

Meteorological observations at Honolulu, April, 1900.

Date.	Pressure at sea level.		Temperature.		During twenty-four hours preceding 1 p. m. Greenwich time, or 2:30 a. m., Honolulu time.						Total rainfall at 9 a. m., local time.		
	Dry bulb.	Wet bulb.	Temperature.		Means.	Wind.		Average cloud-ness.	Sea-level pressures.				
			Maximum.	Minimum.		Prevailing direction.	Force.		Maximum.	Minimum.			
1.....	30.00	70	+	80	62	57.7	65	+	3-0	30.05	29.95	0.00	
2.....	30.01	72	62.5	80	65	61.7	67	e. ne.	3-0	30.07	29.97	0.00	
3.....	30.05	69	68.5	82	67	65.5	71	e.	3-0	30.11	30.02	0.00	
4.....	30.04	68	65.5	82	69	66.5	75	sw.	3-10	30.12	30.03	0.00	
5.....	30.05	72	68.5	83	68	65.3	72	sw-e.	3-3	30.11	30.02	0.00	
6.....	30.07	73	67	83	67	63.5	65	e-ne.	3-3	30.12	30.03	0.00	
7.....	30.05	73	67	83	67	64.0	70	e-ne-ne.	3-5	30.15	30.01	0.10	
8.....	30.09	70	65	82	72	62.5	63	ne.	3-3	30.09	29.99	0.01	
9.....	30.06	68	66	82	70	61.5	64	ne.	3-5	30.00	29.90	0.13	
10.....	30.05	67	66	78	66	63.3	73	ne.	3-5	30.00	29.90	0.42	
11.....	30.09	70	66.5	78	66	63.9	67	e. ne.	4-4	30.05	29.95	0.60	
12.....	30.00	73	67	79	69	65.5	75	ne.	4-5	30.06	29.97	0.11	
13.....	30.09	73	67	80	70	65.0	71	ne.	3-3	30.05	29.96	0.16	
14.....	30.06	68	65	81	73	63.7	65	e. ne.	4-4	30.03	29.95	0.00	
15.....	30.06	70	66.5	83	68	63.3	67	ne.	4-4	30.02	29.92	0.05	
16.....	30.01	68	64.5	81	69	64.0	67	ne.	2-2	30.05	29.97	1.33	
17.....	30.00	69	65.5	74	68	59.0	69	ne.	4-3	30.04	29.98	0.00	
18.....	30.07	64	62	73	67	55.3	60	ne.	4-3	30.06	29.94	0.25	
19.....	30.05	66	62	74	62	58.0	68	ne.	4-4	30.01	29.94	0.26	
20.....	30.06	71	64	75	63	61.7	76	ne.	4-4	30.00	29.93	0.08	
21.....	30.05	70	65	78	68	62.0	69	ne.	4-4	30.02	29.93	0.09	
22.....	30.06	71	66.5	79	67	63.5	72	ne.	3-3	30.02	29.93	0.19	
23.....	30.06	71	66.5	79	67	65.0	73	ne.	3-3	30.02	29.95	0.32	
24.....	30.07	69	65	80	69	66.0	76	ne.	3-3	30.08	29.97	0.13	
25.....	30.07	66	65.5	79	68	65.7	76	ne.	3-3	30.04	29.95	0.82	
26.....	30.07	66	64.5	80	68	65.5	84	sw-w-ne	1-5	30.01	29.92	0.39	
27.....	30.04	68	66	81	64	66.0	81	sw-w-ne	0-2	30.02	29.91	0.01	
28.....	30.00	65	61	65	66.5	66.5	80	sw-w-ne	0-2	30.01	29.97	0.00	
29.....	29.95	63	61	79	64	64.3	76	n-s-w.	0-2	30.00	29.89	0.00	
30.....	29.98	64	60	78	61	59.5	69	sw-ne.	1	30.02	29.94	0.00	
Sums.....												5.23	
Means.....	29.982	68.9	65.0	79.4	67.0	63.3	71.7		2.7	4.8	30.044	29.943	
Departure.....	-0.20					0.0	0.0			-0.3			+2.24

Mean temperature for April, 1900 (6+2+9)+3=72.8; normal is 72.8. Mean pressure for April (9+3)+2 is 29.988; normal is 30.018.
 *This pressure is as recorded at 1 p. m., Greenwich time. †These temperatures are observed at 6 a. m., local, or 7:30 p. m., Greenwich time. ‡These values are the means of (6+9+2+9)+4. §Beaufort scale. ¶13-10-0. ¶¶1-0-10.

MEXICAN CLIMATOLOGICAL DATA.

Through the kind cooperation of Señor Manuel E. Pastrana, Director of the Central Meteorologic-Magnetic Observatory, the monthly summaries of Mexican data are now communicated in manuscript, in advance of their publication in the Boletín 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 April, 1900.

Stations.	Altitude.		Temperature.			Relative humidity.	Precipitation.	Prevailing direction.	
	Feet.	Inch.	Max.	Min.	Mean.			Wind.	Cloud.
Arteaga (Coahuila) ..			87.8	50.0	70.7				
Cullacón Rosales (Sinaloa).....	112	29.72	90.5	62.6	75.4	47		w.	
Durango (Seminario) ..	6,243	23.98	84.2	42.8	60.6	35		sw.	w.
Gral Zepeda (Coahuila).....			100.4	41.0	71.8				
Guanajuato.....	6,640	23.66	88.5	48.2	67.6	38	0.14	ws.	sw.
Leon (Guanajuato).....	5,034	24.24	89.2	44.2	67.3	37	T.	w.	w.
Mazatlan.....	25	29.91	81.0	61.3	72.7	71		nw.	sw., w.
Merida.....	50	29.89	101.3	59.0	84.4	63	2.36	se.	se.
Mexico (Obs. Cent.).....	7,472	23.01	86.0	46.4	64.8	42	0.79	sw.	sw.
Morelia (Seminario).....	6,401	23.94	84.0	45.3	64.0	44	0.24	s.	w.
Parras (Coahuila).....	3,986		88.7	49.1	73.0				
Puebla (Col. Cat.).....	7,112	23.35	84.2	48.6	67.8	48	0.02	ese, sw.	sw.
Puebla (Col. d. Est.).....	7,118	23.30	84.9	47.8	66.6	45	0.20	nne.	sw.
Saltillo (Col. S. Juan).....	5,399	24.66	84.7	38.8	65.1	55	T.	s.	sw.
San Isidro (Hac. de Guanajuato).....			78.4	59.9			0.20	w.	
Silao.....	6,063	24.22	84.9	54.9	68.9	44	0.03	ws.	w.
Tuxtla (Gutiérrez Chiapas).....	1,864	28.13	100.4	55.4	77.2	68		nnw.	ese.

THE DROUGHT OF 1899 IN SOUTHWEST MISSOURI.

By Mr. J. S. HAZEN, Observer, Springfield, Mo.

The three months of dry weather, accompanied by long continued high temperature at Springfield, Mo., during the summer of 1899, proved a serious matter to nearly all classes of business, and a fruitful topic of discussion, in a climatological sense.

The fact of the drought being to some extent local, did not lessen the annoyance nor abate the suffering and loss to this community. The ground became dry to a depth of 4 feet, while for weeks at a time the country roads were almost impassable because of the dust. The corn crop was practically a failure; late fruits and garden truck nearly so, while the damage to lawns, meadows, pastures, and forest and fruit trees was severe. Numbers of trees died, many more shed their leaves prematurely with the probability that they may never recover their full vitality.

The accompanying numerical tables giving departures from normal conditions, for the years 1897 and 1899, show a remarkable similarity in many respects. Much of the rain which fell earlier in the season, in both years, occurred in heavy showers, and as a consequence a large amount of what might, with light or ordinary rains, have been surplus moisture, was lost to the soil before it could be absorbed. Many people claimed that the soil actually contained less moisture, and that the effect of the drought on vegetation was more noticeable in 1897 than was the case during the summer of 1899. Whether such a statement is true or not, I can not say, but the records of this office show that more rain fell during July and August, 1897, than during the same period for 1899. From August 14 to September 16, 1899, the rainfall was only 0.38 inch and only about three-fourths of an inch fell from July 30 to September 16, inclusive. When the fact is taken into consideration that no rainfall between June 15 and September 17, wet the soil more than 2 inches below the surface, we can more nearly appreciate the severity of the drought. In addition to the light rainfall the past summer was characterized by an excess of temperature, an abnormal amount of sunshine, and a high average wind velocity.

During the last ten days of August and the first ten days of September, 1899, the daily average excess in temperature was nearly 10°, while the total excess in daily temperatures from March 1 to October 10 was over 700°. There were but two days during August on which the temperature fell below normal.

During August and September, 1897, there was a longer period of continuous dry weather than was recorded during 1899. From August 21 to September 16, 1897, only 0.10 of an inch of rain fell, and during the entire month of September only 0.37 inch fell. The drought also extended well through October.

During July, August, and September, 1899, comparatively few upper clouds were observed, and from the middle of August until the middle of September, practically none were seen. During the summer of 1898, which was a year of abnormally heavy rainfall, upper clouds predominated, and but comparatively few distinctive cumulus clouds were recorded. During July, August, and September, 1899, an unusually large amount of the distinctive cumulus or fair weather type of clouds was observed. Cumulus clouds varying from a few to four-tenths were observed on twenty-one days during August. During the second week in September there was a period of six days on which no clouds were observed, and, as compared with the previous week, the temperature had fallen about 10°.

During the latter part of August and the first of September the change in the character of the clouds was gradual, but well marked. The cumulus type gradually took on a strato-