MONTHLY METEOROLOGICAL REGISTER AT H. M. MAGNETICAL OBSERVATORY, TORONTO, C. W.—JULY, 1846.

Latitude 43°. 39′.4. *N.* *Longitude* 79°. 21′.5. *W.* *Elevation above Lake Ontario,* 108 *Feet.*

Day.	Barometer at Temp. of 32°. 7 A.M.	3 P.M.	10 P.M.	Mean.	Temperature of the Air. 7 A.M.	3 P.M.	10 P.M.	Mean	Tension of Vapour. 7 A.M.	3 P.M.	10 P.M.	Mean	Humidity of the Air. 7 A.M.	3 P.M.	10 P.M.	Mean	Wind. 7 A.M.	3 P.M.	10 P.M.	Rain inch on surf.	Weather.
1,	29.487	29.459	29.486	29.5001	73.2°	75.7°	66.3°	70.82	.603	.620	.587	.601	.76	.72	.93	.82	N.E. by E.	E. by S.	Calm.	—	Mostly clear. Detached clouds. Slight showers at 4h 50m pm.
2,	29.628	29.642	29.672	29.6541	67.6	75.5	61.2	67.22	.507	.606	.480	.516	.78	.71	.91	.80	N.	S.	Calm.	0.010	M'tly clear. Hazy. Aur. Pt N. 1 & 2 am
3,	29.745	29.642	29.606	29.6323	67.2	75.0	58.4	65.62	.552	.462	.422	.451	.86	.55	.88	.74	E. by S.	E. S. E.	Calm.	—	Zenith clear. Hazy round hor. Fair.
4,	29.541	29.427	29.439	29.4394	66.7	75.8	67.2	70.26	.527	.619	.532	.579	.83	.72	.82	.80	Calm.	E. by S.	Calm.	—	Mostly cl'r. A few detached cl'ds. Fine
5,	29.270	29.247	—	—	76.3	85.0	—	—	.705	.491	—	—	.80	.42	—	—	S. by E.	NW. by W.	—	—	Cloudy. Clear intervals.
6,	29.435	29.433	29.474	29.4626	68.0	80.6	67.5	70.18	.558	.408	.402	.433	.84	.41	.61	.63	N. W.	N. N. W.	N.N.W.	—	Detached clouds. Halo r'nd sun at 10 am
7,	29.585	29.568	29.587	29.5790	64.4	77.0	65.0	67.21	.443	.280	.331	.345	.75	.30	.55	.55	Calm.	N. N. W.	Calm.	—	Mtly clr. Hazy. Wind in sud. gusts 3 pm
8,	29.558	29.483	29.492	29.5059	64.5	79.0	66.0	69.05	.432	.629	.504	.538	.73	.65	.81	.78	W.	S. by W.	Calm.	0.950	Cl'd to 4 pm. Slt r'n 6h to 7h 30m am.
9,	29.522	29.496	29.446	29.4907	70.5	75 0	70.2	73.14	.544	.669	.650	.645	.75	.79	.90	.82	Calm.	Calm.	S.S.W.	—	M'tly cl'd. Rg. 11h 45m am to 1h 20m pm
10,	29.495	29.457	29.547	29.4942	80.5	90.6	70.4	78.82	.763	.872	.618	.701	.75	.63	.85	.74	W. S. W.	Calm.	Calm.	0.160	*Th. no. to 1 pm. Heavy r'n&h'lst. ac. it.
11,	29.482	29.445	29.450	29.4752	76.1	76.2	74.0	73.18	.762	.709	.689	.659	.87	.81	.85	.82	S. W.	S.W. by S.	W. N. W.	0.210	Sud. sq. wind at 0h 45m. Pres. 11 lbs. Th, P'tn'g, & r'n 1 to 5 pm. Th. 7 to 8 pm
12,	29.497	29.473	—	—	73.8	80.0	—	—	.583	.588	—	—	.72	.59	—	—	W.N.W.	N. W.	—	not ap	Cloudy.
13,	29.603	29.510	29.502	29.5314	60.0	77.2	61.7	64.06	.483	.573	.477	.466	.96	.64	.89	.78	N. W.	W. by N.	Calm.	—	Generally clear. Thunderst. 7 to 8 pm.
14,	29.614	29.666	29.721	29.6988	56.2	64.1	53 2	56.47	.415	.389	.302	.327	.94	.67	.75	.74	N. N. W.	N. W.	N.W. by W	0 035	Mostly clear. Fine.
15,	29.831	29.838	29.887	29.8647	54.3	61.6	57.3	57.55	.323	.367	.402	.355	.78	.68	.88	.77	N.W.	N. by E.	Calm.	—	Partially clouded. Auroral light 0 am.
16,	29.945	29.945	29.946	29.9536	60.0	68.4	52.0	58.44	.448	.347	.322	.341	.88	.52	.84	.72	Calm.	S.S.W.	Calm.	—	Detached clouds. Mostly clear. Fine.
17,	30.027	29.947	29.921	29.9441	59.2	70.2	55.6	61.87	.360	.381	.329	.368	.74	.54	.76	.69	Calm.	S. E.	N.E. by N.	—	Detached clouds. Mostly clear. Fine.
18,	29.921	29.858	29.842	29.7946	64.0	74.5	59.0	66.84	.466	.465	.434	.468	.80	.56	.88	.74	Calm.	E.	Calm.	—	Cl'r am & fr. 9 pm. Det. c'lds no. to 4 pm
19,	29.778	29.650	—	—	72.2	75.6	—	—	.527	.439	—	—	.69	.51	—	—	E. S. E.	E.	—	—	Clear and unclouded. Very fine.
20,	29.582	29.538	29.561	29.5642	70.2	78.9	62.8	68.94	.583	.594	.493	.546	.81	.61	.88	.80	Calm.	S. E. by S.	Calm.	—	Generally clear am. Clear from 9 pm.
21,	29.612	29.581	29.589	29.5884	69.6	74.9	67.6	69.90	.604	.557	.534	.543	.86	.66	.82	.77	Calm.	E.	Calm.	—	Passing clouds. Aur. light 0 am.
22,	29.597	29.537	29.508	29.5274	66.4	76.2	61.6	66.12	.568	.598	.492	.523	.90	.68	.92	.84	Calm.	S. E.	Calm.	—	Generally overcast.
23,	29.501	29.406	29.362	29.3905	66.4	79.0	68.4	72.11	.543	.533	.552	.553	.86	.55	.82	.73	Calm.	Calm.	Calm.	—	Quite cl'r to 8 am. Rem. part. clouded.
24,	29.310	29.319	29.460	29.3992	67.4	71.8	67.6	66.49	.593	.607	.576	.562	.91	.80	.88	.89	Calm.	N.N.W.	N.W. by N.	0.490	Raining fr. 4 am to 1h 50m pm. Auroral light 9 to 11 pm.
25,	29.608	29.643	29.678	29.6665	68.4	79.3	70.5	71.44	.501	.595	.437	.507	.74	.61	.60	.69	N. N. W.	W. N. W.	Calm.	0.450	Clear to 9 am. Remainder clouded.
26,	29.727	29.745	—	—	70.2	73.2	—	—	.547	.540	—	—	.69	.68	—	—	Calm.	Calm.	—	—	Unclouded. Hazy. Very fine.
27,	29.793	29.750	29.707	29.7291	69.0	75.9	58.6	66.68	.574	.431	.383	.444	.84	.50	.79	.71	N.E. by E.	E S.E.	Calm.	—	Unclouded. Hazy. Very fine.
28,	29.644	29.544	29.515	29.5492	66.5	76.2	65.6	69.83	.523	.602	.577	.581	.83	.68	.94	.83	N. E.	S.E. by S.	Calm.	—	Part. cl'd. Sheet l'tning 10 & 11 pm.
29,	29.446	29.403	29.373	29.3850	74.4	81.6	74.8	75.88	.725	.755	.759	.731	.88	.73	.91	.85	Calm.	S. by W.	S. by W.	not ap	Thunder, lightning, & rain most of day.
30,	29.322	29.296	29.398	29.3615	75.7	85.4	72.5	75.38	.792	.699	.558	.649	.92	.59	.72	.76	S. S. W.	W. S. W.	N.W.	1.490	Ceased r'ng 0h 30m am. Day m'tly cl'd.
31,	29.546	29.588	29.635	29.6063	66.0	77.8	64.0	68.39	.501	.432	.434	.450	.80	.47	.75	.68	Calm.	N. by E.	N. by W.	—	Cl'd to 9 am. Par. cl'd to 6 pm. Rem. cl'r
Mean	29.6067	29.5711	29.5853	29.5847	67.13	76.05	64.41	68 22	.544	.548	.492	.514	.83	.62	.82	.76				2.895	*10th, noon—Thermometer stood at 94 deg. I pm had fallen to 77 deg. 6 min.

Highest Barometer, 30,027 at 7 a.m. on 17th.
Lowest do. 29,258 at 11 a.m. on 24th. } Range 0.769
Highest Temperature, 94°.6 on 10th, p.m.
Lowest do. .. 44°.5 on 17th, a.m. } Range 50.1
Mean Daily Range, .. 20°.85
Extreme Daily Range, 33°.1 from 13th, pm, to 14th, am.

Proportion of Wind from each Quarter--

N.W.	157	Total.			
S.W.	81	Winds,	369		
S.E.	93	Calms,	279		
N.E.	38		—		

Mean force, 0.29 lbs; Max. force, 11 lbs, noon to 1 p.m., and at 6 p.m. on the 10th. } Obser., 648

Temperature for July.

Year.	Mean.	Max.	Min.	Range.
1840,	66.3°	82.3°	47.0°	35.3°
1841,	65.5	89.0	39.9	49.1
1842,	64.7	91.0	42.5	48.5
1843,	64.58	86.8	38.7	48.1
1844,	66.08	86.6	40.1	46.5
1845,	66.74	95.0	45.7	49.3
1846,	68.22	91.6	44.5	50.1

Rain. No. Days.	Rain. Inches.	Wind. No. Winds.	Wind. Calms	Wind. Mean force lbs.
6	5.270			
10	8.150	194	130	0.27
4	3.050	388	236	.33
8	4.605	358	266	.44
12	2.815	269	379	.19
7	2.195	328	320	.30
10	2.895	369	279	.29

Under the head of Tension of Vapour, is given the elastic force of the Aqueous Vapour in the Atmosphere at each Observation, in decimals of an inch of Mercury, or the proportion of the Barometric pressure due to its presence.
Under the head of Humidity of the Air, is given the proportion the Aqueous Vapour bears to the quantity the air is capable of sustaining at the existing temperature, saturation being represented by 1.00.
The Instruments are Standard Instruments. The Rain Gauge is 27 feet above the soil.—The Means entered are the Means by 24 hourly Observations, from 6, a.m., to 6, a.m.
The quantity of Rain or Snow received each 24 hours, is noted at 9, a.m.
The Observations entered in the column for 7 a.m., on Sundays, are actually taken at 9 a.m. The two Observations taken on Sundays are not included in any of the means.