Form No. 1009—Met'l.

U. S. Department of Agriculture, Weather Bureau.

VOLUNTARY OBSERVERS' METEOROLOGICAL RECORD:

Month of February, 1904. Station, Frederick; County, Frederick

State, Maryland; Latitude, ; Longitude, ; Time used on this form

Ap Psychrometer Form Co Works taken end of Comm

DATE.	TEMPERATURE. Maximum.	Minimum.	*Mean.	‡Set Max.	PRECIPITATION. Time of Beginning.	Time of Ending.	†Amount.	Snowfall in Inches.	Depth of Snow on Ground at Time of Observation.	Prevailing Wind Direction.	Character of Day.	‡Miscellaneous Phenomena.
1	35	18		19					8.0	W	pt cldy	
2	33	-5		33					7.0	I	clear	
3	41	11		24					6.0	I	clear	
4	31	9		25					5.5	I	"	
5	33	6		38					5.0	n w	cloudy	
6	52	27		49					2.0	n w	pt cldy	
7	56	30		55			.01		trace	I	" "	
8	58	29		31						n w	Clear	
9	32	16		28						n	"	
10	28	12		23						n	cloudy	
11	38	16		33						n e	clear	
12	34	14		23			.02		trace	n e	pt cldy	
13	31	6		28					"	I e	" "	
14	28	21		28			.03	0.5	.5	I	cloudy	
15	39	24		29					trace	W	clear	
16	34	5		15						W	"	
17	26	2		25						n w	"	
18	26	8		21			.02		trace	n w	cloudy	
19	31	20		31			.15	0.5	.5	I	"	
20	36	8		34						n e	clear	
21	36	15		31			.59			n	cloudy	
22	46	30		41			.21			W	pt cldy	
23	52	26		49						I	clear	
24	57	34		40						W	"	
25	41	18		26						W	"	
26	27	14		24			.01		trace	I e	cloudy	
27	33	19		33						n	"	
28	37	30		37			.07			I	"	
29	38	34		36			.21			n e	"	
30												
31												
Sum	1086	497		904			1.32	1.1	345			
Mean	37.4	17.1	27.50						5			

* May be left blank.
† Including rain, hail, sleet, and melted snow.
‡ Thunderstorms, halos, auroras, etc.
‖ Reading of maximum thermometer immediately after setting.

(IN TRIPLICATE.) 8—253

McClintock Young, Voluntary Observer.

Post-Office Address, Frederick Md.

MONTHLY SUMMARY.

TEMPERATURE.

Mean maximum, 37.4

Mean minimum, 17.1

Mean, 27.2

Maximum, 58; date, 8

Minimum, -5; date, 2

Greatest daily range, 38

PRECIPITATION.

Total, 1.32 inches.

Greatest in 24 hours, .59; date, 21

SNOW.

Total fall, 1.0 inches, on ground 15th, T inches; at end of month, — inches.

NUMBER OF DAYS.

With .01 inch or more precipitation, 10

Clear, 13; partly cloudy, 6; cloudy, 10

DATES OF—

Killing frost,

Thunderstorms,

Hail,

Sleet,

Auroras,

REMARKS.

Record Taken at 5 p m

Precipitation measured at 12 p m

MAR 9 - 1904

Form No. 1009—Met'y.

U. S. Department of Agriculture, Weather Bureau.

VOLUNTARY OBSERVERS' METEOROLOGICAL RECORD.

Prince Fredericktown

Month of February, 1904; Station, Prince Fredericktown; County, Calvert

Md State, Maryland; Latitude, 38° 34' N; Longitude, 76° 35' W; Time used on this form E Standard Sunset

DATE.	TEMPERATURE. Maximum.	Minimum.	*Mean.	‡Set Max.	PRECIPITATION. Time of Beginning.	Time of Ending.	†Amount.	Snowfall in Inches.	Depth of Snow on Ground at Time of Observation.	Prevailing Wind Direction.	Character of Day.	‡Miscellaneous Phenomena.
1	33.	20.	27.	21.	7.50A	9.50A	m.s.04	T	5.	N.W.	Pt. Cldy.	Fog 7.30A to 7.50A
2	35.	2.	18.	35.					4.	S.E.	Clear	
3	39.	16.	28.	22.					3.5	W.	Clear	
4	27.	16.	21.	24.					3.	W.	Clear	
5	43.	16.	30.	36.					3.	S.	Pt. Cldy.	
6	56.	35.	45.	51.	1P.	1P.	a.T		T	S.W.	Pt. Cldy.	
7	62.	48.	55.	57.	11.25A 2.15P	11.30A 3P	a.01		0	S.W.	Cloudy	
8	58.	31.	50.	31.					0	N.W.	Clear	
9	31.	16.	23.	24.					0	N.E.	Pt. Cldy.	
10	25.	66.	21.	22.	9.30P				0	N.E.	Cloudy	
11	29.	18.	23.	27.		Early morn	m.s.T	1.	T	N.E.	Clear	
12	28.	15.	22.	24.			T	T	T	N.	Cloudy	Heavy White Frost
13	27.	11.	19.	22.			T	T	T in morn	N.	Clear	
14	35.	19.	27.	33.	12.35P		a.01	T	T	S.W.	Cloudy	Thin ice up
15	40.	23.	31.	30.		Early morn	m.s.11	.25	T	W.	Pt. Cldy.	
16	30.	7.	19.	15.					0	N.W.	Clear	
17	22.	4.	13.	21.					0	W.	Clear	
18	28.	9.	18.	24.	7P		T	T	0	S.E.	Cloudy	Heavy White Frost
19	32.	23.	28.	28.		7P	m.s.74	.74	.75	S.W.	Cloudy	Fog 1P. Thin coat with ice
20	28.	13.	20.	24.					.50	N.W.	Clear	Thin coat with sleet or ice
21	40.	15.	28.	36.	2.40P		a.08		T	S.E.	Cldy.	
22	48.	35.	41.	40.		12M.	a.1.13		0	W.	Pt. Cldy.	
23	52.	24.	38.	48.					0	S.W.	Pt. Cldy.	Heavy White Frost
24	56.	35.	46.	41.					0	N.W.	Pt. Cldy.	
25	42.	21.	31.	23.					0	N.W.	Clear	Dusty windy day
26	28.	16.	22.	20.	9.40A	9.40A	m.s.06	.25	.25	N.E.	Cloudy	
27	33.	19.	26.	28.			m.s.02		T	E.	Pt. Cldy.	
28	42.	23.	33.	40.	8.30A		a.02		0	S.W.	Cloudy	
29	39.	34.	36.	36.			a.01		0	N.E.	Cloudy	Dense Fog early morn to 12P. to midnight
30												
31												
Sum	1,088.	580.	839.	883.			2.22	2.24		SW & NW		
Mean	37.5	20.0	29	30.			.08	.08				

* May be left blank.
† Including rain, hail, sleet, and melted snow.
‡ Thunderstorms, halos, auroras, etc.
§ Reading of maximum thermometer immediately after setting.

(IN TRIPLICATE.) 8—253

Alfred Pressons, Voluntary Observer.

Post-Office Address, Prince Fredericktown, Md.

MONTHLY SUMMARY.

TEMPERATURE.

Mean maximum, 37.5

Mean minimum, 20.0

Mean, 28.8 29.

Maximum, 62. ; date, 7

Minimum, 2. ; date, 2

Greatest daily range, 33.

PRECIPITATION.

Total, 2.22 inches.

Greatest in 24 hours, 1.13 ; date, 22

SNOW.

Total fall, 2.24 inches; on ground 15th, T

inches; at end of month, 0 inches.

NUMBER OF DAYS.

With .01 inch or more precipitation, 10

Clear, 10. ; partly cloudy, 9 ; cloudy, 10

DATES OF—

Killing frost,

Thunderstorms,

Hail, 26 Probably Sleet

Sleet, 15, 19, 26

Auroras,

MAR 9 BCCA

REMARKS.

76 geese with the coming up 29th

Much slippery and muddy walking in month. Heavy wind 1, 2, 3, 25

Instruments

Elevation above sea 80 feet; above ground 5 feet. North end of house

Observations made at Sunset

VOLUNTARY OBSERVERS' METEOROLOGICAL RECORD:

Month of February, 189 ; Station, Annapolis ; County, A. A.

State, Md. ; Latitude, ; Longitude, ; Time used on this form, Local

DATE.	TEMPERATURE. Maximum.	Minimum.	Range.	*Mean.	PRECIPITATION. Time of Beginning.	Time of Ending.	†Amount.	Snow fall, in Inches.	Depth of Snow on Ground at Time of Observation.	Prevailing Wind Direction.	Character of Day.	21904 ‡Miscellaneous Phenomena.
1	33	27								N.E.	Cldy	
2	32	2								S.E.	Clear	
3	40	14								N.W.	"	
4	29	13								N.W.	"	
5	34	19								N.W.	Cldy	
6	56	30								S.W.	Pt. "	
7	60	35								N.W.	Clear	
8	64	33								N.E.	"	
9	39	19								N.W.	Pt. Cldy	
10	28	16								N.W.	Clear	ANNAPOLIS
11	31	30								N.W.	Fair	MD
12	26	22								N.E.	Clear	NO. OF DAYS–
13	38	35					.20	2"		N.E.	Snow	
14	38	26								N.W.	Clear	
15	39	407								N.E.	"	
16	17	4								N.E.	"	
17	25	9								E.	Cldy	
18	25	10					.60	7.60		N.E.	Rain, Snow	
19	30	21								N.W.	Clear	
20	32	14								N.E.	Cldy	
21	35	28					1.00	1.00		N.W.	Rain	
22	47	29								W.	Clear	
23	51	27								S.W.	Clear	
24	56	33								West	Clear	
25	57	21								N.W.	Clear	
26	30	27					.20	2 in		N.E.	Cldy	
27	26	19								N.E.	Cldy	
28	30	26					.20	.20		N.E.	Rain	
29	45	26								N.E.	Cldy	
30												
31		627										
Sum.	1093	630 216					2.20	—		N.E.		
Mean	37.7	21.7										

*May be left blank.
†Including rain, hail, sleet, and melted snow.
‡Thunderstorms, halos, auroras, etc.

N. M. Abbott, Voluntary Observer.

(IN TRIPLICATE.) 8—253

Post-Office Address, Annapolis, Md.

TEMPERATURE.

Mean maximum, 37.7

Mean minimum, 21.6 21.7

Mean, 29.6 29.7

Maximum, 64 60 ; date, 7th 8th

Minimum, 2 ; date, 2nd

L. D. R. — 36

L. D. R. — 1

PRECIPITATION.

Total, 2.20 inches.

Greatest in 24 hours, 1.00 ; date, 21st

Total snow fall, — inches; on ground 15th, — inches.

With .01 inch or more precipitation, 5

Clear, 15 ; partly cloudy, 2 ; cloudy, 12

DATES OF–

Killing frost,

Thunderstorms,

Hail,

Sleet,

Auroras,

REMARKS.

MAR 2 Rec'd

Form No. 1001—Met'l.

U. S. DEPARTMENT OF AGRICULTURE,

WEATHER BUREAU.

IMC EMP. #0488

DATE CHANGED

A.T.
H.W.L.

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at WASHINGTON, D.C., *for the month of* February, 1904.

Station is supplied with barograph, thermograph, sunshine recorder, and self-recording rain gauge.*

If the office has been moved during the month, give date _____; amount of change in height of barometer _____ feet (higher or lower).

No. of extra barometer, 470A; sum of corrections, -.020; date and observation upon which use of station barometer commenced, June 15-1889 8 pm; sum of corrections used, -.021; station elevation, 112 feet; actual elevation, — feet.

Location of office: Number 2416 M street, NW room # 23; first observation taken in present office, 8p m., March 22-1889, 190

* Cancel words that are not appropriate.

GENERAL INSTRUCTIONS.

1. This form will be kept clean, and all entries therein made in a neat, legible hand. The leaves should be separated for convenience in entering the data, but the margins must not be trimmed.
2. All observations entered on Form No. 1083—Met'l will be immediately copied in the proper spaces herein. The observation must be enciphered from this form.
3. In order that the reports may be filed at the telegraph office not later than 8 o'clock, observations will be taken not to exceed twenty minutes before 8 a. m. and 8 p. m. If a decided change in the weather conditions occurs between the taking and filing of an observation, the telegraphic report should not be corrected to show the new conditions, but a few words will be added to the cipher report to briefly explain the changed conditions, viz: "Heavy rain began seven fifty," or "Rain ended seven fifty-five." (See paragraph 31.)
4. Instruments will be read and conditions noted in the following order: (1) Clouds, (2) state of weather, (3) maximum and minimum thermometers, (4) dry and wet thermometers (and thermograph noted), (5) anemoscope, (6) rain gage (or snow gage), (7) self-register to anemometer, (8) attached thermometer to barometer, (9) barometer (and barograph noted).
5. *All entries in this form must be made in black record ink.* Red ink will not be used except in underscoring, and for probable readings, when an observation is taken late (paragraph III, special instructions). If an error has been made in an original reading, an ink line will be drawn through the erroneous entry and the correct entry placed immediately above the canceled reading in *black* ink.
6. Entries of direction of wind and clouds will be *printed*, thus: N., NE., E., etc.
7. When crowded for room the International Symbols published in Circular No. 16, October 18, 1883, will be used, or notes put upon the margin.
8. Instructions relative to taking special observations are given in the Weather Code.
9. The meteorological observations taken the previous day will be verified each day by the observer who is responsible for the accuracy of this form.

PRESSURE.

10. Corrections for instrumental error, gravity, temperature, and removal, preceded by the proper algebraic signs, will be applied to the observed barometric readings. The correction for temperature will be obtained from the barometer correction cards as follows: Find at the top of the card the observed height of the barometer, and in the column headed "Attached thermometer" the reading of the attached thermometer; the number at the intersection of these lines will be the correction to be applied. If the reading of the thermometer is less than 29°, the correction will be added, and if 29° or more above zero, it will be subtracted. For barometer or attached thermometer readings not given in the table the temperature correction will be determined by interpolation. The sum of corrections for instrumental error, gravity, and removal *will be applied to the correction for temperature* before recording the latter. Example: Observed barometer reading, 29.512; attached thermometer, 62.0; sum of corrections, +.008. The correction card gives a correction of —.089, to which add the sum of corrections +.008=—.081 to be used and recorded in column headed "Total correction."
11. If the elevation of the barometer is changed and the elevation increased, +.001 inch will be added to the sum of corrections for each foot of increase; if the elevation be decreased, —.001 will be *added* for each foot of decrease. These corrections will be applied pending the receipt of new correction cards.
12. The reduced barometer will be taken directly from the special table supplied to each station, and will be entered to hundredths only. The temperature argument, at stations making two observations daily, will be the mean of the current 8 o'clock temperature and that of the preceding 8 o'clock observation; at stations making but one observation daily, it will be the mean of the maximum and minimum temperatures as read at the time of observation. The pressure argument will be the station pressure to hundredths of an inch only (the third decimal being disposed of according to rule). Enter the table with the arguments as above described and find the point where the argument lines intersect; the value there given will be the reduced pressure. It will be necessary to interpolate for the hundredths when the station pressure falls between the tenths of an inch as given at the top of the table. No interpolation will be required for the smaller differences of temperature. If the temperature argument does not appear in the table use the one nearest to it.

TEMPERATURE.

13. All thermometers must be read and the readings recorded to the nearest tenth of a degree, except the attached thermometer, which will be read and recorded to the nearest half degree.
14. Instrumental corrections will not be applied to thermometer readings except when they are ±0.3° or more in the case of mercurial thermometers and ±0.5° or more in the case of minimum or alcohol thermometers. The corrections furnished are for each 10°, and will be applied algebraically to the scale readings of the thermometers before recording the same. For a scale reading between those for which corrections are given an interpolated value of the correction will be used. Example: For a reading of 62.0° the correction is — 0.5°. The true temperature is, therefore, 62.0°—0.5°=61.5°. For a reading of — 8.0° the correction is —1.2°, the true temperature would be — 8.0°— 1.2°=— 9.2°. For a reading of — 28.0° the correction is +7.8°, the true temperature would be —28.0+7.8°=—20.2°. The corrections of thermometers are given on the cards only as low as actual comparisons have been made with substandards. If it should happen that a reading of a thermometer is obtained at a point lower than any for which its corrections are given, then the corrections will be determined by continuing the same ratio of increase or decrease as between the last 30° for which the corrections are given. Example: The correction at + 2° is —0.6°, and at — 28.0° is — 2°. The change of correction between + 2° and — 28° is —1.4°. For 7° it is about —0.3°. For a scale reading —35.0°, which is 7° below — 28.0°, the correction is — 2.3° and the true temperature is — 35.0° — 2.3° = —37.3°. When the signs of the temperature and correction are the same, add; when different, subtract.
15. The maximum and minimum thermometers will be set both at 8 a. m. and 8 p. m.
16. Observers should always note whether there is agreement in the temperature values given by the several thermometers; that is to say, (1) the top of the alcohol column of the minimum should indicate the same or nearly the same temperature as shown by the dry thermometer; (2) the minimum thermometer reading should be as low or lower than the dry thermometer at the current and the preceding observations; (3) the maximum thermometer reading should be as high or higher than the dry thermometer at the current and the preceding observations. Readings contrary to the above rules, if the instruments are properly set and read, are abnormal, and steps will be taken at once to discover and remove the cause, or replace the instrument if defective. Small differences, however, amounting in some cases to nearly or quite a degree, will occasionally be found to occur. On such occasions the exact readings must be recorded, with an explanatory note.
17. If the wet thermometer at any time is found to read higher than the dry, notwithstanding all precautions, examine the latter, and see that the bulb is perfectly clean and dry; then observe whether the muslin cover of the wet bulb is clean and properly moistened on all sides; if out of order, a new cover should be put on and properly moistened. If the wet thermometer still reads higher, place an extra wet thermometer beside it, make comparative readings, and forward them to the Central Office without delay. During foggy weather it may sometimes happen that the wet thermometer will read higher than the dry. In all cases record the exact reading of the instrument, but if it reads higher than the dry, record the latter as the temperature of the dew-point, and the relative humidity as 100, with an explanatory note on the margin.
18. The dew-point, relative humidity, and vapor-pressure will be obtained in accordance with the tables furnished; the dew-point will always be entered to the nearest whole degree, the relative humidity to the nearest whole per cent, and the vapor-pressure to nearest thousandth of an inch.

WIND.

19. The current velocity, and maximum velocity since last observation, will be obtained in accordance with Circular D, Instrument Room, 1893. When the anemometer cups are not moving at the time of observation the wind will be recorded as calm, whether or not 1 or more miles have been recorded during the last hour; if the cups are moving, a velocity of 1 mile or more will be recorded. At stations where only one observation is taken daily, the maximum velocity and direction will be entered at 8 a. m. and 8 p. m., the same as if both observations were taken.
20. The maximum velocity must always be equal to or greater than the current velocity, and will have but one direction recorded therewith.
21. The *extreme velocity each day* (from midnight to midnight) will be ascertained with reference to *the mile* of wind recorded in the shortest time, thus: Find the two marks *nearest each other* on the anemometer sheet, calculate accurately the amount of time *between* these two marks (from beginning to beginning or from ending to ending), divide 60 by this amount, and the quotient will be the *extreme velocity*. Example: The space of time between two marks nearest each other is two minutes; 60÷2=30, therefore 30 miles is the extreme velocity for the day.
22. When the extreme velocity is 12 miles per hour, or less, the maximum velocity for the same period of time should be the same; if more than 12 miles, the maximum velocity can be less.
Read Circular D, Instrument Room, 1893.

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at WASHINGTON, D.C., for the Month of FEBRUARY, 1904.

Number of Station barometer 464; sum of corrections, -.021 inch.

8 A. M., 75TH MERIDIAN TIME; 7.52 A. M. LOCAL TIME.

Date. 1904.	Barometer. Attached thermometer.	Barometer. Observed reading.	Barometer. Total correction.	Barometer. Station. Observed reading plus total cor. (b)	Barometer. Reduced to sea-level. (b)	Thermometers. Dry. (b)	Thermometers. Wet. (b)	Dew-point. (b)	Relative humidity. (b)	Vapor-pressure. (b)	Self-reg. ther's. Max. (b)	Self-reg. ther's. Min. (b)	Wind. Dir.	Wind. Velocity. (b) †	Wind. Max. during preceding 12 hours. (b)	Wind. Dir.	Precipitation. Amt. at 8 a. m. (b) ††	Clouds. Amt.	Clouds. Kind.	Clouds. Dir. from.	State of Weather.	Clouds last observed within one hour previous to observation.	Initials of observer	Date. 1904.
		In.		In.	In.	°	°	°	%	In.	°	°		Mi.	Mi.		In.							
1	69.5	29.625	.131	29.494	29.62	28.4	27.5	25	89	.130	30.0	27.8	NW	12	13	NW	T	10	S	W	Cloudy		Gwsh.	1
2	69.0	30.248	.131	30.117	30.25	9.0	8.0	4	77	.047	16.4	2.2	S	5	12	NW	0	1	Ci S	SW	Clear		Gwsh	2
3	69.0	30.346	.132	30.214	30.34	16.5	13.0	-2	40	.034	40.0	16.5	W	6	32	NW	0	0	0	0	Clear		Gwsh	3
4	69.0	30.454	.132	30.322	30.45	16.0	13.0	1	48	.040	26.0	15.5	N	8	18	NW	0	0	0	0	Clear		Gwsh	4
5	69.0	30.240	.131	30.109	30.24	19.0	17.0	11	69	.066	22.0	11.7	W	3	3	W	0	2	AS	W	Clear		Gwsh	5
6	72.0	30.032	.139	29.893	30.02	43.0	37.1	28	56	.150	43.8	34.4	S	5	12	S	0	2	A Cu	W	Pt. Cloudy		Gwsh	6
7	73.5	29.770	.142	29.628	29.75	48.0	47.3	47	95	.322	50.3	46.4	S	4	6	S	0	10	AS	SW	Cloudy		Gwsh.	7
8	73.0	30.136	.142	29.988	30.11	33.8	29.3	22	57	.113	59.0	33.8	NW	18	27	NW	0	1	S Cu	NW	Clear		Gwsh	8
9	71.0	30.507	.138	30.369	30.50	18.0	16.5	12	76	.070	28.3	17.5	NW	5	15	NW	0	3	Ci Cu	W	Pt Cloudy		Gwsh	9
10	69.0	30.573	.132	30.441	30.57	16.0	13.0	1	48	.040	24.7	16.0	N	9	15	N	0	5	S Cu	NW	Cloudy		Gwsh	10
11	68.0	30.467	.130	30.337	30.47	20.0	16.5	5	48	.049	24.0	19.8	NW	7	12	N	T	Few	S	NW	Clear		Gwsh	11
12	69.0	30.354	.132	30.222	30.33	21.0	18.0	9	56	.060	28.5	15.8	NE	8	8	NE	0	3	Ci S	SW	Cloudy		Gwsh.	12
13	67.0	30.517	.127	30.390	30.52	11.7	10.1	4	67	.047	23.0	11.7	NW	7	15	NW	0	0	0	0	Clear		Gwsh.	13
14	69.0	30.230	.131	30.099	30.23	26.8	23.3	16	58	.085	28.3	24.8	SE	9	10	SE	0	10	S	SW	Cloudy		Gwsh	14
15	70.0	29.938	.131	29.807	29.94	27.0	24.0	18	64	.093	32.6	27.0	NW	4	19	NW	.10	0	0	0	Clear		Gwsh.	15
16	66.0	30.180	.123	30.057	30.19	7.8	5.6	-6	48	.028	27.0	7.4	NW	12	20	NW	0	0	0	0	Clear		Gwsh	16
17	60.0	30.397	.108	30.289	30.42	5.0	3.6	-4	63	.031	11.8	5.0	NW	12	24	NW	0	0	0	0	Clear		Gwsh.	17
18	64.0	30.520	.119	30.401	30.53	13.5	11.0	1	52	.040	20.2	12.7	NW	4	12	NW	0	Few	Cu S	W	Clear		Gwsh.	18
19	70.0	30.218	.134	30.084	30.21	28.0	27.0	25	88	.136	28.0	23.7	SE	6	9	S	.17	10	N	SW	Lt Rain		Gwsh.	19
20	67.0	30.602	.127	30.475	30.61	14.8	13.6	10	78	.063	29.0	14.0	NW	4	20	NW	0	0	0	0	Clear		Gwsh.	20
21	69.0	30.606	.132	30.468	30.60	20.0	19.3	17	88	.089	24.8	17.0	NW	4	5	N	0.08	10	S	S	Cloudy		Gwsh.	21
22	70.0	29.776	.132	29.644	29.76	36.5	36.1	35	96	.203	41.2	34.4	W	5	8	NW	.68	10	N	W	Lt Rain		Gwsh.	22
23	68.5	30.103	.129	29.974	30.10	31.0	27.0	19	58	.103	40.0	21.4	S	5	7	NW	0	Few	S Cu	W	Clear		Gwsh.	23
24	67.0	29.684	.124	29.560	29.68	43.2	38.0	31	61	.172	49.1	32.7	NW	6	8	NW	0	3	Ci S Cu	NW	Pt Cloudy		Gwsh.	24
25	69.0	30.083	.131	29.952	30.08	25.5	20.5	6	38	.052	39.0	25.5	NW	26	33	NW	0	0	0	0	Clear		Gwsh	25
26	65.5	30.430	.123	30.307	30.44	18.0	15.0	5	52	.049	21.1	16.8	NE	5	13	NW	0	10	S	0	Cloudy		Gwsh.	26
27	67.5	30.428	.128	30.300	30.43	23.0	21.5	18	79	.093	23.0	19.0	N	8	8	N	.01	10	S	NW	Cloudy		Gwsh.	27
28	66.0	30.410	.124	30.286	30.42	31.5	29.5	26	78	.136	32.0	29.3	SE	5	8	SE	0	10	S	SW	Cloudy		Gwsh.	28
29	65.0	30.136	.126	30.016	30.15	37.6	36.9	36	94	.211	40.2	36.3	NE	6	7	NE	.04	10	S fog	NE	Cloudy		Gwsh.	29
30																								30
31																								31
Sums		(a) 998	(a) .36	873.243	876.98	689.6	618.2	420	1921	2.746	(a)	(a)	(a)	218	399	(a)	1.00	139	(a)	(a)	(a)	(a)	(a)	(a)
Means		87.6 (a)	3.6 (a)	30.112	30.241	23.8	21.3	14.5	66.2	.095	(a)	(a)	(c) NW	7.5	13.8	(c) NW	(a)	4.8	(c) S	(c) W	(a)	(a)	(a)	(a)

† By dial when self-register is out of order. †† T indicates trace of precipitation.

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ORIGINAL MONTHLY RECORD OF OBSERVATIONS at WASHINGTON, D.C., for the Month of February, 1904.

Number of Station barometer 464; sum of corrections, -.021 inch.

8 P. M., 75TH MERIDIAN TIME; 7.52 P. M. LOCAL TIME.

Date. 1904.	Barometer. Attached thermometer.	Barometer. Observed reading.	Barometer. Total correction.	Barometer. Station. (Observed reading plus total cor.) (b)	Barometer. Reduced to sea-level. (b)	Thermometers. Dry. (b)	Thermometers. Wet. (b)	Dew-point. (b)	Relative humidity. (b)	Vapor-pressure. (b)	Self-reg. ther's. Max. (b)	Self-reg. ther's. Min. (b)	Wind. Dir.	Wind. Velocity. (b) †	Wind. Max. during preceding 12 hours. (b)	Wind. Dir.	Precipitation. Amt. at 8 p. m. (b) ††	Clouds. Am't.	Clouds. Kind.	Clouds. Dir. from.	State of weather.	Fog. (f)	Clouds last observed within one hour previous to observation.	Initials of observer.	Date. 1904.
		In.		In.	In.	°	°	°	%	In.	°	°		Mi.	Mi.		In.								
1	68.0	30.070	.128	29.942	30.07	16.4	13.0	-1	42	.036	30.5	16.4	NW	12	36	NW	T	0	0	0	Clear	0		Gwst	1
2	71.5	29.860	.136	29.724	29.85	39.0	33.0	23	51	.118	39.0	9.0	S	22	26	S	0	2	as	S	Clear	0		Gwst	2
3	72.0	30.260	.140	30.120	30.25	24.3	20.3	9	48	.060	29.7	16.5	S	5	18	NW	6	0	0	0	Clear	0		Gwst	3
4	70.0	30.383	.135	30.248	30.38	20.1	17.8	11	65	.066	29.1	16.0	0	0	19	NW	0	0	0	0	Clear	0		bbb	4
5	72.0	30.200	.140	30.060	30.19	38.0	32.5	24	54	.124	41.0	19.0	E	3	5	NE	0	10	Scu	0	Cloudy	0		Gwst	5
6	73.0	29.918	.141	29.777	29.90	46.4	43.0	39	76	.237	55.8	43.0	S	2	13	S	T	0	0	0	Clear	0		Gwst	6
7	75.0	29.658	.146	29.512	29.63	57.3	55.2	54	88	.417	63.3	48.6	S	6	24	SW	.01	10	S	SW	Cloudy	0		Gwst	7
8	72.5	30.420	.142	30.278	30.41	28.3	24.2	15	53	.081	34.2	28.3	N	8	29	NW	0	0	0	0	Clear	0		Gwst	8
9	72.0	30.470	.141	30.329	30.45	24.7	20.5	9	46	.060	30.6	18.0	E	8	12	E	0	0	0	0	Clear	0		Gwst	9
10	70.0	30.515	.135	30.380	30.51	24.0	19.5	6	41	.052	26.0	15.5	N	8	17	NE	0	10	S	0?	Cloudy	0		Gwst	10
11	71.0	30.430	.138	30.292	30.42	28.5	22.0	2	27	.042	34.8	20.0	N	4	13	N	0	0	0	0	Clear	0		bbb	11
12	70.5	30.422	.137	30.285	30.41	23.0	21.0	16	72	.085	27.0	19.8	NW	8	16	NW	T	6	Scu	NW	Pt Cloudy	0		Gwst	12
13	71.0	30.383	.138	30.245	30.37	28.3	24.8	17	59	.089	30.0	11.7	NW	2	14	NW	0	10	as	0?	Cloudy	0		Gwst	13
14	69.0	29.874	.130	29.744	29.87	31.5	30.0	28	84	.150	32.0	26.0	S	5	15	S	06	10	R	S	Sr Rain	0		Gwst	14
15	70.5	29.988	.135	29.853	29.98	27.0	21.5	5	35	.049	37.0	27.0	NW	12	27	NW	0	0	0	0	Clear	0		Gwst	15
16	65.5	30.262	.122	30.140	30.27	11.8	9.0	-4	43	.031	17.0	7.8	N	10	27	NW	0	0	0	0	Clear	0		Gwst	16
17	66.0	30.418	.124	30.294	30.42	20.2	15.2	-6	26	.028	23.6	5.0	NW	10	20	NW	0	0	0	0	Clear	0		Gwst	17
18	70.0	30.425	.135	30.290	30.42	24.8	21.3	13	55	.074	25.7	13.5	E	5	8	N	I	10	8	E	Cloudy	0		bbb	18
19	70.0	30.322	.134	30.188	30.32	29.0	27.0	23	77	.118	31.0	28.0	NW	6	12	NW	.34	7	Scu	NW	Pt Cloudy	0		Gwst	19
20	69.5	30.670	.135	30.535	30.67	24.8	23.0	19	77	.098	31.2	14.8	N	5	10	NW	0	0	0	0	Clear	0		Gwst	20
21	68.5	30.098	.129	29.969	30.10	36.0	36.0	36	100	.211	36.2	20.0	NE	6	8	NE	.14	10	N	0?	Sr Rain	0		Gwst	21
22	71.0	30.052	.136	29.916	30.05	40.0	32.5	20	41	.103	46.2	36.5	W	4	32	NW	.06	0	0	0	Clear	0		Gwst	22
23	74.0	29.782	.143	29.639	29.76	49.1	39.6	26	39	.136	53.1	31.0	S	4	27	S	0	8	Cu Cu	W	Cloudy	0		Gwst	23
24	69.0	29.883	.131	29.752	29.87	39.0	33.5	25	55	.130	52.7	39.0	W	9	31	NW	0	0	0	0	Clear	0		Gwst	24
25	67.5	30.338	.128	30.210	30.34	21.1	17.0	3	41	.044	25.5	20.2	N	9	38	NW	0	0	0	0	Clear	0		bbb	25
26	69.0	30.320	.132	30.188	30.32	20.0	19.2	17	88	.089	24.0	17.4	E	8	8	E	.01	10	N	SE	Sr Snow	0		Gwst	26
27	68.0	30.525	.130	30.395	30.53	30.8	28.3	24	73	.124	35.8	23.0	SE	4	10	SE	T	2	Cu S	SW	Clear	0		Gwst	27
28	67.0	30.132	.126	30.006	30.14	40.0	39.0	38	92	.228	40.0	31.5	S	2	15	SE	.02	10	N	SW	Sr Rain	0		Gwst	28
29	71.5	30.095	.137	29.958	30.09	37.0	37.0	37	100	.219	38.3	37.0	E	6	12	NE	.01	10	N	E	Sr Rain	0		Gwst	29
30																									30
31																									31
Sums		(a) 1.73	(a) .3904	872.269	875.99	880.4	775.9	528	1748	3.299	(a)	(a)	(a)	193	542	(a)	.65	125	(a)	(a)	(a)	0	(a)	(a)	(a)
Means		87.6 (a)	39.04 (a)	30.078	30.207	30.4	26.8	18.2	60.3	.114	(a)	(a)	(c) S	6.7	18.7	(c) NW	(a)	4.3	(c) N	(c) SW	(a)	(a)	(a)	(a)	(a)

† By dial when self-register is out of order. †† T indicates trace of precipitation.

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GENERAL INSTRUCTIONS—Continued.

CLOUDS.

23. The amount of clouds will be recorded on a scale of zero (0) to ten (10). If no clouds are visible, record zero; less than one-tenth, record "Few;" less than two-tenths and not less than one-tenth, record 1, etc. If the sky is cloudless at an observation, but clouds have been observed within the hour previous, record those last observed as "Few," together with kind and direction, in column headed "Clouds last observed within one hour previous to observation." Absence of movement will be indicated by the figure zero (0) in the space for direction; and at night, when there is doubt as to kind and direction, a query mark (?) will be placed after the questionable record. The directions *from* which the clouds are moving will be recorded to eight points of the compass, as N., NE., E., etc.

24. Haze, smoke, and fog will not be recorded in tenths, but must be designated as dense or light, except when smoke or fog occur in only a portion of the sky, then as follows: $\frac{1}{10}$ fog in NE., W.; $\frac{2}{10}$ smoke in W., N., etc. These fractional entries will not be considered in footing up the columns.

25. No clouds will be recorded with dense haze. If clouds are observed, the haze will be entered as light. Haze will not be given a direction. When dense haze is observed the state of weather will be recorded as "Hazy," and when light haze is observed the state of the weather will be determined from the amount of clouds.

26. Dense smoke and dense fog (unless dense fog prevails with nimbus clouds) will not be recorded when clouds are observed, except when from the roof of a building the sky can be seen, in which case a note will be entered stating the fact, and the state of the weather will be determined from the amount of clouds; otherwise, when dense smoke or dense fog is observed the weather will be recorded as "Smoky," or "Foggy," as the case may be. When light smoke or light fog is observed the state of weather will be determined from the amount of clouds.

27. Fog and smoke can have a direction; when no movement is perceptible, record zero (0) in space for direction.

28. If there be two or more kinds of clouds observed, invariably record the upper first and the lower immediately underneath in the space for clouds.

29. Nimbus clouds should be recorded only when precipitation is actually occurring at the place of observation, except cumulo-nimbus, from which rain is not falling at the place of observation.

30. Observers should be careful not to record cumulus or strato-cumulus as cumulo-nimbus. It is seldom that more than a few tenths of cumulo-nimbus clouds are visible.

PRECIPITATION.

31. The time of each beginning and ending of precipitation will be recorded; intervals of fifteen minutes or less between the time of ending and recommencement not being considered, except near the time of an observation, when all beginnings and endings must be recorded. Should there be a beginning or ending of precipitation between 7.40 and 8 o'clock, the clouds and state of weather must be changed accordingly. The observation is, technically, taken *at 8 o'clock* and the record must show the conditions existing at that time.

32. The amount of rainfall will be determined by measuring with the "measuring stick" the amount in the receiver of the rain gage; record as the amount one-tenth of the actual depth measured. After the receiver has been emptied the water in the overflow, if any, will be poured into the receiver, measured, and added to that found in the receiver. Precipitation of less than .005 of an inch will be recorded by the use of the letter "T." (See Cir. A, 1898.)

33. When there is danger of evaporation, the rainfall will be measured as soon as the rain ceases, but the gage will not be emptied; if the measurement at the next regular observation exceeds this one it will be substituted therefor.

34. All precipitation entirely or partially in the form of sleet, snow, or hail, will be melted, poured into the rain-gage receiver, measured, and recorded in the same manner as rainfall. If the observer has reason to believe that the amount collected in the snow gage is not the total snowfall since last observation, three measurements of the depth of snow will be made at different places and the mean of these measurements recorded as the actual depth of the snow. If it is impracticable to melt the snowfall, or the amount collected in the snow gage is not considered correct, one-tenth of the amount of snow in the gage or from measurements elsewhere, as the case may be, will be recorded as the amount of precipitation for that observation with an explanatory note.

35. Precipitation from fog, dew, or frost will not be recorded in this form. Absence of precipitation will be indicated by the figure zero (0).

36. Great care must be exercised in melting snow, sleet, and hail, as overheating will cause very rapid evaporation. (See Cir. A, 1898.)

37. All beginnings and endings of precipitation between 8 p. m. and 8 a. m. will be recorded in the column headed 8 a. m., and all between 8 a. m. and 8 p. m. in the column headed 8 p. m., page 6; if between 8 p. m. and midnight the date of occurrence will also be given. When the time of beginning or ending between 8 p. m. and 8 a. m. is unknown it will be recorded as "D. N." (During Night).

38. The depth of snowfall (which remained on the ground for an appreciable length of time) at 8 p. m. for the preceding 24 hours will be entered each day in the column headed "Unmelted 8 p. m. to 8 p. m.," on page 6.

39. Less than .05 of an inch of unmelted snow, and all snow which melts as it falls, will be recorded as "T," and in the case of the latter a marginal note "Melted as it fell" will be entered.

40. The total depth of unmelted snow on the ground each day at 8 p. m., by actual measurement (the mean of three measurements when the snow is drifted), will be entered in the column headed "On ground at 8 p. m.," page 6.

41. All unmelted snowfall will be recorded to inches and tenths.

42. When rain and snow occur during any 12 hours ending at 8 a. m. or 8 p. m., enter on the right-hand margin of page 6 for that day the amount of precipitation from melted snow (estimated if unknown).

WEATHER.

43. The state of the weather will be determined and recorded with reference to the degree of cloudiness, and whether or not precipitation is falling or likely to fall soon; thus, when the sky is three-tenths or less covered with clouds, record "Clear;" four to seven tenths, inclusive, "Partly cloudy;" eight to ten tenths, "Cloudy;" and "Misting," "Sprinkling," "Light rain," "Heavy rain," "Light snow," "Heavy snow," "Sleeting," "Hailing," "Threatening," and "Clearing" when these conditions exist (see paragraph 31). When two or more kinds of precipitation are falling at the time of observation all will be entered under the "State of Weather." When light fog, light haze, or light smoke is observed with no clouds, the state of weather will be recorded as "Clear."

44. When a thunderstorm is in progress with no rain, or threatening conditions obtain over a station, the state of the weather will be recorded as "Partly cloudy" or "Cloudy," according to amount of clouds, with "Threatening" written immediately after or indicated by International Symbol.

45. When a thunderstorm is prevailing at the moment of observation, or the rain is still falling, although neither thunder has been heard nor lightning seen for one hour previous to the observation, the International Symbol for thunderstorm will be entered after "State of Weather," and in the same column, and once for the entire month as a reference mark on the margin.

MISCELLANEOUS INSTRUCTIONS.

46. Specially designated stations having a triple self-register will enter on page 5, under the heading "Wind," the number of miles and the length of time the wind blew from the several points of the compass. Whenever there is a short break in the record, the miles and direction should be interpolated, if possible.

47. The total number of miles and hours from the several directions should equal the total monthly wind movement and hours in the month, respectively.

48. The percentages on page 5 will be obtained by dividing the sum (×100) of the number of miles and length of time, from each direction, by the total number of miles and hours in the month, respectively, and will be entered to the nearest whole per cent.

49. The total movement for the twenty-four hours ending at 12 midnight will be used as the total daily movement.

50. Observers will examine the self-register each morning immediately upon arriving at the office to see whether or not it is properly registering. If out of order a dial reading will be made at once, and a record made on the anemometer sheet of the reading and the time at which it was made. The number of miles lost by self-register will thus be determined and distributed approximately throughout the time the self-register failed to record.

51. In the column "Average cloudiness," page 6, observers will record in whole numbers the average amount of clouds during the day (sunrise to sunset) on a scale of zero (0) to ten (10), as determined from frequent personal observations.

52. The "Character of Day" will be determined from data in column headed "Average cloudiness;" zero to three, inclusive, record "Clear;" four to seven, "Partly cloudy;" eight to ten, "Cloudy."

53. The maximum, minimum, range, and change of temperature on page 6 will be entered in whole degrees only, the tenths of degrees being disposed of according to the usual rule.

54. At stations having thermographs the maximum and minimum temperatures on page 6 will be taken from the thermograph trace sheets. The maximum will be the highest corrected reading between midnight and midnight, but must not be higher than the reading of the standard maximum thermometer for the same period. The minimum will be the lowest corrected reading between midnight and midnight, but must not be lower than the reading of the standard minimum thermometer for the same period. The corrections necessary to reduce the thermograph readings to the readings of the standard instruments will be entered, with the proper signs, on the trace sheets, at 8 a. m., 8 p. m., at the times of the occurrence of the daily extremes, and whenever other eye readings are made. At stations not having thermographs, or in the event of the thermograph failing to record properly, the maximum and minimum will be obtained in accordance with instructions in paragraphs 55 and 56, following.

55. The maximum temperature for the day will be taken from the 8 p. m. observation, except under the following conditions: (1) The maximum temperature recorded at 8 a. m. of the next day will be used, when it is higher than the maximum at 8 p. m., and is believed to have occurred before midnight; (2) the maximum temperature recorded at the preceding 8 a. m. observation will be used when it is believed to have occurred after midnight, and is higher than any temperature recorded after 8 a. m. of that day.

56. The minimum temperature for the day will be taken from the 8 a. m. observation, except under the following conditions: (1) When a lower minimum is recorded at 8 p. m., it will be used; (2) when the minimum recorded at the following 8 a. m. observation is lower than that recorded during the preceding day, and is believed to have occurred before midnight, it will be used; (3) when the minimum recorded at 8 a. m. of the current day is believed to have occurred before midnight, the minimum temperature for the day will be taken from the 8 p. m. observation, unless example (2) requires it to be taken from the following 8 a. m. observation. The range is the difference between the maximum and minimum.

57. The mean (max. and min.) temperature for the day is the sum of the maximum and minimum (as recorded on page 6) divided by 2, and will be recorded to whole degrees only, the tenths being disposed of according to the usual rule. This mean will be used on all forms and reports as the *daily mean temperature.*

58. The change of temperature is the difference between the mean temperature of the day previous and that of the current day.

59. A copy of this form (Original Monthly Record of Observations) will be kept at station for reference and file.

GENERAL RULE FOR DISPOSITION OF DECIMALS.

60. In computing the monthly means of barometer and vapor-pressure, the division will be carried to four (4) decimal places, and the fourth decimal dropped in accordance with the following rule: If the fourth decimal figure be greater than 5 (*or 5 with a remainder*), the third figure will be increased by *one;* if the fourth decimal figure *be 5 exactly*, the third figure, when an *odd* number, will be increased by *one*, and when an *even* number will not be increased; if the fourth decimal figure be *less than 5*, retain the third figure unchanged. The fourth decimal figure will not be recorded.

61. In computing all means (except for barometer and vapor-pressure), carry the division to two (2) decimal places only, and dispose of the last decimal figure according to the preceding rule, which will govern in all cases as to disposition of decimals, unless otherwise provided for.

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at WASHINGTON, D.C. *, for the Month of* February *, 1904.*

Date. 1904.	WIND—NUMBER OF MILES AND LENGTH OF TIME FROM—(By self-register.) N. Miles.	N. Time.	NE. Miles.	NE. Time.	E. Miles.	E. Time.	SE. Miles.	SE. Time.	S. Miles.	S. Time.	SW. Miles.	SW. Time.	W. Miles.	W. Time.	NW. Miles.	NW. Time.	Calm. Miles.	Calm. Time.	Total daily movement.	Extreme daily velocity.	Date. 1904.
1									20	7·10	1	·15	59	5·15	217	11·20			297	38	1
2							4	·25	206	13·55	25	2·35	6	1·20	10	4·40	1	1·05	252	28	2
3	1	1·05					4	·35	42	8·55	11	1·50	16	2·10	164	10·25			238	36	3
4	60	6·05	4	·35					5	1·40	22	3·20	13	2·05	58	6·00	3	5·15	165	20	4
5			13	5·05	11	2·55			2	1·00	7	3·40	14	8·20			3	3·00	50	5	5
6			1	·35	1	·25	20	4·00	98	19·00									120	13	6
7									129	17·55	33	2·10	22	2·25	22	1·30			206	26	7
8	18	2·10											4	·15	328	21·35			350	30	8
9			42	8·00	23	3·00	5	1·15	15	3·35					35	8·10			120	12	9
10	160	18·05	31	4·45											8	1·10			199	17	10
11	108	14·55	3	·15											72	8·25	0	·25	183	14	11
12	14	6·10	29	5·05	14	2·30									96	9·40	1	·35	154	17	12
13	8	·50					10	2·20	3	·35			2	·30	141	19·45			164	15	13
14							45	7·35	112	15·10			2	·20	7	·55			166	16	14
15	17	1·55											19	1·40	261	20·25			297	30	15
16	68	5·05											2	·05	320	18·50			390	29	16
17															306	24·00			306	26	17
18	7	1·15			2	·25	34	7·20	3	·40	6	2·05	8	1·55	70	10·20			130	13	18
19	22	3·25					37	6·20	26	5·20					71	8·55			156	20	19
20	33	7·25	5	·55											81	12·55	2	2·45	121	10	20
21	14	4·45	38	7·20	17	4·55							2	·20	10	2·05	4	4·35	85	8	21
22											5	1·05	45	5·40	144	17·15			194	35	22
23							5	·40	182	15·40	15	4·30	39	·50	8	2·20			213	29	23
24													40	3·50	242	20·10			282	34	24
25	42	4·10											6	·50	357	19·00			405	45	25
26	40	6·40	14	3·05	45	6·50	8	2·05	24	5·20									131	10	26
27	33	6·15	51	11·30	4	·40	25	5·35											113	10	27
28			2	·40	21	1·50	87	14·35	37	6·55									147	19	28
29			120	19·50	34	4·10													154	12	29
30																					30
31																					31
S	645	89·15	353	67·40	172	27·40	284	52·45	904	122·50	125	21·30	263	37·50	3028	258·50	14	17·40	5788	(a)	(a)
M	11 %	13 %	6 %	10 %	3 %	4 %	5 %	8 %	16 %	18 %	2 %	3 %	5 %	5 %	52 %	37 %	0 %	3 %	199.6	(a)	(a)

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ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Washington DC, for the Month of February, 1904.

Date. 1904	TEMPERATURE. Maximum. (b) ¶	Minimum. (b) ¶	Range. (b) ¶	Change. (b)	Mean. (Max. and Min.) (b) ¶	Normal.	Departure.	Total excess or deficiency. Since 1st of month.	Since Jan. 1st. − 178
1	30	13	17	4	22	34	-12	-12	-190
2	40	2	38	1	21	32	-11	-23	-201
3	38	16	22	6	27	36	-9	-32	-210
4	29	13	16	6	21	33	-12	-44	-222
5	41	12	29	5	26	31	-5	-49	-227
6	56	36	20	20	46	32	+14	-35	-213
7	63	47	16	9	55	33	+22	-13	-191
8	55	24	31	15	40	35	+5	-8	-186
9	31	18	13	16	24	35	-11	-19	-197
10	25	16	9	4	20	35	-15	-34	-212
11	35	18	17	6	26	38	-12	-46	-224
12	27	16	11	4	22	37	-15	-61	-239
13	30	12	18	1	21	36	-15	-76	-254
14	32	25	7	7	28	35	-7	-83	-261
15	37	18	19	0	28	35	-7	-90	-268
16	18	7	11	16	12	37	-25	-115	-293
17	24	5	19	2	14	38	-24	-139	-317
18	26	13	13	6	20	38	-18	-157	-335
19	31	22	9	6	26	38	-12	-169	-347
20	31	14	17	4	22	37	-15	-184	-362
21	41	17	24	7	29	38	-9	-193	-371
22	46	34	12	11	40	38	+2	-191	-369
23	53	26	27	0	40	36	+4	-187	-365
24	53	33	20	3	43	34	+9	-178	-356
25	37	18	19	15	28	40	-12	-190	-368
26	24	17	7	8	20	39	-19	-209	-387
27	36	20	16	8	28	37	-9	-218	-396
28	40	31	9	8	36	36	0	-218	-396
29	39	36	3	2	38	36	+2	-216	-394
30								✓	✓
31									
S	1068	579	489	200	823	1039	(a)	(a)	(a)
M	36.8	20.0	16.9	6.9	28.4	(a)	(a)	(a)	(a)

Date. 1904	PRECIPITATION. 8 A. M. Character. ‡	Beginning.	Ending.	8 P. M. Character. ‡	Beginning.	Ending.	Total. 8 p. m. to 8 p. m. (b) ††	Normal.	Departure.	Total excess or deficiency. Since 1st of month.	Since Jan. 1st. − 5.8	Snowfall. (Inches and tenths.) Unmelted. (b) In.	On ground at 8 p. m. In.	Average daily cloudiness (0 to 10).	Character of day.	Date. 1904
1	Sd	7 10 am	7 35 am	Sd	5 08 pm	5 12 pm	T	.12	-.12	-.12	-1.00	T	5.2	6	Pt Cloudy	1
2							0	.12	-.12	-.24	-1.12	6	4.0	4	Pt Cloudy	2
3							0	.12	-.12	-.36	-1.24	0	4.0	2	Clear	3
4							0	.12	-.12	-.48	-1.36	0	3.8	0	Clear	4
5							0	.12	-.12	-.60	-1.48	0	3.1	8	Cloudy	5
6				R	1 05 pm	1 30 pm	T	.12	-.12	-.72	-1.60	0	1.0	6	Pt Cloudy	6
7				R	11 15 am	2 10 pm	.01	.12	-.11	-.83	-1.71	0	0	9	Cloudy	7
8							0	.12	-.12	-.95	-1.83	0	9	2	Clear	8
9							0	.12	-.12	-1.07	-1.95	0	0	3	Clear	9
10							0	.12	-.12	-1.19	-2.07	0	0	8	Cloudy	10
11	Sd	9 45 (10) pm	12 15 am				T	.12	-.12	-1.31	-2.19	T	0	0	Clear	11
12				Sd	2 30 pm 7 08 pm	3 15 pm 7 20 pm	T	.12	-.12	-1.43	-2.31	T	T	10	Cloudy	12
13							0	.12	-.12	-1.55	-2.43	0	0	0	Clear	13
14				Sa R	11 00 am 5 50 pm	3 10 pm	.06	.12	-.06	-1.61	-2.49	0.4	0.3	10	Cloudy	14
15	Sm	10 45 pm (14)	10 45 pm (14) 11 45 pm (14)				.10	.12	-.02	-1.63	-2.51	0.2	T	6	Pt Cloudy	15
16							0	.12	-.12	-1.75	-2.63	0	T	0	Clear	16
17							0	.12	-.12	-1.87	-2.75	0	T	0	Clear	17
18				Sd Sd	1 40 pm 3 50 pm	3 00 pm 4 05 pm	T	.12	-.12	-1.99	-2.87	T	T	8	Cloudy	18
19	Sd R	10 50 (18) pm 10 50 pm (18)	4 30 am	R Sd Sd	11 30 am 1 00 pm	11 30 am 1 05 pm 4 45 pm	.51	.12	+.39	-1.60	-2.48	1.0	1.0	10	Cloudy	19
20							0	.12	-.12	-1.72	-2.60	0	0.4	0	Clear	20
21				R	2 40 pm		.14	.12	+.02	-1.70	-2.58	0	T	10	Cloudy	21
22	R			R		10 25 am	.74	.12	+.62	-1.08	-1.96	0	0	5	Pt Cloudy	22
23							0	.12	-.12	-1.20	-2.08	0	0	6	Pt Cloudy	23
24							0	.12	-.12	-1.32	-2.20	0	0	4	Pt Cloudy	24
25							0	.12	-.12	-1.44	-2.32	0	0	1	Clear	25
26				Sd	8 40 am 11 20 am	10 50 am	.01	.12	-.11	-1.55	-2.43	0.1	0.1	10	Cloudy	26
27	Sd	1 50 am	8 25 p (26) 2 30 am	R	11 35 am	11 40 am	.01	.12	-.11	-1.66	-2.54	0.1	0	8	Cloudy	27
28				R	8 05 am 6 48 pm	10 40 am	.02	.13	-.11	-1.77	-2.65	0	0	10	Cloudy	28
29	R	12 15 am 2 50 am	10 45 p (28) 12 45 am 7 40 am	R	8 15 am		.05	.13	-.08	-1.85	-2.73	0	0	10	Cloudy	29
30										✓	✓					30
31							✓	✓				✓				31
S	(a)	(a)	(a)	(a)	(a)	(a)	1.65	3.50	(a)	(a)	(a)	1.8	(a)	156	(a)	(a)
M	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	5.4	(a)	(a)

‡ Use the following abbreviations: R—rain, Sd—dry snow, Sm—moist snow, Sl—sleet, H—hail. †† T indicates trace of precipitation.

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SUMMARY FOR THE MONTH OF February, 1904

PRESSURE.

(Correction to reduce to a 24-hour mean −.011)

STATION.

Mean. 8 a. m.	Mean. 8 p. m.	Mean. Monthly. (g)	Highest. (h)	Date.	Lowest. (h)	Date.	Absolute range.
30.112	30.078	30.095	30.535	20th	29.494	1st	1.041
Corrected mean		30.084					

REDUCED.

Mean. 8 a. m.	Mean. 8 p. m.	Mean. Monthly. (g)	Highest. (h)	Date.	Lowest. (h)	Date.	Absolute range.
30.241	30.207	30.224	30.67	20th	29.62	1st	1.05
Corrected mean		30.213	3,500-ft. (g) 26.38		10,000-ft. (g) 20.42		

TEMPERATURE.

MEAN.

Dry. 8 a. m.	Dry. 8 p. m.	Dry. (8+8)÷2 (g)	Wet. 8 a. m.	Wet. 8 p. m.	Wet. Monthly. (g)	Max.	Min.	Monthly. (g)
23.8	30.4	27.1	21.3	26.8	24.0	36.8	20.0	28.4

Sea-level. (g)	3,500-ft. (g)	10,000-ft. (g)	Highest. (i)	Date. (i)	Lowest. (i)	Date. (i)	Absolute range.	Greatest daily range. (i)	Date. (i)	Least daily range. (i)	Date. (i)
28.6	20.7	6.0	63	7th	2	2d	61	38	2d	3	29th

Dew-point. 8 a. m.	Dew-point. 8 p. m.	Dew-point. Monthly. (g)	Relative Humidity. 8 a. m.	Relative Humidity. 8 p. m.	Relative Humidity. Monthly. (g)	Vapor-pressure. 8 a. m.	Vapor-pressure. 8 p. m.	Vapor-pressure. Monthly. (g)
14.5	18.2	16.4	66.2	60.3	63.2	.095	.114	.104

NUMBER OF DAYS WITH—(j)

Maximum. Below 32°	Maximum. Above 90°	Min. Below 32°	Mean. Below— 14°	Mean. Below— 32°	Mean. Above— 41°	Mean. Above— 50°	Mean. Above— 59°	Mean. Above— 68°	Mean. Above— 77°	Mean. Above— 90°
12	0	24	1	21	3	1	0	0	0	0

PRECIPITATION (in inches and hundredths). (m)

Total am't.	Greatest amount in 24 consecutive hours. Am't.	Date. (k)	Excessive. 2.50 inches in 24 hours. (l) Am't.	Duration. h.	Duration. m.	Date. (k)	Excessive. 1 inch per hour. (l) Am't.	Duration. h.	Duration. m.	Date. (k)
1.65	.88	21 and 22		none			none			

NUMBER OF DAYS WITH—(8 p. m. to 8 p. m.)

Less than .01.	.01 to .10.	.11 to .25.	.26 to .50.	.51 to 1.00.	Over 1.00.	Total.	Snow. (n)	Hail. (n)	Fog. (n)
5	7	1	0	2	0	15	5	0	0

SNOW.

Total Depth. (o)	Average Depth. On 15th.	Average Depth. At end of month.
1.8	T	0

WIND.

Total movement (mid. to mid.).	Prevailing direction and percentage. (p)		Maximum velocity. (r)	Direction. (r)	Date. (r)
5788	NW	37 %	38	NW	25

NUMBER OF TIMES (AND PERCENTAGE) OBSERVED BLOWING FROM THE—(s)

N.		NE.		E.		SE.		S.		SW.		W.		NW.		Calm.	
9	16 %	4	7 %	5	9 %	4	7 %	14	19 %	0	0 %	5	9 %	19	33 %	1	2 %

WEATHER.

MEAN CLOUDINESS.

8 a. m.	8 p. m.	Monthly. (t)
4.8	4.3	5.4

NUMBER OF DAYS.

Clear.	Partly cloudy.	Cloudy.
10	7	12

NUMBER OF DAYS WITH PRECIPITATION (8 p. m. to 8 p. m.).

Clear. (u)	Partly cloudy. (u)	Cloudy. (u)	.01 inch or more.	.04 inch or more.
0	2	8	10	6

MISCELLANEOUS PHENOMENA.

DATES OF—(MIDNIGHT TO MIDNIGHT).

Frosts. Light.	Frosts. Heavy.	Frosts. Killing.	Thunderstorms. (v)	Solar Halos.	Lunar Halos.
23	0	0	0	0	0

Date of auroras and times of beginning and ending: 0

Winds of 25 to 39 miles per hour, inclusive (dates, velocities, and directions) (w): 1-36-NW, 2-26-S, 3-32-NW, 8-29-NW, 15-27-NW, 16-27-NW, 22-32-NW, 23-27-S, 24-31-NW, 25-38-NW

Winds of 40 miles per hour and over (dates, velocities, and directions) (x):

REMARKS.

(y) Maximum precipitation in 5 minutes .04, date 22d; 10 minutes .06, date 22; 15 minutes .07, date 22; 30 minutes .09, date 21st; 1 hour .15, date 21st; 2 hours .30, date 21

Current computations by Merrill

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Wm. B. Stockman, Observer, Weather Bureau.
District Forecaster, in charge.

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at WASHINGTON, D.C., for the Month of [illegible], 1904.

Number of Station barometer 464; sum of corrections, −.021 inch.

Date. 1904	Special Observations. Time. 75th Mer.	Time. Local.	Barometer. Attached thermometer.	Barometer. Observed reading.	Barometer. Total correction.	Barometer. Station. (Observed reading plus total cor.)	Barometer. Reduced to sea-level.	Thermometers. Dry.	Thermometers. Wet.	Dew-point.	Depression of the dew-point.	Relative humidity.	Maximum thermometer.	Wind. Direction.	Wind. † Velocity.	Wind. Max. since last observation.	Wind. Direction.	†† Precipitation	Clouds. Am't.	Clouds. Kind.	Clouds. Dir. from.	State of weather.	Special phenomena.	Initials of observer.	Date. 1904

If additional space is required, rule a sheet similar to this, and paste to this margin. † By dial when self-register is out of order. †† T indicates trace of precipitation. 8—154

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at WASHINGTON, D.C. *, for the Month of* February *, 1904*

Date.	8 A. M.—75 MERIDIAN TIME.								8 P. M.—75 MERIDIAN TIME.							
	Barometer.		Temperature.			Vapor-pressure.			Barometer.		Temperature.			Vapor-pressure.		
	3,500-foot.	10,000-foot.	Sea level. +0.2	3,500-foot. -7.7	10,000-foot. -22.4	Sea level.	3,500-foot.	10,000-foot.	3,500-foot.	10,000-foot.	Sea level. +0.7	3,500-foot. -7.7	10,000-foot. -22.4	Sea level.	3,500-foot.	10,000-foot.
1	25.87	20.02	28.6	20.7	6.0				26.23	20.23	16.6	8.7	-6.0			
2	26.30	20.18	9.2	1.3	-13.4				26.04	20.10	39.2	31.3	16.6			
3	26.50	20.49	16.7	8.8	-5.9				26.36	20.30	24.6	16.6	1.9			
4	26.54	20.44	16.2	8.3	-6.4				26.46	20.36	20.3	12.4	-2.3			
5	26.35	20.30	19.2	11.3	-3.4				26.38	20.40	38.2	30.3	15.6			
6	26.31	20.47	43.2	35.3	20.6				26.23	20.46	46.6	38.7	24.0			
7	26.13	20.38	48.2	40.3	25.6				26.06	20.41	57.5	49.6	34.9			
8	26.44	20.64	34.0	26.1	11.4				26.58	20.60	28.5	20.6	5.9			
9	26.61	20.53	18.2	10.3	-4.4				26.56	20.49	24.9	17.0	2.3			
10	26.64	20.53	16.2	8.3	-6.4				26.58	20.49	24.2	16.3	1.6			
11	26.57	20.50	20.2	12.3	-2.4				26.54	20.49	28.7	20.8	6.1			
12	26.48	20.44	21.2	13.3	-1.4				26.52	20.46	23.2	15.3	0.6			
13	26.58	20.45	11.9	4.0	-10.7				26.48	20.39	28.5	20.6	5.9			
14	26.40	20.42	27.0	19.1	4.4				26.10	20.21	31.7	23.8	9.1			
15	26.16	20.26	27.2	19.3	4.6				26.18	20.24	27.2	19.3	4.6			
16	26.30	20.24	8.0	0.1	-14.6				26.30	20.17	12.0	4.1	-10.6			
17	26.42	20.22	5.2	-2.7	-17.4				26.45	20.30	20.4	12.5	-2.2			
18	26.58	20.44	13.7	5.8	-8.9				26.52	20.42	25.0	17.1	2.4			
19	26.37	20.38	28.2	20.3	5.6				26.48	20.48	29.2	21.3	6.6			
20	26.69	20.60	15.0	7.1	-7.6				26.74	20.60	25.0	17.1	2.4			
21	26.68	20.59	20.2	12.3	-2.4				26.29	20.33	36.2	28.3	13.6			
22	26.05	20.24	36.7	28.8	14.1				26.32	20.49	40.2	32.3	17.6			
23	26.34	20.47	31.2	23.3	8.6				26.09	20.30	49.3	41.4	26.7			
24	26.05	20.34	43.4	35.5	20.8				26.19	20.40	39.2	31.3	16.6			
25	26.30	20.40	25.7	17.8	3.1				26.47	20.44	21.3	13.4	-1.3			
26	26.53	20.44	18.2	10.3	-4.4				26.42	20.34	20.2	12.3	-2.4			
27	26.54	20.47	23.2	15.3	.6				26.66	20.61	31.0	23.1	8.4			
28	26.60	20.60	31.7	23.8	9.1				26.38	20.50	40.2	32.3	17.6			
29	26.42	20.54	37.8	29.9	15.2				26.34	20.47	37.2	29.3	14.6			
30																
31																
S	765.75	592.02	695.4	463	40.0				764.95	591.48	886.2	657.1	230.8			
M.	26.405	20.414	24.0	16.1	1.4				26.378	20.396	30.6	22.7	8.0			

The temperature argument for reducing the barometer to the 3,500-foot and 10,000-foot planes will be the same as for the sea level.

The dry thermometer readings will be reduced to the various planes by applying the corrections in the table furnished for reducing the "monthly temperature" to these planes.

The vapor-pressure will be omitted until tables are furnished.

Form No. 1001—Met'l.

U. S. DEPARTMENT OF AGRICULTURE,

WEATHER BUREAU.

AWB
A.M.S.

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Baltimore, Md., *for the month of* February, 1904.

Station is supplied with barograph, thermograph, sunshine recorder, and self-recording rain gauge.*

If the office has been moved during the month, give date ~~~~; amount of change in height of barometer ~~ feet (higher or lower).

No. of extra barometer, 187; sum of corrections, −.013; date and observation upon which use of station barometer commenced, April 24 1897. 8:00 p.m. observation; sum of corrections used, −.011; station elevation, 123 feet; actual elevation, 125 feet.

Location of office: Number 532 N. Howard street, room Second floor; first observation taken in present office, 8:00 a. m., August 1" 1896, 1880

* Cancel words that are not appropriate.

GENERAL INSTRUCTIONS.

1. This form will be kept clean, and all entries therein made in a neat, legible hand. The leaves should be separated for convenience in entering the data, but the margins must not be trimmed.
2. All observations entered on Form No. 1083—Met'l will be immediately copied in the proper spaces herein. The observation must be enciphered from this form.
3. In order that the reports may be filed at the telegraph office not later than 8 o'clock, observations will be taken not to exceed twenty minutes before 8 a. m. and 8 p. m. If a decided change in the weather conditions occurs between the taking and filing of an observation, the telegraphic report should not be corrected to show the new conditions, but a few words will be added to the cipher report to briefly explain the changed conditions, viz: "Heavy rain began seven fifty," or "Rain ended seven fifty-five." (See paragraph 31.)
4. Instruments will be read and conditions noted in the following order: (1) Clouds, (2) state of weather, (3) maximum and minimum thermometers, (4) dry and wet thermometers (and thermograph noted), (5) anemoscope, (6) rain gage (or snow gage), (7) self-register to anemometer, (8) attached thermometer to barometer, (9) barometer (and barograph noted).
5. *All entries in this form must be made in black record ink.* Red ink will not be used except in underscoring, and for probable readings, when an observation is taken late (paragraph III, special instructions). If an error has been made in an original reading, an ink line will be drawn through the erroneous entry and the correct entry placed immediately above the canceled reading in *black* ink.
6. Entries of direction of wind and clouds will be *printed*, thus: N., NE., E., etc.
7. When crowded for room the International Symbols published in Circular No. 16, October 18, 1888, will be used, or notes put upon the margin.
8. Instructions relative to taking special observations are given in the Weather Code.
9. The meteorological observations taken the previous day will be verified each day by the observer who is responsible for the accuracy of this form.

PRESSURE.

10. Corrections for instrumental error, gravity, temperature, and removal, preceded by the proper algebraic signs, will be applied to the observed barometric readings. The correction for temperature will be obtained from the barometer correction cards as follows: Find at the top of the card the observed height of the barometer, and in the column headed "Attached thermometer" the reading of the attached thermometer; the number at the intersection of these lines will be the correction to be applied. If the reading of the thermometer is less than 29°, the correction will be added, and if 29° or more above zero, it will be subtracted. For barometer or attached thermometer readings not given in the table the temperature correction will be determined by interpolation. The sum of corrections for instrumental error, gravity, and removal *will be applied to the correction for temperature* before recording the latter. Example: Observed barometer reading, 29.512; attached thermometer, 62.0; sum of corrections, +.008. The correction card gives a correction of —.089, to which add the sum of corrections +.008=—.081 to be used and recorded in column headed "Total correction."
11. If the elevation of the barometer is changed and the elevation increased, +.001 inch will be added to the sum of corrections for each foot of increase; if the elevation be decreased, —.001 will be *added* for each foot of decrease. These corrections will be applied pending the receipt of new correction cards.
12. The reduced barometer will be taken directly from the special table supplied to each station, and will be entered to hundredths only. The temperature argument, at stations making two observations daily, will be the mean of the current 8 o'clock temperature and that of the preceding 8 o'clock observation; at stations making but one observation daily, it will be the mean of the maximum and minimum temperatures as read at the time of observation. The pressure argument will be the station pressure to hundredths of an inch only (the third decimal being disposed of according to rule). Enter the table with the arguments as above described and find the point where the argument lines intersect; the value there given will be the reduced pressure. It will be necessary to interpolate for the hundredths when the station pressure falls between the tenths of an inch as given at the top of the table. No interpolation will be required for the smaller differences of temperature. If the temperature argument does not appear in the table use the one nearest to it.

TEMPERATURE.

13. All thermometers must be read and the readings recorded to the nearest tenth of a degree, except the attached thermometer, which will be read and recorded to the nearest half degree.
14. Instrumental corrections will not be applied to thermometer readings except when they are ±0.3° or more in the case of mercurial thermometers and ±0.5° or more in the case of minimum or alcohol thermometers. The corrections furnished are for each 10°, and will be applied algebraically to the scale readings of the thermometers before recording the same. For a scale reading between those for which corrections are given an interpolated value of the correction will be used. Example: For a reading of 62.0° the correction is — 0.5°. The true temperature is, therefore, 62.0°—0.5°=61.5°. For a reading of —8.0° the correction is —1.2°, the true temperature would be —8.0°—1.2°=—9.2°. For a reading of —28.0° the correction is +7.8°, the true temperature would be —28.0+7.8°=—20.2°. The corrections of thermometers are given on the cards only as low as actual comparisons have been made with substandards. If it should happen that a reading of a thermometer is obtained at a point lower than any for which its corrections are given, then the corrections will be determined by continuing the same ratio of increase or decrease as between the last 30° for which the corrections are given. Example: The correction at +2° is —0.6°, and at —28.0° is —2°. The change of correction between +2° and —28° is —1.4°. For 7° it is about —0.3°. For a scale reading —35.0°, which is 7° below —28.0°, the correction is —2.3° and the true temperature is —35.0°—2.3°=—37.3°. When the signs of the temperature and correction are the same, add; when different, subtract.
15. The maximum and minimum thermometers will be set both at 8 a. m. and 8 p. m.
16. Observers should always note whether there is agreement in the temperature values given by the several thermometers; that is to say, (1) the top of the alcohol column of the minimum should indicate the same or nearly the same temperature as shown by the dry thermometer; (2) the minimum thermometer reading should be as low or lower than the dry thermometer at the current and the preceding observations; (3) the maximum thermometer reading should be as high or higher than the dry thermometer at the current and the preceding observations. Readings contrary to the above rules, if the instruments are properly set and read, are abnormal, and steps will be taken at once to discover and remove the cause, or replace the instrument if defective. Small differences, however, amounting in some cases to nearly or quite a degree, will occasionally be found to occur. On such occasions the exact readings must be recorded, with an explanatory note.
17. If the wet thermometer at any time is found to read higher than the dry, notwithstanding all precautions, examine the latter, and see that the bulb is perfectly clean and dry; then observe whether the muslin cover of the wet bulb is clean and properly moistened on all sides; if out of order, a new cover should be put on and properly moistened. If the wet thermometer still reads higher, place an extra wet thermometer beside it, make comparative readings, and forward them to the Central Office without delay. During foggy weather it may sometimes happen that the wet thermometer will read higher than the dry. In all cases record the exact reading of the instrument, but if it reads higher than the dry, record the latter as the temperature of the dew-point, and the relative humidity as 100, with an explanatory note on the margin.
18. The dew-point, relative humidity, and vapor-pressure will be obtained in accordance with the tables furnished; the dew-point will always be entered to the nearest whole degree, the relative humidity to the nearest whole per cent, and the vapor-pressure to nearest thousandth of an inch.

WIND.

19. The current velocity, and maximum velocity since last observation, will be obtained in accordance with Circular D, Instrument Room, 1893. When the anemometer cups are not moving at the time of observation the wind will be recorded as calm, whether or not 1 or more miles have been recorded during the last hour; if the cups are moving, a velocity of 1 mile or more will be recorded. At stations where only one observation is taken daily, the maximum velocity and direction will be entered at 8 a. m. and 8 p. m., the same as if both observations were taken.
20. The maximum velocity must always be equal to or greater than the current velocity, and will have but one direction recorded therewith.
21. The *extreme velocity each day* (from midnight to midnight) will be ascertained with reference to *the mile* of wind recorded in the shortest time, thus: Find the two marks *nearest each other* on the anemometer sheet, calculate accurately the amount of time *between* these two marks (from beginning to beginning or from ending to ending), divide 60 by this amount, and the quotient will be the *extreme velocity*. Example: The space of time between two marks nearest each other is two minutes; 60÷2=30, therefore 30 miles is the extreme velocity for the day.
22. When the extreme velocity is 12 miles per hour, or less, the maximum velocity for the same period of time should be the same; if more than 12 miles, the maximum velocity can be less.

Read Circular D, Instrument Room, 1893.

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Baltimore, Md., for the Month of February, 1904.

Number of Station barometer 4021; sum of corrections, —.011 inch.

8 A. M., 75TH MERIDIAN TIME; 7:54 A. M. LOCAL TIME.

Date. 1904	Barometer. Attached thermometer.	Observed reading.	Total correction.	Station. (Observed reading plus total cor.) (b)	Reduced to sea-level. (b)	Thermometers. Dry. (b)	Wet. (b)	Dew-point. (b)	Relative humidity. (b)	Vapor-pressure. (b)	Self-reg. ther's. Max. (b)	Min. (b)	Wind. Dir.	Velocity. (b) †	Max. during preceding 12 hours. (b)	Dir.	Precipitation. Amt. at 8 a. m. (b) ††	Clouds. Amt.	Kind.	Dir. from.	State of Weather.	Clouds last observed within one hour previous to observation.	Initials of observer	Date. 1904
		In.		In.	In.	°	°	°	%	In.	°	°		Mi.	Mi.		In.							
1	54.0	29.526	-.079	29.447	29.59	29.0	28.0	26	88	.136	29.0	27.5	W	8	8	W	T	10	S	W	cloudy	—	LCR	1
2	63.0	30.191	-.105	30.086	30.23	12.2	9.2	-6	39	.028	17.0	11.0	S	8	21	NW	0	1 2	Ci Cu A S	W W	clear	—	LCR	2
3	65.0	30.284	-.111	30.173	30.31	16.2	12.6	-3	38	.032	39.2	16.2	W	6	38	NW	0	0	0	0	clear	0	LCR	3
4	64.5	30.406	-.110	30.296	30.45	16.6	13.8	4	52	.047	25.8	16.6	NW	6	15	NW	0	0	0	0	clear	0	LCR	4
5	68.5	30.189	-.120	30.069	30.21	28.0	23.8	18	57 54	.093 77	28.0	19.3	SW	1	12	W	0	10 1/2	A.S. Smoke	NW SW	cloudy	—	LCR	5
6	72.0	29.980	-.129	29.851	29.98	40.8	37.2	32	71	.180	40.8	33.0	SW	7	7	SW	0	1 1/2	a.Cu. Smoke	SW SW	Pt. cloudy	—	LCR	6
7	64.0	29.702	-1.06	29.596	29.73	41.1	40.6	40	96	.247	50.3	39.4	SW	2	9	SW	0	Dn.	Fog	SW	Foggy	—	H.B.W.	7
8	65.5	30.063	-.111	29.952	30.08	33.3	29.0	21	58	.108	39.7	33.3	NW	12	30	NW	0	5	S.Cu.	NW	Pt. cloudy	—	LCR	8
9	66.5	30.478	-.116	30.362	30.51	19.5	16.5	7	54	.054	28.7	18.3	N	8	6	NW	0	4	Ci S A S	W W	cloudy	—	LCR	9
10	68.5	30.540	-.121	30.419	30.57	15.0	11.6	-4	39	.031	24.2	14.0	N	16	17	NE	0	5 2	A Cu. S Cu.	W W	Pt. cloudy	—	LCR	10
11	70.5	30.427	-.127	30.300	30.45	21.3	17.3	4	43	.047	25.8	20.4	N	12	15	N	0	Few	S	N	clear	—	LCR	11
12	69.5	30.327	-.123	30.204	30.35	18.7	16.7	11	69	.066	29.3	17.5	NE	4	9	E	0	10	A.S.	W	cloudy	—	LCR	12
13	69.5	30.467	-.121	30.346	30.50	14.0	12.0	5	67	.049	20.8	14.0	NW	5	13	N	0	0	0	0	clear	0	LCR	13
14	60.5	30.160	-.098	30.062	30.20	27.0	20.0	21	76	.108	27.0	24.1	SE	9	~~15~~ 12	~~NW~~ SE	0	10 4	Fog	SE	Cloudy	—	HBW	14
15	67.0	29.879	-.115	29.764	29.90	28.3	25.0	18	62	.093	33.0	28.3	NW	10	15	NW	.05	0	0	0	clear	0	LCR	15
16	67.0	30.144	-.116	30.028	30.17	7.8	6.0	-3	57	.032	24.6	7.0	NW	7	17	NW	0	0	0	0	clear	0	LCR	16
17	69.5	30.369	-.123	30.246	30.40	6.8	5.0	-4	55	.031	11.0	5.2	NW	11	18	NW	0	0	0	0	clear	0	LCR	17
18	70.5	30.496	-.127	30.369	30.52	14.8	12.0	1	50	.040	22.0	13.0	N	12	12	NW	0	5	Ci S	NW	Pt. cloudy	—	LCR	18
19	70.5	30.180	-.126	30.054	30.19	28.0	27.0	25	88	.130	28.0	21.7	SE	5	12	SE	.11	10	N	S	Lt. rain	—	LCR	19
20	72.0	30.572	-.131	30.441	30.59	17.8	15.2	7	58	.054	29.0	16.0	NW	4	14	N	0	0	0	0	clear	0	LCR	20
21	56.0	30.527	-.087	30.440	30.58	21.5	20.2	17	81	.089	30.0	18.8	E	5	7	N	0	10	S	S	cloudy	—	LCR	21
22	55.0	29.688	-.082	29.606	29.74	41.5	40.1	39	89	.237	47.0	39.4	W	10	12	SE	.68	10 10+	f.	W W	Lt rain	—	H.B.W.	22
23	55.0	30.014	-.083	29.931	30.06	31.7	27.3	19	54	.098	38.5	29.5	SW	4	10	W	0	2	S Cu.	W	clear	—	LCR	23
24	65.0	29.608	-.108	29.500	29.63	43.8	38.2	31	59	.172	49.2	38.3	W	12	14	W	0	2	S. Cu.	W	clear	—	LCR	24
25	66.0	30.048	-.112	29.936	30.08	24.0	18.8	1	33	.040	38.5	24.0	NW	24	30	NW	0	Few	S. Cu.	NW	clear	—	LCR	25
26	69.0	30.405	-.122	30.283	30.43	18.0	15.2	6	55	.052	21.8	15.5	N	4	10	N	0	10	S	N	cloudy	—	LCR	26
27	69.0	30.399	-.122	30.277	30.43	24.0	22.5	19	80	.098	24.0	19.0	NE	6	10	N	.02	10	S	NE	cloudy	—	LCR	27
28	59.0	30.340	-.095	30.245	30.38	30.5	29.0	26	84	.136	31.0	27.9	SE	8	10	SE	0	10	S	S	Cloudy	—	HBW	28
29	70.0	30.123	-.123	30.000	30.13	38.0	36.5	34	87	.195	38.5	38.3	NE	10	11	NE	.04	10	S	NE	cloudy	—	LCR	29
30																								30
31																								31
Sums		871.137 (a)	3.049 (a)	872.283	876.39	709.2	631.3	408	1829	2707	(a)	(a)	(a)	236	414	(a)	0.90	149	(a)	(a)	(a)	(a)	(a)	(a)
Means		(a)	(a)	30.079	30.220	24.5	21.8	14.1	63.1	.093	(a)	(a)	(c) NW	8.1	14.3	(c) NW	(a)	5.1	(c) S	(c) W	(a)	(a)	(a)	(a)

† By dial when self-register is out of order. †† T indicates trace of precipitation.

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(2)

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Baltimore, Md., for the Month of February, 1904.

Number of Station barometer 402 A.V.; sum of corrections, −.011 inch.

8 P. M., 75th MERIDIAN TIME; 7.54 P. M. LOCAL TIME.

Date. 1904	Barometer. Attached thermometer.	Barometer. Observed reading.	Barometer. Total correction.	Barometer. Station. (Observed reading plus total cor.) (b)	Barometer. Reduced to sea-level. (b)	Thermometers. Dry. (b)	Thermometers. Wet. (b)	Dew-point. (b)	Relative humidity. (b)	Vapor-pressure. (b)	Self-reg. ther's. Max. (b)	Self-reg. ther's. Min. (b)	Wind. Dir.	Wind. Velocity. (b) †	Wind. Max. during preceding 12 hours. (b)	Wind. Dir.	Precip-itation. Amt. at 8 p. m. (b) ††	Clouds. Am't.	Clouds. Kind.	Clouds. Dir. from.	State of weather.	Fog. (f)	Clouds last observed within one hour previous to observation.	Initials of observer.	Date. 1904
		In.		In.	In.	°	°	°	%	In.	°	°		Mi.	Mi.		In.								
1	62.0	29.992	−.102	29.890	30.03	17.0	15.0	5	66	.060	32.0	17.0	NW	16	32	NW	T	0	0	0	clear	0	0	JAB.	1
2	66.0	29.802	−.112	29.690	29.83	34.0	30.3	24	64	.124	35.0	12.2	SW	8	20	S	0	3	S	0?	clear	0	—	JAB.	2
3	65.0	30.202	−.110	30.092	30.23	23.2	20.7	14	66	.077	27.3	16.2	S	7	17	NW	0	0	0	0	clear	0	0	JAB.	3
4	65.0	30.328	−.111	30.217	30.37	24.0	20.2	10	60	.063	27.3	16.6	W	7	20	NW	0	0	0	0	clear	0	0	JAB.	4
5	70.0	30.162	−.124	30.038	30.18	33.0	29.4	24	64	.124	34.2	28.0	SE	2	5	S	0	10	S	SE	Cloudy	0	—	JAB.	5
6	72.0	29.870	−.128	29.742	29.87	50.3	45.0	39	66	.237	55.7	40.8	SW	3	16	SW	T	5	A.S. Fog	SW?	Pt. Cloudy	0	—	JAB.	6
7	65.0	29.579	−.108	29.471	29.60	57.5	54.8	53	84	.402	64.0	41.1	W	8	24	SW	T	0	0	0	Clear	Fog	—0	HBW.	7
8	66.0	30.362	−.113	30.249	30.39	28.2	23.7	13	48	.074	35.0	28.2	NW	7	27	NW	0	0	0	0	clear	0	0	LCR.	8
9	65.0	30.390	−.111	30.279	30.43	24.2	21.0	13	58	.074	28.3	19.5	E	5	11	S	0	0	0	0	clear	0	0	JAB.	9
10	65.5	30.460	−.113	30.347	30.50	25.1	22.0	15	61	.081	25.8	16.0	N	8	14	N	0	10	S	N?	Cloudy	0	—	JAB.	10
11	66.5	30.377	−.116	30.261	30.40	29.3	25.0	15	52	.081	35.8	21.3	NE	5	15	NE	0	0	0	0	clear	0	0	JAB.	11
12	65.0	30.366	−.111	30.255	30.41	20.8	19.1	15	75	.081	26.0	18.7	NW	5	14	N	T	0	0	0	clear	0	0	JAB.	12
13	64.5	30.328	−.109	30.219	30.37	27.0	24.0	18	64	.093	30.0	14.0	N	3	14	NW	0	0	0	0	Clear	0	0	JAB	13
14	62.0	29.808	−.101	29.707	29.85	31.0	30.2	29	91	.157	31.0	27.0	S	5	16	S	.02	10	N	S?	Sleeting	0	—	JAB.	14
15	67.0	29.933	−.115	29.818	29.96	24.6	21.0	12	53	.070	36.2	24.6	NW	9	32	NW	0	0	0	0	Clear	0	0	JAB.	15
16	64.0	30.197	−.108	30.089	30.23	11.0	8.2	−6	41	.028	16.7	7.8	NW	9	26	NW	0	0	0	0	Clear	0	0	JAB.	16
17	66.0	30.370	−.113	30.257	30.41	22.0	19.0	11	58	.066	27.0	6.8	NW	7	15	NW	0	0	0	0	Clear	0	0	JAB.	17
18	66.0	30.380	−.114	30.266	30.42	21.7	19.9	16	74	.085	25.2	14.8	SE	6	13	N	T	10	S	SE?	Cloudy	0	—	JAB.	18
19	67.0	30.273	−.116	30.157	30.30	29.0	27.0	23	77	.118	32.0	28.0	N	9	17	N	.14	0	0	0	clear	0	0	JAB	19
20	68.0	30.639	−.120	30.519	30.67	30.0	26.5	20	62	.103	33.6	17.8	N	2	12	N	0	0	0	0	Clear	0	0	JAB	20
21	57.0	30.027	−.088	29.939	30.08	40.0	39.5	39	96	.237	40.0	21.5	E	10	12	E	.13	10	N	E	Lt rain	0	—	LCR	21
22	53.0	29.948	−.078	29.870	30.00	38.3	32.0	21	46	.108	45.7	38.3	NW	10	34	NW	.06	0	0	0	Clear	0	0	H.B.W.	22
23	63.5	29.730	−.110	29.620	29.76	49.2	41.0	30	47	.164	55.0	31.7	SW	3	19	SW	0	7	A.S	W	Pt. Cloudy	0	—	JAB.	23
24	70.0	29.839	−.122	29.717	29.86	38.6	33.0	24	54	.124	51.6	38.6	NW	12	38	NW	0	0	0	0	clear	0	Fog A.S.H.W	JAB	24
25	67.5	30.296	−.118	30.178	30.33	21.8	18.0	6	46	.052	26.3	18.8	NW	6	24	NW	0	0	0	0	clear	0	0	JAB	25
26	65.5	30.280	−.112	30.168	30.32	19.0	18.0	15	84	.081	22.0	18.0	E	6	7	NE	.02	10	N	E?	Lt Snow	0	—	JAB	26
27	69.0	30.482	−.122	30.360	30.50	31.0	28.8	25	76	.130	33.5	24.0	S	2	10	E	0	Lt.	Fog	S	clear	0	—	JAB.	27
28	68.0	30.102	−.118	29.984	30.12	38.5	36.5	34	83	.195	38.5	30.5	SW	3	10	SW	.20	10	N	SW?	Lt. rain	0	—	JAB	28
29	70.0	30.065	−.123	29.942	30.07	36.8	35.0	34	93	.195	38.8	35.8	E	8	13	E	.03	10	N	E?	Misting	0	—	JAB	29
30																									30
31																									31
Sums		874.87	2.46	871.3441	875.47	876.2	783.8	595	18.99	3.484	(a)	(a)	(a)	191	525	(a)	0.60	95	(a)	(a)	(a)	1	(a)	(a)	(a)
Means		(a)	(a)	30.0446	30.189	30.2	27.0	20.5	65.5	.120	(a)	(a)	(c) NW	6.6	18.1	(c) NW	(a)	3.3	(c) N	(c) E. SW.	(a)	(a)	(a)	(a)	(a)

† By dial when self-register is out of order. †† T indicates trace of precipitation.

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GENERAL INSTRUCTIONS—Continued.

CLOUDS.

23. The amount of clouds will be recorded on a scale of zero (0) to ten (10). If no clouds are visible, record zero; less than one-tenth, record "Few;" less than two-tenths and not less than one-tenth, record 1, etc. If the sky is cloudless at an observation, but clouds have been observed within the hour previous, record those last observed as "Few," together with kind and direction, in column headed "Clouds last observed within one hour previous to observation." Absence of movement will be indicated by the figure zero (0) in the space for direction; and at night, when there is doubt as to kind and direction, a query mark (?) will be placed after the questionable record. The directions *from* which the clouds are moving will be recorded to eight points of the compass, as N., NE., E., etc.

24. Haze, smoke, and fog will not be recorded in tenths, but must be designated as dense or light, except when smoke or fog occur in only a portion of the sky, then as follows: $\frac{1}{10}$ fog in NE., W.; $\frac{2}{10}$ smoke in W., N., etc. These fractional entries will not be considered in footing up the columns.

25. No clouds will be recorded with dense haze. If clouds are observed, the haze will be entered as light. Haze will not be given a direction. When dense haze is observed the state of weather will be recorded as "Hazy," and when light haze is observed the state of the weather will be determined from the amount of clouds.

26. Dense smoke and dense fog (unless dense fog prevails with nimbus clouds) will not be recorded when clouds are observed, except when from the roof of a building the sky can be seen, in which case a note will be entered stating the fact, and the state of the weather will be determined from the amount of clouds; otherwise, when dense smoke or dense fog is observed the weather will be recorded as "Smoky," or "Foggy," as the case may be. When light smoke or light fog is observed the state of weather will be determined from the amount of clouds.

27. Fog and smoke can have a direction; when no movement is perceptible, record zero (0) in space for direction.

28. If there be two or more kinds of clouds observed, invariably record the upper first and the lower immediately underneath in the space for clouds.

29. Nimbus clouds should be recorded only when precipitation is actually occurring at the place of observation, except cumulo-nimbus, from which rain is not falling at the place of observation.

30. Observers should be careful not to record cumulus or strato-cumulus as cumulo-nimbus. It is seldom that more than a few tenths of cumulo-nimbus clouds are visible.

PRECIPITATION.

31. The time of each beginning and ending of precipitation will be recorded; intervals of fifteen minutes or less between the time of ending and recommencement not being considered, except near the time of an observation, when all beginnings and endings must be recorded. Should there be a beginning or ending of precipitation between 7.40 and 8 o'clock, the clouds and state of weather must be changed accordingly. The observation is, technically, taken *at 8 o'clock* and the record must show the conditions existing at that time.

32. The amount of rainfall will be determined by measuring with the "measuring stick" the amount in the receiver of the rain gage; record as the amount one-tenth of the actual depth measured. After the receiver has been emptied the water in the overflow, if any, will be poured into the receiver, measured, and added to that found in the receiver. Precipitation of less than .005 of an inch will be recorded by the use of the letter "T." (See Cir. A, 1898.)

33. When there is danger of evaporation, the rainfall will be measured as soon as the rain ceases, but the gage will not be emptied; if the measurement at the next regular observation exceeds this one it will be substituted therefor.

34. All precipitation entirely or partially in the form of sleet, snow, or hail, will be melted, poured into the rain-gage receiver, measured, and recorded in the same manner as rainfall. If the observer has reason to believe that the amount collected in the snow gage is not the total snowfall since last observation, three measurements of the depth of snow will be made at different places and the mean of these measurements recorded as the actual depth of the snow. If it is impracticable to melt the snowfall, or the amount collected in the snow gage is not considered correct, one-tenth of the amount of snow in the gage or from measurements elsewhere, as the case may be, will be recorded as the amount of precipitation for that observation with an explanatory note.

35. Precipitation from fog, dew, or frost will not be recorded in this form. Absence of precipitation will be indicated by the figure zero (0).

36. Great care must be exercised in melting snow, sleet, and hail, as overheating will cause very rapid evaporation. (See Cir. A, 1898.)

37. All beginnings and endings of precipitation between 8 p. m. and 8 a. m. will be recorded in the column headed 8 a. m., and all between 8 a. m. and 8 p. m. in the column headed 8 p. m., page 6; if between 8 p. m. and midnight the date of occurrence will also be given. When the time of beginning or ending between 8 p. m. and 8 a. m. is unknown it will be recorded as "D. N." (During Night).

38. The depth of snowfall (which remained on the ground for an appreciable length of time) at 8 p. m. for the preceding 24 hours will be entered each day in the column headed "Unmelted 8 p. m. to 8 p. m.," on page 6.

39. Less than .05 of an inch of unmelted snow, and all snow which melts as it falls, will be recorded as "T," and in the case of the latter a marginal note "Melted as it fell" will be entered.

40. The total depth of unmelted snow on the ground each day at 8 p. m., by actual measurement (the mean of three measurements when the snow is drifted), will be entered in the column headed "On ground at 8 p. m.," page 6.

41. All unmelted snowfall will be recorded to inches and tenths.

42. When rain and snow occur during any 12 hours ending at 8 a. m. or 8 p. m., enter on the right-hand margin of page 6 for that day the amount of precipitation from melted snow (estimated if unknown).

WEATHER.

43. The state of the weather will be determined and recorded with reference to the degree of cloudiness, and whether or not precipitation is falling or likely to fall soon; thus, when the sky is three-tenths or less covered with clouds, record "Clear;" four to seven tenths, inclusive, "Partly cloudy;" eight to ten tenths, "Cloudy;" and "Misting," "Sprinkling," "Light rain," "Heavy rain," "Light snow," "Heavy snow," "Sleeting," "Hailing," "Threatening," and "Clearing" when these conditions exist (see paragraph 31). When two or more kinds of precipitation are falling at the time of observation all will be entered under the "State of Weather." When light fog, light haze, or light smoke is observed with no clouds, the state of weather will be recorded as "Clear."

44. When a thunderstorm is in progress with no rain, or threatening conditions obtain over a station, the state of the weather will be recorded as "Partly cloudy" or "Cloudy," according to amount of clouds, with "Threatening" written immediately after or indicated by International Symbol.

45. When a thunderstorm is prevailing at the moment of observation, or the rain is still falling, although neither thunder has been heard nor lightning seen for one hour previous to the observation, the International Symbol for thunderstorm will be entered after "State of Weather," and in the same column, and once for the entire month as a reference mark on the margin.

MISCELLANEOUS INSTRUCTIONS.

46. Specially designated stations having a triple self-register will enter on page 5, under the heading "Wind," the number of miles and the length of time the wind blew from the several points of the compass. Whenever there is a short break in the record, the miles and direction should be interpolated, if possible.

47. The total number of miles and hours from the several directions should equal the total monthly wind movement and hours in the month, respectively.

48. The percentages on page 5 will be obtained by dividing the sum ($\times 100$) of the number of miles and length of time, from each direction, by the total number of miles and hours in the month, respectively, and will be entered to the nearest whole per cent.

49. The total movement for the twenty-four hours ending at 12 midnight will be used as the total daily movement.

50. Observers will examine the self-register each morning immediately upon arriving at the office to see whether or not it is properly registering. If out of order a dial reading will be made at once, and a record made on the anemometer sheet of the reading and the time at which it was made. The number of miles lost by self-register will thus be determined and distributed approximately throughout the time the self-register failed to record.

51. In the column "Average cloudiness," page 6, observers will record in whole numbers the average amount of clouds during the day (sunrise to sunset) on a scale of zero (0) to ten (10), as determined from frequent personal observations.

52. The "Character of Day" will be determined from data in column headed "Average cloudiness;" zero to three, inclusive, record "Clear;" four to seven, "Partly cloudy;" eight to ten, "Cloudy."

53. The maximum, minimum, range, and change of temperature on page 6 will be entered in whole degrees only, the tenths of degrees being disposed of according to the usual rule.

54. At stations having thermographs the maximum and minimum temperatures on page 6 will be taken from the thermograph trace sheets. The maximum will be the highest corrected reading between midnight and midnight, but must not be higher than the reading of the standard maximum thermometer for the same period. The minimum will be the lowest corrected reading between midnight and midnight, but must not be lower than the reading of the standard minimum thermometer for the same period. The corrections necessary to reduce the thermograph readings to the readings of the standard instruments will be entered, with the proper signs, on the trace sheets, at 8 a. m., 8 p. m., at the times of the occurrence of the daily extremes, and whenever other eye readings are made. At stations not having thermographs, or in the event of the thermograph failing to record properly, the maximum and minimum will be obtained in accordance with instructions in paragraphs 55 and 56, following.

55. The maximum temperature for the day will be taken from the 8 p. m. observation, except under the following conditions: (1) The maximum temperature recorded at 8 a. m. of the next day will be used, when it is higher than the maximum at 8 p. m., and is believed to have occurred before midnight; (2) the maximum temperature recorded at the preceding 8 a. m. observation will be used when it is believed to have occurred after midnight, and is higher than any temperature recorded after 8 a. m. of that day.

56. The minimum temperature for the day will be taken from the 8 a. m. observation, except under the following conditions: (1) When a lower minimum is recorded at 8 p. m., it will be used; (2) when the minimum recorded at the following 8 a. m. observation is lower than that recorded during the preceding day, and is believed to have occurred before midnight, it will be used; (3) when the minimum recorded at 8 a. m. of the current day is believed to have occurred before midnight, the minimum temperature for the day will be taken from the 8 p. m. observation, unless example (2) requires it to be taken from the following 8 a. m. observation. The range is the difference between the maximum and minimum.

57. The mean (max. and min.) temperature for the day is the sum of the maximum and minimum (as recorded on page 6) divided by 2, and will be recorded to whole degrees only, the tenths being disposed of according to the usual rule. This mean will be used on all forms and reports as the *daily mean temperature*.

58. The change of temperature is the difference between the mean temperature of the day previous and that of the current day.

59. A copy of this form (Original Monthly Record of Observations) will be kept at station for reference and file.

GENERAL RULE FOR DISPOSITION OF DECIMALS.

60. In computing the monthly means of barometer and vapor-pressure, the division will be carried to four (4) decimal places, and the fourth decimal dropped in accordance with the following rule: If the fourth decimal figure be greater than 5 (*or 5 with a remainder*), the third figure will be increased by *one;* if the fourth decimal figure *be 5 exactly*, the third figure, when an *odd* number, will be increased by *one*, and when an *even* number will not be increased; if the fourth decimal figure be *less than 5*, retain the third figure unchanged. The fourth decimal figure will not be recorded.

61. In computing all means (except for barometer and vapor-pressure), carry the division to two (2) decimal places only, and dispose of the last decimal figure according to the preceding rule, which will govern in all cases as to disposition of decimals, unless otherwise provided for.

ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Baltimore, Md., for the Month of February, 1904.

Date. 1904	WIND—NUMBER OF MILES AND LENGTH OF TIME FROM—(By self-register.) N. Miles.	N. Time.	NE. Miles.	NE. Time.	E. Miles.	E. Time.	SE. Miles.	SE. Time.	S. Miles.	S. Time.	SW. Miles.	SW. Time.	W. Miles.	W. Time.	NW. Miles.	NW. Time.	Calm. Miles.	Calm. Time.	Total daily movement.	Extreme daily velocity.	Date. 1904
1																			304	35	1
2																			244	26	2
3																			273	30	3
4																			194	22	4
5																			76	7	5
6																			137	16	6
7																			273	32	7
8																			296	30	8
9																			154	11	9
10																			228	15	10
11																			201	15	11
12																			151	14	12
13																			141	15	13
14																			156	15	14
15																			305	38	15
16																			299	29	16
17																			216	18	17
18																			140	13	18
19																			179	18	19
20																			143	15	20
21																			128	12	21
22																			240	38	22
23																			166	20	23
24																			353	43	24
25																			341	32	25
26																			134	10	26
27																			141	10	27
28																			140	10	28
29																			192	16	29
30																					30
31																					31
S																			5950	(a)	(a)
M	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	205.2	(a)	(a)

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ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Baltimore, Md., for the Month of February, 1904.

February 1904

Date. 1904	TEMPERATURE. Maximum. (b)	Minimum. (b)	Range. (b)	Change. (b)	Mean. (Max. and Min.) (b)	Normal.	Departure.	Total excess or deficiency. Since 1st of month.	Since Jan. 1st. 210
1	32	12	20	3	22	35	-13	-13	-223
2	39	11	28	3	25	32	-7	-20	-230
3	39	16	23	3	28	36	-8	-28	-238
4	27	17	10	6	22	34	-12	-40	-250
5	34	19	15	4	26	31	-5	-45	-255
6	55	34	21	18	44	32	+12	-33	-243
7	64	39	25	8	52	34	+18	-15	-225
8	53	23	30	14	38	36	+2	-13	-223
9	28	18	10	15	23	36	-13	-26	-236
10	26	14	12	3	20	36	-16	-42	-252
11	36	20	16	8	28	38	-10	-52	-262
12	26	18	8	6	22	37	-15	-67	-277
13	30	14	16	0	22	37	-15	-82	-292
14	31	24	7	6	28	36	-8	-90	-300
15	36	18	18	1	27	35	-8	-98	-308
16	18	7	11	15	12	37	-25	-123	-333
17	27	5	22	4	16	38	-22	-145	-355
18	25	13	12	3	19	39	-20	-165	-375
19	32	21	11	7	26	39	-13	-178	-388
20	34	16	18	1	25	37	-12	-190	-400
21	47	19	28	8	33	38	-5	-195	-405
22	47	34	13	7	40	38	+2	-193	-403
23	55	30	25	2	42	36	+6	-187	-397
24	52	35	17	2	44	35	+9	-178	-388
25	35	19	16	17	27	39	-12	-190	-400
26	22	16	6	8	19	39	-20	-210	-420
27	34	21	13	9	28	37	-9	-219	-429
28	38	28	10	5	33	37	-4	-223	-433
29	39	35	4	4	37	37	0	-223	-433
30									
31									
S	1061	596	465	190	828	1051	(a)	(a)	(a)
M	36.6	20.6	16.0	6.6	28.6	(a)	(a)	(a)	(a)

Date. 1904	PRECIPITATION. 8 A. M. Character. ‡	Beginning.	Ending.	8 P. M. Character. ‡	Beginning.	Ending.	Total. 8 p. m. to 8 p. m. (b) ††	Normal.	Departure.	Total excess or deficiency. Since 1st of month.	Since Jan. 1st. -1.47	Snowfall. (Inches and tenths.) Unmelted. (b)	On ground at 8 p. m.	Average daily cloudiness (0 to 10).	Character of day.
												In.	In.		
1	Sd	7:45 A.M.	7:55 A.M.	Sd	9:20 A.M.	9:30 A.M.	T	.12	-.12	-.12	-.59	T	3.0	6	Pt. Cloudy
2							0	.12	-.12	-.24	-.71		2.5	0	Clear
3							0	.12	-.12	-.36	-.83		2.0	0	Clear
4							0	.12	-.12	-.48	-.95		2.0	Fog	Clear
5							0	.12	-.12	-.60	-1.07		2.0	9	Cloudy
6				R	1:25 P.M.	2:15 P.M.	T	.12	-.12	-.72	-1.19		T	7	Pt. Cloudy
7				A.	10:45 A.M.	10:55 A.M.									
				R	1:15 P.M.	1:35 P.M.	T	.12	-.12	-.84	-1.31			8	Cloudy
8							0	.12	-.12	-.96	-1.43			4	Pt. Cloudy
9							0	.12	-.12	-1.08	-1.55			8	Cloudy
10							0	.12	-.12	-1.20	-1.67			8	Cloudy
11							0	.12	-.12	-1.32	-1.79			Fog	Clear
12				Sd	12:05 P.M.	12:15 P.M.									
				Sl	1:30 P.M.	2:10 P.M.	T	.12	-.12	-1.44	-1.91	T	T	10	Cloudy
13							0	.12	-.12	-1.56	-2.03		0.1	2	Clear
14				Sd	12:20 P.M.	3:50 P.M.									
				Sl	5:30 P.M.	5:40 P.M.									
				Sl	7:20 P.M.	— — —	02	.12	-.10	-1.66	-2.13	0.3	0.2	10	Cloudy
15	Sl.	— — —	10:10 P.M.												
	Sd	10:10 P.M.	— DN.				.05	.13	-.08	-1.74	-2.21	0.3	T	7	Pt. Cloudy
16							0	.13	-.13	-1.87	-2.34		T	Fog	Clear
17							0	.13	-.13	-2.00	-2.47		T	0	Clear
18				Sd	2:40 P.M.	5:40 P.M.	T	.13	-.13	-2.13	-2.60	T	T	8	Cloudy
19	Sd	10:55 P.M. 18	DN.	R	11:40 A.M.	11:40 A.M.									
	Sl.	DN.	DN.	R+Sl.		12:05 P.M.									
	R.	7:30 A.M.	—	Sm	12:05 P.M.	5:40 P.M.	.25	.13	+.12	-2.01	-2.48	1.6	1.6	10	Cloudy
20							0	.13	-.13	-2.14	-2.61		0.8	1	Clear
21				R	4:35 P.M.	— — —	.13	.13	0	-2.14	-2.61		T	9	Cloudy
22	R	— — —	— — —	R	— — —	10:20 A.M.	.74	.13	+.61	-1.53	-2.00			6	Pt. Cloudy
23							0	.13	-.13	-1.66	-2.13			6	Pt. Cloudy
24							0	.13	-.13	-1.79	-2.26			4	Pt. Cloudy
25							0	.13	-.13	-1.92	-2.39			1	Clear
26				Sd	2:05 P.M.	— — —	.02	.13	-.11	-2.03	-2.50	0.3	0.3	10	Cloudy
27			8:40 P.M. 26"				.02	.13	-.11	-2.14	-2.61	T	T	8	Cloudy
28				R	8:01 A.M.	8:20 A.M.									
				R	9:05 A.M.	10:50 A.M.									
				R	4:00 P.M.	— — —	.20	.13	+.07	-2.07	-2.54			10	Cloudy
29	R	about —	8:10 P.M. 25"	R	9:20 A.M.	9:25 A.M.									
	R	11:00 P.M.	DN.	R	10:15 A.M.	— * —	.07	.13	-.06	-2.13	-2.60			10	Cloudy
30															
31															
S	(a)	(a)	(a)	(a)	(a)	(a)	1.50	3.63	(a)	(a)	(a)	2.5	(a)	162	(a)
M	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	5.6	(a)

‡ Use the following abbreviations: R—rain, Sd—dry snow, Sm—moist snow, Sl—sleet, H—hail. †† T indicates trace of precipitation.

(6)

* Ended 8:30 a.m. Mar. 1.

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SUMMARY FOR THE MONTH OF February, 1904.

PRESSURE.

(Correction to reduce to a 24-hour mean -.012)

STATION.

Mean. 8 a. m.	Mean. 8 p. m.	Mean. Monthly. (g)	Highest. (h)	Date.	Lowest. (h)	Date.	Absolute range.
30.079	30.046	30.062	30.519	20"	29.447	1"	1.072
Corrected mean		30.050					

REDUCED.

Mean. 8 a. m.	Mean. 8 p. m.	Mean. Monthly. (g)	Highest. (h)	Date.	Lowest. (h)	Date.	Absolute range.
30.220	30.189	30.204	30.67	20"	29.59	1"	1.08
Corrected mean		30.192	3,500-ft. (g)	26.36	10,000-ft. (g)	20.40	

TEMPERATURE.

MEAN.

Dry. 8 a. m.	Dry. 8 p. m.	Dry. (8+8)÷2 (g)	Wet. 8 a. m.	Wet. 8 p. m.	Wet. Monthly. (g)	Max.	Min.	Monthly. (g)
24.5	30.2	27.4	21.8	27.0	24.4	36.6	20.6	28.6

Sea-level. (g)	3,500-ft. (g)	10,000-ft. (g)
28.9	19.3	4.9

Highest. (i)	Date. (i)	Lowest. (i)	Date. (i)	Absolute range.	Greatest daily range. (i)	Date. (i)	Least daily range. (i)	Date. (i)
64	7"	5	17"	59	30	8"	4	29

Dew-point.

8 a. m.	8 p. m.	Monthly. (g)
14.1	20.5	17.3

Relative Humidity.

8 a. m.	8 p. m.	Monthly. (g)
63.1	65.5	64.3

Vapor-pressure.

8 a. m.	8 p. m.	Monthly. (g)
.093	.120	.106

NUMBER OF DAYS WITH—(j)

Maximum. Below 32°	Maximum. Above 90°	Min. Below 32°	Mean. Below— 14°	Mean. Below— 32°	Mean. Above— 41°	Mean. Above— 50°	Mean. Above— 59°	Mean. Above— 68°	Mean. Above— 77°	Mean. Above— 90°
10	0	24	1	20	4	1	0	0	0	0

PRECIPITATION (in inches and hundredths). (m)

Total Am't.	Greatest Amount in 24 Consecutive Hours. Am't.	Greatest Amount in 24 Consecutive Hours. Date. (k)	Excessive. 2.50 Inches in 24 Hours. (l) Am't.	Excessive. 2.50 Inches in 24 Hours. (l) Duration. h. m.	Excessive. 2.50 Inches in 24 Hours. (l) Date. (k)	Excessive. 1 Inch per Hour. (l) Am't.	Excessive. 1 Inch per Hour. (l) Duration. h. m.	Excessive. 1 Inch per Hour. (l) Date. (k)
1.50	0.87	21-22"		None			None	

NUMBER OF DAYS WITH—(8 p. m. to 8 p. m.)

Less than .01.	.01 to .10.	.11 to .25.	.26 to .50.	.51 to 1.00.	Over 1.00.	Total.	Snow. (n)	Hail. (n)	Fog. (n)
5	5	3	0	1	0	14	4	0	1

SNOW.

Total Depth. (o)	Average Depth. On 15th.	Average Depth. At end of month.
2.5	T	None

WIND.

Total movement (mid. to mid.).	Prevailing direction and percentage. Taken from Form No. (p) 1021		Maximum velocity. (r)	Direction. (r)	Date. (r)
5950	NW	31 %	38	NW	3d

Number of times (and percentage) observed blowing from the—(s)

N.		NE.		E.		SE.		S.		SW.		W.		NW.		Calm.	
9	16 %	4	7 %	5	9 %	5	9 %	4	7 %	8	14 %	6	10 %	17	29 %	0	0 %

WEATHER.

Mean Cloudiness.

8 a. m.	8 p. m.	Monthly. (t)
5.1	3.3	5.6

Number of Days.

Clear.	Partly cloudy.	Cloudy.
9	7	13

Number of Days with Precipitation (8 p. m. to 8 p. m.).

Clear. (n)	Partly cloudy. (n)	Cloudy. (n)	.01 inch or more.	.04 inch or more.
0	2	7	9	6

MISCELLANEOUS PHENOMENA.

DATES OF—(MIDNIGHT TO MIDNIGHT).

Frosts. Light.	Frosts. Heavy.	Frosts. Killing.	Thunderstorms. (v)	Solar Halos.	Lunar Halos.
None	None	None	None	None	(Corona) 27

Date of auroras and times of beginning and ending: None

Winds of 25 to 39 miles per hour, inclusive (dates, velocities, and directions) (w): 1," 32 NW. 3" 38 NW. 7" 30 NW. 8" 27 NW. 15" 32 NW. 16" 26 NW. 22" 34 NW. 24" 37 NW. 25" 30 NW.

Winds of 40 miles per hour and over (dates, velocities, and directions) (x): None

REMARKS.

From rainfall only.

(y) Maximum precipitation in 5 minutes +, date ; 10 minutes +, date ; 15 minutes +, date ;

30 minutes +, date ; 1 hour +, date ; 2 hours +, date

+ No record, Tipping bucket raingauge in shelter during heaviest rainfall.

Prepared by J.A.Barry

Oliver L Fassig, ~~Observer~~, Weather Bureau.

Section Director.

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ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Baltimore, Md., for the Month of February, 1904.

Number of Station barometer 4021; sum of corrections, −.011 inch.

SPECIAL OBSERVATIONS.

Date. 1904.	Time. 75th Mer.	Time. Local.	Barometer. Attached thermometer.	Barometer. Observed reading.	Barometer. Total correction.	Barometer. Station. (Observed reading plus total cor.)	Barometer. Reduced to sea-level.	Thermometers. Dry.	Thermometers. Wet.	Dew-point.	Depression of the dew-point.	Relative humidity.	Maximum thermometer.	Wind. Direction.	Wind. † Velocity.	Wind. Max. since last observation.	Wind. Direction.	†† Precipitation	Clouds. Am't.	Clouds. Kind.	Clouds. Dir. from.	State of weather.	Special phenomena.	Initials of observer.	Date. 1904.
								None Taken																	

If additional space is required, rule a sheet similar to this, and paste to this margin. † By dial when self-register is out of order. †† T indicates trace of precipitation.

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ORIGINAL MONTHLY RECORD OF OBSERVATIONS at Baltimore, Md., for the Month of February, 1904.

Date.	8 A. M.—75 MERIDIAN TIME.								8 P. M.—75 MERIDIAN TIME.							
	Barometer.		Temperature.			Vapor-pressure.			Barometer.		Temperature.			Vapor-pressure.		
	3,500-foot.	10,000-foot.	Sea level.	3,500-foot.	10,000-foot.	Sea level.	3,500-foot.	10,000-foot.	3,500-foot.	10,000-foot.	Sea level.	3,500-foot.	10,000-foot.	Sea level.	3,500-foot.	10,000-foot.
1	25.84	20.00	29.3	19.7	5.3				26.18	20.19	17.3	7.7	6.7			
2	26.31	20.19	12.5	2.9	-11.5				26.01	20.05	34.3	24.7	10.3			
3	26.45	20.41	16.5	6.9	-7.5				26.34	20.25	23.5	13.9	-0.5			
4	26.52	20.41	16.9	7.3	-7.1				26.46	20.37	24.3	14.7	.3			
5	26.36	20.36	28.3	18.7	4.3				26.37	20.43	33.3	23.7	9.3			
6	26.25	20.40	41.1	31.5	17.1				26.21	20.47	50.6	41.0	26.6			
7	26.09	20.37	41.4	31.8	17.4				26.00	20.31	57.8	48.2	33.8			
8	26.40	20.60	33.6	24.0	9.6				26.55	20.58	28.5	18.9	4.5			
9	26.60	20.53	19.8	10.2	-4.2				26.52	20.42	24.5	14.9	.5			
10	26.63	20.49	15.3	5.7	-8.7				26.56	20.43	25.4	15.8	1.4			
11	26.54	20.47	21.6	12.0	-2.4				26.53	20.47	29.6	20.0	5.6			
12	26.47	20.42	19.0	9.4	-5.0				26.49	20.37	21.1	11.5	-2.9			
13	26.54	20.40	14.3	4.7	-9.7				26.46	20.37	27.3	17.7	3.3			
14	26.36	20.38	27.3	17.7	3.3				26.06	20.17	31.3	21.7	7.3			
15	26.11	20.22	28.6	19.0	4.6				26.14	20.21	24.9	15.3	.9			
16	26.26	20.17	8.1	-1.5	-15.9				26.27	20.11	11.3	1.7	-12.7			
17	26.40	20.20	7.1	-2.5	-16.9				26.45	20.30	22.3	12.7	1.7			
18	26.57	20.42	15.1	5.5	-8.9				26.49	20.37	22.0	12.4	-2.0			
19	26.34	20.33	28.3	18.7	4.3				26.46	20.47	29.3	19.7	5.3			
20	26.67	20.57	18.1	8.3	-5.9				26.75	20.62	30.3	20.7	6.3			
21	26.69	20.62	21.8	12.2	-2.2				26.28	20.37	40.3	30.7	16.3			
22	26.07	20.28	41.8	32.2	17.8				26.29	20.46	38.8	29.2	14.8			
23	26.31	20.43	32.0	22.4	8.0				26.08	20.28	49.5	39.9	25.5			
24	26.00	20.30	44.1	34.5	20.1				26.16	20.37	38.8	29.2	14.8			
25	26.29	20.37	24.3	14.7	0.3				26.45	20.39	22.1	12.5	-1.9			
26	26.50	20.40	18.3	8.7	-5.7				26.40	20.31	19.3	9.7	-4.7			
27	26.52	20.44	24.3	14.7	0.3				26.63	20.59	31.3	21.7	7.3			
28	26.55	20.57	30.8	21.2	6.8				26.34	20.45	38.8	29.2	14.8			
29	26.39	20.51	38.3	28.7	14.3				26.33	20.47	36.1	26.5	12.1			
30																
31																
S	766.03	591.26	717.9	439.3	21.9				764.26	590.65	883.9	605.5	210.5			
M	26.42	20.39	24.8	15.1	0.8				26.35	20.37	30.5	20.9	7.3			

The temperature argument for reducing the barometer to the 3,500-foot and 10,000-foot planes will be the same as for the sea level.

The dry thermometer readings will be reduced to the various planes by applying the corrections in the table furnished for reducing the "monthly temperature" to these planes.

The vapor-pressnre will be omitted until tables are fnrnished.