CLIMATOLOGICAL DATA FOR JAMAICA, W. I.

Through the kindness of Mr. Maxwell Hall, of Montego Bay, Jamaica, the meteorological service of that colony communicates an abstract of the very interesting climatological records of that highly important West Indian service. The climatological summary furnished by Mr. Hall, through his assistant, Mr. Robert Johnstone, of the Meteorological Office, is reproduced in the following table. For descriptive details of the stations and instruments see Vol. XXV, pages 308 and 356.

Montego Bay, where Mr. Maxwell Hall resides, is between 4 and 5 miles west, and also the same distance north of Kempshot Observatory. The location of the latter is N. 18° 24′ 50″, W. 77° 52′ 22″. Stony Hill Reformatory is about 8 miles north of Kingston and within a mile to the west. Hope Gardens is between 3 and 4 miles to the north of Kingston, and about the same distance to the east. From these measurements the latitudes and longitudes given in the following table have been deduced:

Climatological data for Jamaica, W. I.

MARCH, 1898.

	Morant Point Lighthouse.	Negril Point Lighthouse.	Kingston.	Montego Bay.	Castleton Gardens.	Hope Gardens.	Stony Hill Reformatory.	Hill Gardens. (Cin. Planet.)
Latitude	17°56′	18° 16′	17° 58′	18° 30′	18° 12′	18° 02′	18° 06′	18°05′
Longitude	76°10′	78° 23′	76° 48′	77° 57′	76° 50°	76° 46′	76° 49′	76°39′
Elevation (feet)	8	33	50	160	580	600	1,400	4,907
Mean barometer, 7 a. m.	29.947	29.964	29.962	29.961	.....	.....	.....	.....
Mean barometer, 3 p. m.	29.912	29.900	29.892	29.896	.....	.....	.....	.....
Mean temperature, 7 a. m.	.....	73.6	69.7	70.3	66.6	67.1	67.0	55.7
Mean temperature, 3 p. m.	.....	82.8	83.7	80.7	79.6	82.6	77.6	63.4
Mean of maxima	.....	85.3	85.7	82.4	82.4	86.0	82.1	67.1
Mean of minima	.....	69.0	67.4	67.2	63.6	62.3	63.1	52.8
Highest maximum	.....	90	89.6	87.0	87	88	85	71
Lowest minimum	.....	64	64.0	62.9	56	59	60	56
Mean dew-point, 7 a. m.	.....	68.1	63.5	65.1	64.2	61.7	62.5	51.4
Mean dew-point, 3 p. m.	.....	70.7	66.0	64.6	70.0	67.0	74.7	57.4
Mean relative humidity, 7 a. m.	.....	83	81	84	89	84	86	85
Mean relative humidity, 3 p. m.	.....	67	56	58	70	58	91	80
Monthly rainfall (inches)	0.23	0.09	1.31	0.56	2.37	0.66	2.60	2.08
Average daily wind movement	.....	261.0	41.7	110.3	.....	.....	.....	61.4
Average wind direction, 7 a. m.	nne.	n.by e.	n.	ene.	.....	.....	.....	e.
Average wind direction, 3 p. m.	*	var.	se.by s	ne.	.....	.....	.....	e.
Average hourly velocity, 7 a. m.	11	10.6	1.5	2.6	.....	.....	.....	.....
Average hourly velocity, 3 p. m.	12	16.5	4.2	9.6	.....	.....	.....	.....
Average cloudiness (tenths):								
7 a. m. Lower clouds	2.5	1.7	0.6	0.7	.....	.....	.....	.....
7 a. m. Middle clouds	1.8	1.2	0.7	1.4	.....	.....	.....	.....
7 a. m. Upper clouds	0.8	0.3	0.6	0.7	.....	.....	.....	.....
3 p. m. Lower clouds	2.6	2.8	0.7	0.0	.....	.....	.....	.....
3 p. m. Middle clouds	1.5	2.2	1.3	2.2	.....	.....	.....	.....
3 p. m. Upper clouds	0.7	0.7	2.1	0.6	.....	.....	.....	....

*ne. by n.

APRIL, 1898.

	Morant Point Lighthouse.	Negril Point Lighthouse.	Kingston.	Montego Bay.	Castleton Gardens.	Hope Gardens.	Stony Hill Reformatory.	Hill Gardens. (Cin. Planet.)
Mean barometer, 7 a. m.	29.976	29.975	29.987	29.975	.....	.....	.....	.....
Mean barometer, 3 p. m.	29.925	29.930	29.952	29.916	.....	.....	.....	.....
Mean temperature, 7 a. m.	.....	76.8	72.9	72.5	69.1	70.7	68.7	59.1
Mean temperature, 3 p. m.	.....	81.2	82.7	83.0	82.2	82.8	78.3	64.1
Mean of maxima	.....	84.4	85.9	85.5	86.4	82.9	83.4	67.2
Mean of minima	.....	71.2	69.7	68.4	63.2	64.0	64.6	54.8
Highest maximum	.....	88	88.9	90.7	91	91	87	72
Lowest minimum	.....	68	67.3	64.3	58	61	61	50
Mean dew-point, 7 a. m.	.....	72.4	66.0	67.9	65.7	62.7	65.5	54.5
Mean dew-point, 3 p. m.	.....	73.8	68.5	69.3	77.2	68.1	74.1	59.3
Mean relative humidity, 7 a. m.	.....	86	79	85	89	75	90	83
Mean relative humidity, 3 p. m.	.....	79	62	65	81	60	87	84
Monthly rainfall (inches)	1.36	3.84	0.17	1.23	7.47	1.07	5.32	4.25
Average daily wind movement	.....	205.9	49.5	71.3	.....	.....	.....	13.0
Average wind direction, 7 a. m.	*	*	n.	ene.	.....	.....	.....	e.
Average wind direction, 3 p. m.	ene.	var.	se.	ne.	.....	.....	.....	se.
Average hourly velocity, 7 a. m.	4.7	6.3	0.9	1.7	.....	.....	.....	.....
Average hourly velocity, 3 p. m.	5.9	9.3	6.0	6.9	.....	.....	.....	.....
Average cloudiness (tenths):								
7 a. m. Lower clouds	3.0	1.2	0.7	0.4	.....	.....	.....	.....
7 a. m. Middle clouds	1.6	2.2	0.9	1.1	.....	.....	.....	.....
7 a. m. Upper clouds	0.9	2.3	2.0	1.8	.....	.....	.....	.....
3 p. m. Lower clouds	2.8	5.0	3.2	0.4	.....	.....	.....	.....
3 p. m. Middle clouds	1.8	3.2	1.2	5.3	.....	.....	.....	.....
3 p. m. Upper clouds	0.9	0.5	3.2	0.0	.....	.....	.....	.....

*ne. by e.

Climatological data for Jamaica—Continued.

MAY, 1898.

	Morant Point Lighthouse.	Negril Point Lighthouse	Kingston.	Montego Bay.	Castleton Gardens.	Hope Gardens.	Stony Hill Reformatory.	Hill Gardens. (Cin. Planet.)
Mean barometer, 7 a. m.	29.914	29.910	29.917	29.900	29.900	.....	.....	25.203
Mean barometer, 3 p. m.	29.867	29.873	29.867	29.852	29.853	.....	.....	25.176
Mean temperature, 7 a. m.	.....	78.2	77.1	75.4	73.1	74.2	71.7	61.4
Mean temperature, 3 p. m.	.....	83.1	83.6	83.0	81.6	82.0	77.0	65.0
Mean of maxima	.....	86.1	86.0	85 8	83.8	86.6	82.6	68.2
Mean of minima	.....	73.0	72.4	70.7	66.3	67.9	66.8	57.5
Highest maximum	.....	88.8	89.1	89.9	90	93	87	72
Lowest minimum	.....	67.9	69.2	65.9	63	59	65	55
Mean dew-point, 7 a. m.	.....	71.7	70.7	70.8	69.4	69.0	69.3	57.0
Mean dew-point, 3 p. m.	.....	73.0	71.8	73.1	73.8	71.4	73.6	62.0
Mean relative humidity, 7 a. m.	.....	81	81	86	86	84	92	80
Mean relative humidity, 3 p. m.	.....	72	69	72	78	69	89	85
Monthly rainfall (inches)	15.93	10.39	9.66	13.56	23.60	15.74	21.21	44.31
Average daily wind movement	.....	242.3	43.4	55.1	.....	.....	.....	23.5
Average wind direction, 7 a. m.	ene.	ne.	n.	ne.	.....	.....	.....	e.
Average wind direction, 3 p. m.	*	var.	se.	n.	.....	.....	.....	se.
Average hourly velocity, 7 a. m.	5.2	9.5	1.0	2.2	.....	.....	.....	.....
Average hourly velocity, 3 p. m.	7.2	13.7	5.3	5.4	.....	.....	.....	....
Average cloudiness (tenths):								
7 a. m. Lower clouds	3.5	1.7	0.9	1.2	.....	.....	.....	.....
7 a. m. Middle clouds	1.9	2.2	0.8	0.1	.....	.....	.....	.....
7 a. m. Upper clouds	1.1	2.5	2.2	4.4	.....	.....	.....	.....
3 p. m. Lower clouds	3.7	3.5	3.2	1.1	.....	.....	.....	.....
3 p. m. Middle clouds	1.6	4.2	1.6	5.7	.....	.....	.....	.....
3 p. m. Upper clouds	0.9	1.0	1.9	1.2	.....	.....	.....	.....

*ne. by e.

MEXICAN CLIMATOLOGICAL DATA.

Through the kind cooperation of Señor Mariano Bárcena, Director, and Señor José Zendejas, vice-director, of the Central Meteorologico-Magnetic Observatory, the monthly summaries of Mexican data are now communicated in manuscript, in advance of their publication in the *Boletin Mensual;* an abstract translated into English measures is here given in continuation of the similar tables published in the MONTHLY WEATHER REVIEW since 1896. The barometric means have not been reduced to standard gravity, but this correction will be given at some future date when the pressures are published on our Chart IV.

Mexican data for May, 1898.

Stations.	Altitude.	Mean barometer.	Temperature. Max.	Temperature. Min.	Temperature. Mean.	Relative humidity.	Precipitation.	Prevailing direction. Wind.	Prevailing direction. Cloud.
	Feet.	*Inch.*	° *F.*	° *F.*	° *F.*	%	*Inch.*		
Durango (Seminario)	6,243	24.00	.....	46.4	72.1	24	0.65	wsw.	w.
Leon(Guanajuato)	5,934	24.25	92.7	52.9	73.6	37	1.08	wsw.	ne., w.
Magdalena (Sonora)	2,618	.....	.....	.....	76.6	.....	.....	sw.	n.
Mazatlan	25	29.89	83.8	66.9	75.9	80	0.06	nw.	sw.
Merida (Yucatan)	50	29.86	101.3	65.8	83.3	63	2.67	e.	se.
Mexico (Obs. Cent.)	7,472	23.04	84.0	50.0	65.8	47	0.69	nw.	sw.
Morelia (Seminario)	6,401	23.94	87.8	53.6	70.5	51	0.85	wsw.	nw.
Oaxaca	5,164	25.03	94.1	51.1	75.6	54	1.18	s.	e.
Puebla (Col. Cat.)	7,112	23.32	83.5	41.2	67.1	59	3.19	e.	e.
San Luis Potosi	6,202	24.08	93.4	53.4	72.0	48	0.44	e	w.
Toluca	8,612	21.98	75.0	40.1	59.7	56	1.07	nw.	.....
Tuxtla G. (Chiapas)	1,864	28.07	100.2	64.4	75.7	61	3.16	nw.	.....
Tuxpan (Vera Cruz)	.....	30.17	98.6	64.9	85.6	77	1.81	e.	s.
Zapotlan (Seminario)	5,078	.....	93.0	55.2	76.5	41	0.14	sse.	w.
Zacatecas	8,015	22.47	86.0	46.4	66.4	37	0.29	sw.	sw.

OBSERVATIONS AT RIVAS, NICARAGUA.

The records contributed for many years by Dr. Earl Flint, at Rivas, Nicaragua, include barometric readings. His present station is at 11° 26′ N., 85° 47′ W. The observations at 7:17 a. m., local time are simultaneous with Greenwich 1 p. m. The altitude of his barometer is 36 meters above sea level, but until the barometer has been compared with a standard it seems hardly necessary to publish the daily readings. The wind force is recorded on the Beaufort scale, 0–12. When cloudiness is less than $\frac{1}{10}$, the letter "F," or "Few," is recorded.

On his forms for December Mr. Flint states that the total annual rainfall for 1897 was 123.43 inches, or the greatest during the eighteen years of his observations.

His station is situated on the western shore of Lake Nicaragua, not far from the eastern end of the western division of the Nicaragua Canal. The volcano Ometepe, on an island in Lake Nicaragua, is about 10 miles northeast of his station. Mr. Flint's records occasionally mention the presence of clouds in the early morning on the summit of this mountain.

Observations at Rivas, Nicaragua, April, 1898.

OBSERVATIONS AT 7 A. M.

Date.	Temperature.		Wind.		Upper clouds.			Lower clouds.			Daily rainfall.
	Air.	Dew-point.	Direction.	Force.	Kind.	Amount.	Direction from.	Kind.	Amount.	Direction from.	
	°	°									
1	76.5	69	ne.	2	cs.	3	sw.	ks.	Few	ne.	0.00
2	76	70	ne.	2	c.	2	nw.	ks.	1	ne.	0.00
3	76	72	ne.	2-4	.....	0	.....	ks.	Few	ne.	0.00
4	77	70	ne.	1	c.	Few	ne.	.....	.....	.....	0.00
5	79	72	ne.	1	.....	0	.....	ks.	8	ne.	0.00
6	77.5	74	ne.	1	cs.	1	ne.	ks.	8	ne.	0.00
7	77	72	ne.	1	c.	2	se.	.....	.....	.....	0.00
8	77	68	ne.	2	cs.	1	se.	ks.	1	ne.	0.00
9	77	70	ne.	2	.....	0	.....	.....	0	.....	0.00
10	77	70	ne.	2	.....	0	.....	ks.	Few*	ne.	0.00
11	78	70	ne.	2	.....	.....	.....	ks.	10	ne.	0.00
12	78	72	ne.	2	.....	.....	.....	ks.	10	ne.	0.00
13	77	71	ne.	1	c; cs.	10	sw.	ks.	Few*	ne.	0.00
14	77	70	ne.	1	c; ck.	8	sw.	.....	0	.....	0.00
15	77	70	ne.	0	.....	0	.....	.....	0	.....	0.00
16	77	70	ne.	1	cs.	10	sw.	ks.	Few*	ne.	0.00
17	77.5	72	ne.	1	c.	1	se.	ks.	Few	ne.	0.00
18	78	72	ne.	1	.....	.....	.....	ks.	2*	ne.	0.00
19	77.5	70	ne.	1	.....	0	.....	.....	0	.....	0.00
20	77.5	71	ne.	2	cs.	Few	sw.	.....	0	.....	0.00
21	78	72	ne.	2	cs.	Thin	se.	ks.	Thin	ne.	0.00
22	77.5	70	ne.	1	cs.	Thin	.....	c.	Few	sw.	0.00
23	77	72	ne.	2	c.	.....	sw.	ks.	6	ne.	0.00
24	78	72	ne.	1	c.	.....	sw.	ks.	Few	ne.	0.00
25	78	71	ne.	1	c.	3	sw.	.....	0	.....	T.†
26	78	71	ne.	2	.....	0	.....	ck.	10	sw.	0.00
27	78	68	ne.	1	.....	0	.....	ck.	5	se.	0.00
28	77.5	70	ne.	1	cs.	.....	sw.	ks.	5	ne.	0.00
29	79	72	ne.	1	.....	0	.....	ks.	1	ne.	0.00
30	79	71	ne.	2	c.	2	sw.	ks.	.....	ne.	0.00
Means	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.00

OBSERVATIONS AT 8 P. M.

Date.	Temperature.		Wind.		Upper clouds.			Lower clouds.		
	Air.	Dew-point.	Direction.	Force.	Kind.	Amount.	Direction from.	Kind.	Amount.	Direction from.
	°	°								
1	79	72	ne.	2	.....	0	.....	ck.	2	ne.
2	80	73	ne.	2	.....	0	.....	.....	0	.....
3	80	73	ne.	1	c.	5	ne	.....	.....	.....
4	80	74	ne.	1	.....	0	.....	ks.	10	ne.
5	79	73	ne.	1	.....	0	.....	ck.	10	ne.
6	80	73	ne.	1	c.	10	.....	.....	0	.....
7	79	73	ne.	1	.....	0	.....	ks.	10	ne.
8	79	72	ne.	2	.....	0	.....	ks.	Few*	ne.
9	79	72	ne.	1	cs.	Few	.....	.....	0	.....
10	80	72	ne.	2	.....	0	.....	.....	0	.....
11	81	73	ne.	1	.....	0	.....	.....	0	.....
12	80	72	ne.	2	.....	0	.....	.....	0	.....
13	81	73	ne.	0	.....	0	.....	.....	0	.....
14	80.5	73	ne.	1	.....	0	.....	.....	0	.....
15	81	73	ne.	2	.....	0	.....	.....	0	.....
16	82	74	ne.	1	.....	0	.....	.....	0	.....
17	80	74	ne.	1	.....	0	.....	.....	0	.....
18	81	74	ne.	1	.....	0	.....	.....	0	.....
19	81	76	ne.	2	.....	0	.....	.....	0	.....
20	81	73	ne.	1	.....	0	.....	.....	0	.....
21	81	74	ne.	2	.....	0	.....	.....	0	.....
22	80	73	ne.	1	.....	0	.....	.....	0	.....
23	80	74	ne.	0	.....	0	.....	.....	0	.....
24	81	74	ne.	1	.....	0	.....	ks.	5	ne.
25	82	72	ne.	1	.....	0	.....	.....	0	.....
26	80	72	ne.	2	c.	10	.....	.....	0	.....
27	80	73	ne.	2	ck	2	se.	.....	0	.....
28	81	73	ne.	2	c.	1	.....	.....	0	.....
29	82	72	ne.	1	c.	2	sw.	.....	0	.....
30	82	75	ne.	1	.....	.....	.....	ck.	10	ne.
Means	80.3	.....	.....	.....	.....	.....	.....	.....	.....	.....

* These clouds are over Ometepe. † Sprinkle 24th, 7:30 p. m.

Observations at Rivas, Nicaragua, May, 1898.

OBSERVATIONS AT 7 A. M.

Date.	Temperature.		Wind.		Upper clouds.			Lower clouds.			Daily rainfall.
	Air.	Dew-point.	Direction.	Force.	Kind.	Amount.	Direction from.	Kind.	Amount.	Direction from.	
	°	°									
1	79	73	ne.	1	.....	.....	.....	ks.	7	ne.	0.00
2	80	73	ne.	2	c.	.....	sw.	ks.	6	ne.	0.00
3	79	75	ne.	2	c.	Few	sw.	ks.	1	ne.	0.00
4	79	72	ne.	2	c.	3	sw.	ks.	1	ne.	0.00
5	79	75	ne.	1	c.	10	s.	.....	0	.....	0.00
6	79	75	ne.	0	.....	0	.....	ks.	10	ne.	0.16
7	80	74	ne.	1	c.	10	sw.	.....	0	.....	0.00
8	81	76	ne.	1	.....	0	.....	ks.	1	ne.	0.00
9	80.5	72	ne.	1	c.	10	sw.	ks.	10	ne.	0.00
10	80	73	ne.	1	.....	0	.....	ks.	Few	ne.	0.00
11	81	76	ne.	1	ck.	5	sw.	ks.	Few	ne,	0.11
12	80	74	ne.	1	c.	9	sw.	ks.	9	ne.	0.00
13	80	73	ne.	2	c.	7	sw.	ks.	Few	ne.	0.00
14	79	72	ne.	1	c.	10	sw.	.....	0	.....	0.00
15	78	74	ne.	0	.....	0	.....	ks.	10	ne.	0.60
16	79	75	ne.	2	ck.	10	sw.	.....	0	.....	0.00
17	78	72	ne.	0	ck.	10	ne.	.....	0	.....	0.00
18	77	74	ne.	0	.....	0	.....	n.	10	ne.	0.20
19	77	74	n.	0	ck.	10	sw.	.....	0	.....	3.15
20	76	73	ne.	0	ck.	10	se.	.....	0	.....	1.30
21	76.5	73	nw.	0	ck.	10	nw.	.....	0	.....	0.00
22	79	72	n.	0	.....	0	.....	n.	10	n.	2.33
23	75	74	n.	0	.....	0	.....	n.	10	se.	4.57
24	76	73	nw.	1	.....	0	.....	n.	10	sw.	0.79
25	77	73	nw.	0	.....	0	.....	n.	10	nw.	0.90
26	76	74	n.	0	.....	0	.....	n.	10	n.	0.20
27	76	73	n.	0	c.	2	.....	ks.	2	sw.	0.00
28	77	74	se.	0	ck.	3	se.	.....	0	.....	1.07
29	77	74	se.	0	c.	4	se.	.....	0	.....	0.00
30	78	75	se.	0	ck.	10	se.	.....	0	.....	0.79
31	78	74	e.	0	.....	0	.....	ks.	10	e.	0.00
Means	78	.....	.....	.....	.....	.....	.....	.....	.....	.....	16.17

OBSERVATIONS AT 8 P. M.

Date.	Temperature.		Wind.		Upper clouds.			Lower clouds.		
	Air.	Dew-point.	Direction.	Force.	Kind.	Amount.	Direction from.	Kind.	Amount.	Direction from.
	°	°								
1	82	75	ne.	2	c.	1	se.	.....	.....	.....
2	82	74	ne.	1	ck.	Few	ne.	.....	.....	.....
3	83	75	ne.	1	c.	10	se.	.....	.....	.....
4	81	74	ne.	2	c.	10	.....	.....	.....	.....
5	81	76	ne.	1	c.	10	.....	.....	.....	.....
6	83	76	ne.	2	c.	5	se.	.....	.....	.....
7	85	78	ne.	1	c.	2	ne.	.....	.....	.....
8	85	78	ne.	1	.....	0	.....	.....	.....	.....
9	84	76	ne.	0	.....	0	.....	.....	.....	.....
10	82	75	ne.	1	c.	5	.....	.....	.....	.....
11	80	76	ne.	2	ck.	2	.....	.....	.....	.....
12	84	76	ne.	2	.....	0	.....	.....	.....	.....
13	82	74	ne.	2	.....	0	.....	.....	.....	.....
14	82	75	ne.	0	c.	10	ne.	.....	.....	.....
15	79	75	ne.	3	.....	.....	.....	ks.	10	ne.
16	80	73	ne.	0	ck.	Few	ne.	.....	.....	.....
17	82	75	ne.	0	.....	.....	.....	ks.	10	.....
18	81	76	ne.	1	.....	.....	.....	ks.	3	ne.
19	78	75	nw.	0	ck.	10	.....	.....	.....	.....
20	77	73	ne.	0	.....	.....	.....	ks.	10	.....
21	77	74	nw.	1	.....	.....	.....	ks.	10	nw.
22	75	74	n.	0	.....	.....	.....	ks.	10	n.
23	76	73	nw.	1	.....	.....	.....	n.	10	nw.
24	77	73	nw.	2	.....	.....	.....	ks.	7	nw.
25	77	73	nw.	0	.....	.....	.....	ks.	8	nw.
26	78	75	nw.	1	.....	.....	.....	ks.	9	nw.
27	79	76	sw.	1	c.	10	sw.	.....	.....	.....
28	78	75	se.	0	c.	10	.....	.....	.....	.....
29	78.5	75	se.	0	ck.	6	se.	.....	.....	.....
30	78	77	se.	0	.....	.....	.....	n.	10	se.
31	82	75	e.	2	ck.	Few	e.	.....	.....	.....
Means	80	.....	.....	.....	.....	.....	.....	.....	.....	.....

A note by Mr. Flint, in connection with this report, says:

Again I repeat my suspicion of August 7 that my barometer has fallen slightly; it is simply a cup with tube inserted, surrounded with loose cotton to prevent dust, and is only reliable for range of pressure; the variation has seldom exceeded 0.1 inch.

In a previous paper May 19, 1896, Mr. Flint had stated:

I made my barometer myself; purified the mercury, heated it and the tube; worked the air bubbles out with a wire; placed the tube in a grooved slot; kept it in the sun for some days; capped the end when

the mercury completely filled it; placed a cup over the cap and inverted the tube and placed it in a permanent position; it is observed for monthly maximum and minimum and monthly range. Made several trips to the ocean steamers, comparing the mean range with first-class aneroid. Mr. Chamberlain, at the same time, leveled over the railroad to my office; resulting altitude 99 feet, and adding 3 for the height of the cistern gives 102 feet above the level of the lake. The latter level varies; the canal company assigns 105 feet, but they measured in the dry season; 210 feet is the approximate altitude of my barometer cistern above sea level. On the 18th of May, 1896, the lake was 8.5 feet below the high water of 1895. I formerly used 200 feet as the altitude, but will adopt your correction and, thereby, obtain the sea-level pressure of 29.80 for May 19, 1896. The local pressure on May 16 was exactly normal, according to my scale; for the first fourteen days of the month it was below normal and unusual. In April it was above normal. The range during the month rarely exceeds 0.11. My former observations were made at Granada and were sent to the Smithsonian Institution. The barometer at Granada College is about 180 feet above sea level, but the reported readings are not corrected for this. Until lately I was the only one who measured rainfall in this region.

OBSERVATIONS AT HONOLULU, REPUBLIC OF HAWAII.

Through the kind cooperation of Mr. Curtis J. Lyons, Meteorologist to the Government Survey, a copy of the daily record at Honolulu is communicated to the Weather Bureau in advance of its official publication, and is herewith printed, as a special contribution, for the convenience of those who are studying the relations of the storms and weather of the United States to those of adjacent countries, with a view to long-range, seasonal predictions.

Meteorological observations at Honolulu, Republic of Hawaii.

MAY, 1898.

May, 1898.	Pressure at sea level.			Temperature.					Relative humidity.			Wind.*		Cloudiness.	Rain measured at 6 a. m.
	7 a. m.	3 p. m.	9 p. m.	6 a. m.	2 p. m.	9 p. m.	Maximum.	Minimum.	7 a. m.	2 p. m.	9 p. m.	Direction.	Force.		
1	30.04	30.00	30.07	64	77	70	81	63	78	65	77	nne.	2	4	0.00
2	30.09	30.04	30.12	67	76	70	79	65	73	66	82	nne.	3	2-5	0.00
3	30.11	30.04	30.12	70	78	73	79	68	80	63	74	ene.	4	7	0.08
4	30.10	30.03	30.09	72	77	73	79	71	70	63	74	ene.	3	9	0.02
5	30.05	30.02	30.10	72	77	72	78	71	74	61	77	ene.	4	9-6	0.01
6	30.06	30.03	30.10	71	78	73	79	69	82	59	70	ene-ne.	2-4	9-3	0.11
7	30.11	30.07	30.15	73	78	71	79	71	74	63	77	ne.	4	4	0.01
8	30.11	30.05	30.10	70	78	72	79	69	....	53	69	nne.	3	3	0.03
9	30.08	30.02	30.08	70	75	73	78	68	81	70	68	ne.	4	5	0.02
10	30.08	30.00	30.10	71	77	72	80	70	70	56	73	nne.	4	3-1	0.07
11	30.12	30.07	30.14	70	76	73	78	68	73	60	70	ne.	4	4	0.03
12	30.19	30.15	20.19	71	77	72	79	70	81	60	69	ne.	4	3-7	0.03
13	30.15	30.07	30.12	71	77	71	79	69	....	56	69	ne.	4-5	3-1	0.00
14	30.08	30.00	30.06	70	78	70	79	69	....	53	73	ne.	3-0	3-1	0.00
15	30.02	30.00	30.08	67	78	71	79	63	....	56	77	ne-n.	3	5-3	0.06
16	30.10	30.08	30.15	70	77	73	78	68	....	63	74	ne.	3	8-3	0.20
17	30.16	30.16	30.22	71	76	74	77	71	73	68	74	ene.	3-5	10	0.24
18	30.11	30.08	30.13	72	77	74	79	72	73	63	76	nne-n.	6-4	9	0.01
19	30.13	30.11	30.15	72	77	73	77	72	67	63	74	ene.	4-5	10-5	0.00
20	30.15	30.13	30.19	71	75	73	79	68	72	68	74	nne.	3-4	8-10	0.02
21	30.17	30.16	30.21	71	75	73	77	71	66	66	67	ene.	3-4	7-10	0.00
22	30.11	30.10	30.14	71	78	73	79	70	66	58	69	ne.	3-2	5-10	0.00
23	30.11	30.06	30.13	69	79	72	81	68	67	53	77	ne.	1	1	0.00
24	30.10	30.05	30.13	71	79	73	81	69	74	58	74	ne.	2	5	0.00
25	30.12	30.09	30.15	68	77	72	80	67	86	67	80	ne.	3	6	0.08
26	30.15	30.10	30.15	69	76	74	80	68	77	70	77	ne.	3	5	0.12
27	30.14	30.06	30.13	71	79	74	81	67	70	60	74	ne.	3	3-5	0.00
28	30.12	30.09	30.15	70	79	74	80	69	80	60	70	ne.	3	5	0.06
29	30.15	30.13	30.18	71	79	74	80	70	86	60	74	ne.	4	5	0.04
30	30.16	30.13	30.16	72	79	74	90	70	77	64	74	ne.	4	6	0.07
31	30.15	30.04	30.07	72	78	73	80	70	70	64	75	ne.	3	5	0.04
	30.11	30.07	30.13	70.6	77.3	72.5	79.2	68.8	....	61.6	73.6	.....	.....	.....	1.35

The station is at 21° 18′ N., 157° 50′ W.; altitude 50 feet.

Pressure is corrected for temperature and reduced to sea level, but the gravity correction, —0.06, is still to be applied.

The average direction and force of the wind and the average cloudiness for the whole day are given unless they have varied more than usual, in which case the extremes are given. The scale of wind force is 0 to 10. Two directions of wind, or values of wind force, connected by a dash, indicate change from one to the other.

The rainfall for twenty-four hours is given as measured at 6 a. m. on the respective dates.

* Average wind for the day.

This record for May is signed by Emma C. Lyons.

OBSERVATIONS AT PORT AU PRINCE, HAITI.

Through the kind cooperation of Prof. T. Scherer of Port au Prince, Haiti, the meteorological observations taken by him at 7 a. m., local time, or 11:49 a. m., Greenwich time, are communicated in manuscript for early publication in the MONTHLY WEATHER REVIEW. By entering these on the monthly and annual charts, published by the Weather Bureau, we obtain an important extension southeastward of our field of study. The observations are taken $1^h\ 11^m$ earlier than those of the Weather Bureau telegraph system. The original reports are in metric measures; the conversions are by the Editor.

The barometer is 119 feet above sea level; its readings have been corrected by Professor Scherer for temperature and elevation, but not for gravity, this latter correction is —0.064 inch; the thermometers are 6.7 feet above ground; the rain gauge, 7.2 feet above ground. The wind velocity is given in miles per hour.

The position of Port au Prince, Haiti, is latitude 18° 34′ N., longitude 72° 21′ W., or $4^h\ 49^m$ west of Greenwich. Additional records for this station are published in the annual volume of the Central Meteorological Institute at Vienna.

Observations at Port au Prince, Haiti.

MAY, 1898.

Date.	Barometer reduced.	Temperature.		Rel. humidity.	Wind.		Clouds.			Preceding 24 hours.		
		Air.	Dew-point.		Direction.	Velocity.	Kind.	Amount.	Direction.	Total rain.	Temperature. Max.	Temperature. Min.
	Inches	°	°	%						Inch.	°	°
1	30.05	77.2	68.4	76	e.	7	k	9	.....	0.26	89.8	71.8
2	30.04	78.4	66.0	67	ese.	7	.....	0	.....	0.12	90.5	70.0
3	30.04	76.5	67.5	75	.....	0	k	1	wsw.	0.00	91.8	70.9
4	30.01	77.0	68.2	76	e.	4	s	1	e.	0.00	91.0	72.7
5	30.02	77.0	68.2	76	e.	2	....	0	.....	0.00	90.0	72.3
6	30.04	77.0	63.5	65	e.	11	.....	0	.....	0.25	90.5	70.3
7	30.02	76.1	65.8	72	e.	7	.....	0	.....	0.00	91.4	68.5
8	29.98	77.9	69.3	76	e.	2	ck	1	.....	0.00	93.2	71.1
9	29.96	81.3	69.4	69	ese.	11	s	2	e.	0.00	93.6	75.0
10	30.00	80.6	70.9	74	e.	11	cs	1	.....	0.00	94.5	75.2
11	30.02	79.3	67.3	68	e.	7	s	1	.....	0.00	93.6	71.6
12	30.00	80.6	64.0	59	e.	11	sk	1	sw.	0.00	94.6	75.2
13	30.00	79.9	59.9	52	e.	9	.....	0	.....	2.34	96.4	74.8
14	29.94	79.0	70.9	78	ese.	7	.....	1	.....	0.15	92.1	73.0
15	30.03	79.2	69.1	72	e.	7	.....	0	.....	0.02	90.3	71.8
16	30.10	78.1	67.1	70	e.	2	ck	4	.....	0.38	92.8	71.4
17	30.08	74.3	66.9	79	e.	2	c	10	w.	1.12	91.6	68.7
18	30.03	74.1	71.8	93	.....	0	ck; k	9	w.	0.00	88.2	70.7
19	30.04	76.5	70.2	82	e.	4	ck	7	.....	0.00	91.4	72.1
20	30.05	77.9	63.3	62	e.	4	.....	0	.....	1.15	91.9	69.8
21	30.06	77.4	68.2	74	se.	9	.....	0	.....	0.27	88.3	68.2
22	30.01	75.9	67.5	76	.....	0	cs	7	w.	0.66	91.2	69.6
23	29.95	77.0	72.5	87	e	7	c	10	w.	0.92	86.7	71.2
24	29.91	75.7	72.1	89	se.	2	ck	7	w	0.00	84.4	71.4
25	29.93	75.6	73.9	95	.....	0	n	10	.....	0.63	80.2	74.1
26	29.87	73.4	72.5	97	.....	0	n	10	s.	0.59	84.7	72.1
27	29.92	75.9	74.8	96	.....	0	n	10	.....	0.00	88.3	73.2
28	30.00	78.1	74.8	90	ene.	4	k	6	nnw. ssw.	1.70	91.2	74.3
29	30.04	78.1	74.3	89	.....	0	s	1	.....	0.00	91.4	73.6
30	30.04	76.6	76.1	98	ese.	2	k	1	.....	0.17	91.6	73.6
31	29.98	77.0	73.8	90	.....	0	ck	4	wnw.	1.19	91.0	72.1
Sum	.....	.....	.....	.....	.....	.....	.....	.....	.....	11.90	.....	.....
Means.	30.00	77.4	69.3	78.1	.....	4.0	.....	3.7	.....	.....	90.6	71.9

n = nimbus.