed otherwise.

RECORD OF CLIMATOLOGICAL OBSERVATIONS

Time of observation (local time) if once daily . . . b p

If at different times, temperature

If at different times, temperature _____, precipitation _____

PRECIPITATION

330 III. THE PROBLEM

16--59784-2

16-59784-2
WB Form 612-14

Date	TEMPERATURE °F												Wind direction and force	Wind gust	Barometer (corrected)	Moon phase	Remarks
	Max	Min	4 M	8 A	12 M	4 P	8 P	Midnight	1 A	5 A	9 A	1 P					
1	46	26	43														Clear
2	49	29	45														Clear
3	47	29	41														Cloudy
4	42	34	41														Clear
5	52	37	48														Clear
6	56	37	53														Clear
7	55	27	38														Clear
8	38	27	31														Cloudy
9	44	30	40														Partly cloudy
10	40	34	42														Cloudy
11	47	35	42														Cloudy
12	42	30	37														Clear
13	46	25	41														Clear
14	44	27	39														Clear
15	46	28	40														Clear
16	56	30	52														Clear
17	53	42	52														Clear
18	57	34	52														Clear
19	61	35	50														Partly cloudy
20	47	36	45														Partly cloudy
21	50	27	44														Clear
22	50	30	46														Clear
23	47	32	46														Clear
24	47	32	44														Clear
25	51	30	52														Clear
26	52	34	42														Clear
27	53	34	50														Partly cloudy
28	53	38	52														Partly cloudy
29	55	39	42														Cloudy
30	57	38	53														Clear
31																	
Sum	1485		966														
Avg	49.5		32.2														
Es- Timate																	

Station BAR HARBOR County Hancock State Maine

Month April Year 1956

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

Standard time in use Standard

Month March Year 1956

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

Standard time in use Standard

RECORD OF CLIMATOLOGICAL OBSERVATIONS

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

TEMPERATURE °F		PRECIPITATION												WEATHER (CALENDAR DAY)				REMARKS	
24 hrs. ending at observation		At obs.		24-hr. amounts		At obs.		24-hr. amounts		At obs.		Mark 'X' for all types occurring each day		Important weather conditions not included in 'Weather' block.					
Date	Max	Min	Rain	Melted snow, etc.	Rain	Melted snow, etc.	Rain	Melted snow, etc.	Rain	Melted snow, etc.	Rain	Melted snow, etc.	Fog		Sleet	Glaze	Thunder		Hail
1	46	26	43																Clear
2	49	29	45																Clear
3	47	29	41																Cloudy
4	42	34	41																Early
5	52	37	48																Clear
6	56	37	53																Clear
7	55	27	38																Clear
8	38	27	31																Cloudy
9	44	30	40																Partly cloudy
10	40	34	42																Cloudy
11	47	35	42																cloudy
12	42	30	37																Clear
13	46	25	41																Partly cloudy
14	44	27	39																Clear
15	46	28	40																Cloudy
16	56	30	52																Clear
17	53	42	52																Clear
18	57	34	52																Clear
19	61	35	50																Partly cloudy
20	47	36	45																Partly cloudy
21	50	27	44																Clear
22	50	30	46																Partly cloudy
23	47	32	46																Partly cloudy
24	47	32	44																Wet Snow
25	51	30	52																Partly cloudy
26	52	34	42																Clear
27	53	34	50																Cloudy
28	53	38	52																Partly cloudy
29	55	39	42																Cloudy
30	57	38	53																Clear
31																			Clear
Sum	1485		966																
Avg	49.5		32.2																
Es-																			

Date	TEMPERATURE												Wind	Wind direction	Wind speed	Wind gust	Barometer	Barometer reduction	Barometer reading	Barometer type	Barometer serial	Barometer date	Barometer remarks	Remarks
	1	2	3	4	5	6	7	8	9	10	11	12												
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
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27																								
28																								
29																								
30																								
31																								

Station BAR HARBOR County Alaska State Alaska

Time of observation (local time) if once daily 0600 Month June Year 1956

Standard time in use None

RECORD OF CLIMATOLOGICAL OBSERVATIONS

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

Time of observation (local time) if once daily 0600 Month June Year 1956

Standard time in use None

Date	TEMPERATURE												Wind	Wind direction	Wind speed	Wind gust	Barometer	Barometer reduction	Barometer reading	Barometer type	Barometer serial	Barometer date	Barometer remarks	Remarks
	1	2	3	4	5	6	7	8	9	10	11	12												
1	67	46	53																					
2	65	46	56																					
3	59	48	52																					
4	60	47	54																					
5	70	48	69																					
6	70	54	69																					
7	74	59	72																					
8	71	48	69																					
9	49	41	44																					
10	57	44	50																					
11	53	47	51																					
12	76	42	74																					
13	84	60	83																					
14	76	53	67																					
15	86	50	81																					
16	86	60	84																					
17	81	51	75																					
18	68	46	62																					
19	67	42	65																					
20	67	53	62																					
21	63	53	62																					
22	66	51	61																					
23	75	52	73																					
24	73	51	73																					
25	64	48	60																					
26	76	53	72																					
27	72	49	57																					
28	75	60	75																					
29	75	55	69																					
30	76	57	71																					
31																								
Sum	2684	1504																						
Avg	68.5	50.1																						
Ext																								
Time																								

Observer W. J. ... Post Office ...

Station ... Month ... Year ...

WB Form 612-14

Date	TEMPERATURE °F		PRECIPITATION		WEATHER (CALENDAR DAY)		not included in weather block
	Max	Min	At obsn	At obsn	at 5 A.M.	at 11 A.M.	
1	75	65	65				
2	78	60	69				
3	73	56	71				
4	70	57	76				
5	73	45	68				
6	75	53	74				
7	74	56	71				
8	71	53	65				
9	74	58	70				
10	71	56	73				
11	75	57	77				
12	71	53	77				
13	71	57	73				
14	73	56	67				
15	71	57	75				
16	71	57	75				
17	70	52	73				
18	73	53	81				
19	71	65	67				
20	70	61	66				
21	71	52	65				
22	71	52	65				
23	71	54	64				
24	71	54	64				
25	71	54	64				
26	71	54	64				
27	71	54	64				
28	71	54	64				
29	71	54	64				
30	71	54	64				
31	71	54	64				
Sum	2269	1635					
Avg	73.2	52.7					
Ext							

Station BAR HARBOR County ALBERTA State ALBERTA

Time of observation (local time) if once daily August 1956

If at different times, temperature precipitation

RECORD OF CLIMATOLOGICAL OBSERVATIONS

U.S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

Date	TEMPERATURE °F		PRECIPITATION		WEATHER (CALENDAR DAY)		not included in weather block
	Max	Min	At obsn	At obsn	at 5 A.M.	at 11 A.M.	
1	75	65	65				
2	78	60	69				
3	73	56	71				
4	70	57	76				
5	73	45	68				
6	75	53	74				
7	74	56	71				
8	71	53	65				
9	74	58	70				
10	71	56	73				
11	75	57	77				
12	71	53	77				
13	71	57	73				
14	73	56	67				
15	71	57	75				
16	71	57	75				
17	70	52	73				
18	73	53	81				
19	71	65	67				
20	70	61	66				
21	71	52	65				
22	71	52	65				
23	71	54	64				
24	71	54	64				
25	71	54	64				
26	71	54	64				
27	71	54	64				
28	71	54	64				
29	71	54	64				
30	71	54	64				
31	71	54	64				
Sum	2269	1635					
Avg	73.2	52.7					
Ext							

Observer Post Office

Station Bar Harbor Month August 19 56

WB Form 612-14

Blank grid for weather observations with columns for date, time, temperature, precipitation, and remarks.

RECORD OF CLIMATOLOGICAL OBSERVATIONS
Station: BAR HARBOR
County: Walcott
State: Maine
Date: September 1919

RECORD OF CLIMATOLOGICAL OBSERVATIONS
Station: BAR HARBOR
County: Walcott
State: Maine
Date: September 1919
Detailed table with columns for temperature (Max, Min, observation), precipitation (24-hr amounts, 24-hr amounts), and remarks.

Date	TEMPERATURE °F		WIND		PRECIPITATION		MOON		WEATHER (CALENDAR DAY)		Remarks
	Max	Min	Dir	Spd	Amount	Time	Phase	Age	Time	Time	
1	50	47	52								
2	62	49	55								
3	62	51	60								
4	61	48	59								
5	57	45	54								
6	55	33	49								
7	61	43	59								
8	61	48	55								
9	63	53	56								
10	58	37	47								
11	70	34	38								
12	49	25	47								
13	56	41	53								
14	58	44	57								
15	63	46	62								
16	65	41	64								
17	72	42	64								
18	64	43	55								
19	56	35	49								
20	55	30	50								
21	62	43	57								
22	59	39	53								
23	60	51	58								
24	60	51	52								
25	54	30	43								
26	45	26	43								
27	54	29	50								
28	56	44	49								
29	53	28	45								
30	63	40	57								
31	72	38	64								
Sum	1521	1248									
Avg	58.7	40.3									
Ext											
Items											

STATION BAR HARBOR
COUNTY HANCOCK
STATE MAINE
RECORD OF CLIMATOLOGICAL OBSERVATIONS
Time of observation (local time) if once daily 4:30 P.
Standard time in use E.D.S.T.
October 1952

Date	TEMPERATURE °F		WIND		PRECIPITATION		MOON		WEATHER (CALENDAR DAY)		Remarks
	Max	Min	Dir	Spd	Amount	Time	Phase	Age	Time	Time	
1	50	47	52								
2	62	49	55								
3	62	51	60								
4	61	48	59								
5	57	45	54								
6	55	33	49								
7	61	43	59								
8	61	48	55								
9	63	53	56								
10	58	37	47								
11	70	34	38								
12	49	25	47								
13	56	41	53								
14	58	44	57								
15	63	46	62								
16	65	41	64								
17	72	42	64								
18	64	43	55								
19	56	35	49								
20	55	30	50								
21	62	43	57								
22	59	39	53								
23	60	51	58								
24	60	51	52								
25	54	30	43								
26	45	26	43								
27	54	29	50								
28	56	44	49								
29	53	28	45								
30	63	40	57								
31	72	38	64								
Sum	1521	1248									
Avg	58.7	40.3									
Ext											
Items											

Table with 24 columns for hourly temperature and precipitation data. Includes handwritten entries for temperature (e.g., 64, 58, 42, 46) and precipitation (e.g., .87, .37, .04, .71, .07, .91, .26, .22). Includes a 'REMARKS' column with handwritten notes like 'Rain', 'Clear', 'Overcast to Clear', 'haze', 'Cloudy', 'Partly Cloudy', 'Showers', 'Pt. Cloudy', 'Overcast', 'Clear', 'Partly Cloudy', 'Rain', 'Overcast', 'Clear', 'Overcast', 'Cloudy'.

RECORD OF CLIMATOLOGICAL OBSERVATIONS
Time of observation (local time) if once daily, 5:00 P.M.
November 10, 1937
EST
Station: BURLINGTON
County: Hancock
State: Maine

Table with 24 columns for hourly temperature and precipitation data. Includes handwritten entries for temperature (e.g., 64, 58, 42, 46) and precipitation (e.g., .87, .37, .04, .71, .07, .91, .26, .22). Includes a 'REMARKS' column with handwritten notes like 'Rain', 'Clear', 'Overcast to Clear', 'haze', 'Cloudy', 'Partly Cloudy', 'Showers', 'Pt. Cloudy', 'Overcast', 'Clear', 'Partly Cloudy', 'Rain', 'Overcast', 'Clear', 'Overcast', 'Cloudy'.

Blank record form for climatological observations, including sections for Date, Time, and various weather-related data fields.

Station Wichita County Wichita State Kansas
Time of observation (local time) if once daily 6.57
Standard time in use E.S.T.

Date	TEMPERATURE °F		PRECIPITATION												WEATHER (CALENDAR DAY)		Important weather conditions not included in 'Weather' block	REMARKS																
	24 hrs. ending at observation		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																			
	Max.	Min.	1	2	3	4	5	6	7	8	9	10	11	12	1	2			3	4	5	6	7	8	9	10	11	12	Fog	Sleet	Glaze	Thunder	Hail	Damag- ing wind
1	34	11	28																														Clear	
2	35	22	34																														Clear	
3	25	15	25																														Snow	
4	48	21	26																														Clear	
5	28	11	28																														Overcast	
6	48	20	45																														Rain	
7	53	36	47																														Rain	
8	47	33	37																														Partly cloudy	
9	37	24	25																														Snow	
10	27	20	27																														Clear	
11	47	17	47																														Partly cloudy	
12	54	38	51																														Snow	
13	48	30	34																														Clear	
14	34	22	34																														Partly cloudy	
15	45	21	45																														Clear	
16	46	42	44																														Clear	
17	43	33	39																														Clear	
18	42	23	23																														Clear	
19	34	7	34																														Clear	
20	42	31	37																														Clear	
21	45	25	43																														Clear	
22	43	22	24																														Clear	
23	35	20	34																														Snow	
24		11	19																															
25																																		
26	29	11	19																														Clear	
27	27	11	27																														Partly cloudy	
28	40	27	36																														Partly cloudy	
29	44	24	40																														Snow - Rain	
30	45	9	9																														Rain	
31	42	27	40																														Snow - Clear	
Sum	1159	627																																
Avg	40.0	20.9																																
Ex-tem																										</								