

MONTHLY METEOROLOGICAL REGISTER AT H. M. MAGNETICAL OBSERVATORY, TORONTO, C. W.—OCTOBER, 1845.  
 Latitude 43°. 39' 4". N. Longitude 79°. 21' 5". W. Elevation above Lake Ontario, 108 Feet.

DAY.	Barometer at Temp. of 32°.			Tension of Vapour.			Temperature of the Air.			Humidity of the Air.			Wind.			Rain or Snow.	WEATHER.					
	7 A.M.	10 P.M.	Mean.	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.	7 A.M.	3 P.M.	10 P.M.							
1.	29.313	29.371	29.549	29.4524	3.40	4.26	2.60	3.06	52.3	57.0	44.5	50.81	.88	.89	.90	.84	W.	W.	Calm.	0.170	Cloudy a.m. Slight rain 4 p.m.	
2.	.698	.647	.641	.6647	.301	.424	.341	.383	49.0	59.0	51.7	55.35	.89	.87	.82	.84	S.W.	S.	Calm.	—	Clear a.m. Clouded p.m.	
3.	.753	.866	.872	.8438	.357	.360	.361	.319	54.5	56.4	51.8	53.38	.86	.81	.96	.68	N.N.W.	S.E.	Calm.	—	Clouded all day. Rain 7 to 8 a.m.	
4.	.804	.596	.466	.7304	.330	.426	.369	.337	49.6	58.2	51.2	48.39	.94	.93	1.00	.94	N.N.E.	E. by N.	Calm.	.240	Clouded a.m. Clear p.m.	
5.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N. by E.	S.S.E.	Calm.	.050	Showery, clouded, & clear alterly.
6.	.944	.890	.879	.8888	.182	.235	.203	.200	37.3	50.0	36.6	43.18	.82	.66	.95	.79	Calm.	Calm.	Calm.	.080	Generally clear.	
7.	.816	.766	.753	.7728	.228	.345	.365	.355	33.0	39.6	54.2	50.0	.94	.84	1.00	.91	Calm.	E. by N.	Calm.	—	Clouded genly. Slight rain 8 to 9	
8.	.774	.621	.426	.5617	.335	.406	—	.400	49.1	55.0	55.6	55.48	.98	.96	.93	.93	Calm.	E. by N.	Calm.	—	Clouded all day. Rain all aftern.	
9.	.414	.559	.604	.5522	.338	.406	.374	.389	58.0	63.3	52.8	55.96	.72	.96	.88	.88	Calm.	W.N.W.	Calm.	.720	Clear a.m. Clouded p.m.	
10.	.571	.450	.379	.4455	.393	.413	.462	.420	53.4	59.0	59.4	57.65	.98	.84	.93	.90	E.N.E.	E.	Calm.	—	Clouded all day.	
11.	.450	.459	.355	.4768	.403	.400	.316	.336	56.3	55.6	51.3	49.92	.91	.92	.84	.91	N.N.W.	E.	Calm.	—	Clouded all day.	
12.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	S.S.W.	S.S.W.	Calm.	.470	Clouded all day. Rain 7 to 11 p.m.
13.	.726	.757	.745	.7389	.210	.285	.255	.278	38.1	53.5	52.5	50.58	.93	.71	.73	.76	Calm.	W.	Calm.	—	Clouded all day. Showery (p.m.)	
14.	.784	.894	.951	.9070	.280	.155	.166	.191	47.2	46.8	39.8	41.86	.88	.49	.69	.69	W.N.W.	W.	Calm.	.050	Cloudy clear. Wind brisk to fresh	
15.	30.048	30.085	30.137	30.1085	1.149	1.118	1.134	1.147	149	28.1	40.8	34.83	.96	.51	.85	.74	Calm.	N.W.	Calm.	—	Clouded a.m. clear p.m. rain 6 to 7 a.m.	
16.	30.189	30.074	30.036	30.0824	1.59	1.282	1.36	1.58	33.2	45.7	36.0	38.12	.84	.60	.65	.69	W by N.	S. by W.	Calm.	—	Generally clear. Part of the season.	
17.	30.001	29.898	29.9170	29.8886	1.71	2.58	1.90	2.06	36.1	52.2	36.6	41.49	.81	.67	.88	.81	Calm.	S. by W.	Calm.	—	Generally clear.	
18.	29.886	—	.633	.7926	1.99	3.13	.298	.268	36.0	58.0	47.7	47.87	.95	.73	.91	.80	Calm.	S.	Calm.	—	Clear a.m. Clouded p.m.	
19.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	S.S.W.	S.S.W.	Calm.	—	Generally clouded. Fair night.
20.	.938	.944	30.101	30.0194	2.12	1.64	1.12	1.57	38.6	38.6	29.4	33.27	.92	.70	.68	.79	Calm.	N.N.W.	N.W.	.070	Clouded a.m. Clear p.m. Aurora	
21.	30.158	30.209	30.205	30.2044	1.13	1.118	1.134	1.20	26.3	32.9	28.0	28.50	.79	.63	.87	.76	Calm.	W.	Calm.	—	Generally clouded.	
22.	30.233	30.137	30.091	30.1275	1.05	1.66	1.36	1.35	21.8	40.4	26.6	30.71	.87	.66	.92	.76	Calm.	S.	Calm.	—	Mostly clouded.	
23.	30.017	29.888	29.870	29.8914	1.20	2.46	2.25	2.19	23.9	49.2	44.2	41.70	.92	.71	.79	.83	Calm.	Calm.	Calm.	—	Clear a.m. Cloudy p.m.	
24.	29.901	.900	.937	.9194	.939	2.64	2.06	.232	42.4	52.0	41.3	44.71	.90	.70	.80	.79	Calm.	Calm.	N.W.	—	Clear all day.	
25.	.981	.943	.945	.9375	.240	.304	.293	.275	42.4	48.4	44.8	44.82	.90	.90	1.00	.93	Calm.	E.	Calm.	—	Mostly all day.	
26.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	S.W.	S.W.	Calm.	—	Mostly clouded.
27.	.907	.856	.875	.8819	.216	.316	.248	.279	37.3	60.3	44.2	48.27	.98	.61	.87	.84	Calm.	Calm.	Calm.	—	Clear all day.	
28.	.889	.812	.801	.8361	.265	.332	.241	.273	45.4	59.9	49.0	49.42	.88	.66	.70	.78	Calm.	S.W.	Calm.	—	Mostly clear.	
29.	.758	.580	.572	.6231	1.88	3.29	.316	3.11	37.0	60.4	50.6	54.59	.86	.58	.87	.74	Calm.	E.	Calm.	—	Clear a.m. Clouded p.m. Sheet lightning	
30.	.605	.665	.718	.6671	.386	3.55	.292	.340	57.3	52.5	54.3	52.51	.84	.91	.86	.87	Calm.	E.	Calm.	—	Clouded all day.	
31.	.617	.403	.336	.4307	.319	.386	.393	.361	50.0	55.2	53.22	53.22	.89	.90	.95	.90	E.N.E.	S.W.	Calm.	—	Clouded all day. Rain 6 to 7 p.m.	
Mean	29.8217	29.7790	29.7691	29.7949	.255	.301	.264	.273	42.23	52.39	44.90	46.55	.90	.74	.86	.83	Total	—	—	1.850	—	—

Highest Barometer, .. .. . 30.242 at 9 a.m. of 22d.  
 Lowest do. .. .. . 29.302 at 6 a.m. of 1st.  
 Highest Temperature, .. .. . 61° 0 on 19th, p.m.  
 Lowest do. .. .. . 19° 7 on 22d, a.m.  
 Mean Daily Range, .. .. . 18° 0.33  
 Extreme Daily Range, .. .. . 28° 3 on 5th, p.m.—6th, a.m.

Under the head of 'Tension of Vapour' is given the elastic force of the aqueous Vapour in the Atmosphere at each Observation, in terms 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 27 1/2 above the soil.  
 The Means entered are the Means by 24 hourly Observations, from 9, a.m., to 9, a.m.  
 † The quantity of Rain received each 24 hours, is noted at 9, a.m.

Proportion of Wind from each Quarter—  
 N.W. .. .. . 75  
 N.E. .. .. . 115  
 S.E. .. .. . 68  
 S.W. .. .. . 52  
 Proportion of Calm, .. .. . 327