

Monthly Meteorological Register, at the Provincial Magnetical Observatory, Toronto, Canada West.—July, 1854.

Latitude, 43 deg. 39.4 min. North. Longitude, 79 deg. 21. min. West. Elevation above Lake Ontario, 108 feet.

Day.	Barom. at temp. of 32 deg.				Temp. of the Air.				Mean Temp. + or - of the Average	Tension of Vapour.				Humidity of Air.				Wind.				Rain in Inch.
	6 A.M.	2 P.M.	10 P.M.	Mean.	6 A.M.	2 P.M.	10 P.M.	M.N.		6 A.M.	2 P.M.	10 P.M.	M.N.	6 A.M.	2 P.M.	10 P.M.	M.N.	6 A.M.	2 P.M.	10 P.M.	Mean Vel'y.	
1	29.773	29.800	29.776	29.782	63.4	79.7	59.9	67.50	+ 4.73	0.412	0.490	0.363	0.446	72	51	73	64	N	SSE	Calm	2.91	...
2	810	717	—	—	65.6	81.1	—	—	—	446	821	—	—	73	79	—	—	NE	Eb S	—	2.68	...
3	618	669	491	555	71.6	93.0	78.1	81.32	+16.17	625	767	543	650	71	51	58	63	Calm	S	SW	2.51	...
4	477	311	466	424	74.3	93.6	69.6	78.60	+13.30	575	759	616	655	69	50	88	68	Calm	SSW	Calm	4.27	0.895
5	551	575	608	583	62.8	79.3	65.8	69.55	+ 4.17	450	633	498	509	77	65	80	72	NbW	SbW	NbE	3.96	...
6	691	696	697	699	64.4	82.2	65.3	71.83	+ 6.23	459	710	495	554	78	66	82	73	Calm	SbE	Calm	1.88	...
7	713	655	616	657	66.1	81.1	70.6	73.00	+ 7.30	544	509	553	531	87	49	76	69	NbE	Eb N	Calm	3.42	...
8	593	467	525	522	69.8	91.0	74.3	79.23	+13.45	519	867	751	738	73	61	92	76	Calm	SbW	W	6.03	0.350
9	616	658	—	—	64.2	70.0	—	—	—	618	396	—	—	88	55	—	—	NNW	NWbN	—	7.28	...
10	741	715	675	709	58.5	76.8	63.2	67.28	+ 1.20	376	389	464	420	77	43	82	66	NbW	SbW	SW	3.6	...
11	674	607	659	653	67.1	73.3	62.5	67.87	+ 1.68	474	631	480	478	73	66	87	72	Calm	S	NNW	4.13	0.075
12	743	792	838	803	58.2	71.6	58.1	62.40	— 3.90	336	327	299	318	71	43	64	59	WNW	NWbN	NNW	8.03	...
13	881	836	763	818	56.3	73.1	54.2	61.98	— 4.40	324	457	329	386	74	55	80	71	NE	E	Calm	4.84	...
14	727	671	675	690	66.8	83.3	67.6	72.15	+ 5.73	490	526	433	504	79	48	67	67	N	SE	N	2.98	...
15	753	735	698	726	65.3	82.9	66.8	72.13	+ 5.65	475	557	464	498	78	50	72	66	NbW	SbE	Calm	2.67	...
16	714	683	—	—	71.1	77.0	—	—	—	530	523	—	—	72	58	—	—	NNE	E	—	3.73	Imp.
17	757	737	740	744	72.9	89.1	74.7	79.42	+12.75	571	472	488	515	73	36	58	54	N	S	NNW	5.01	...
18	785	690	591	683	74.0	83.3	69.3	74.93	+ 8.25	603	626	576	581	74	56	83	70	Calm	ESE	Calm	2.59	...
19	576	558	511	547	70.9	73.6	68.2	72.83	+ 6.05	598	715	614	671	82	89	92	86	Calm	EbN	WNW	3.09	1.135
20	542	455	550	521	72.6	92.1	74.3	79.95	+13.18	731	796	756	738	95	54	93	78	Calm	S	Calm	3.26	0.640
21	630	635	626	626	71.8	81.7	71.2	75.23	+ 8.47	655	716	596	666	86	68	80	78	NbW	EbS	NEbN	5.05	...
22	596	571	615	588	69.6	84.1	69.3	75.22	+ 8.35	559	787	630	666	80	69	90	79	NNE	EbS	NNW	3.19	0.565
23	681	658	—	—	67.5	81.7	—	—	—	617	639	—	—	79	60	—	—	NNW	SbE	—	2.34	Imp.
24	675	633	579	628	71.1	84.0	68.4	75.45	+ 8.58	594	618	548	606	80	54	81	72	Calm	E	Calm	3.02	...
25	484	351	339	387	68.4	88.8	75.4	78.98	+12.02	600	738	655	676	89	56	77	71	NE	SbE	SSW	7.44	...
26	428	533	682	563	73.6	78.1	57.4	69.72	+ 2.75	620	413	308	451	77	44	66	63	SWbW	W	WNW	12.84	...
27	853	823	799	813	61.9	74.2	56.5	64.52	— 2.47	395	404	312	397	74	49	70	68	NWbW	S	Calm	4.31	...
28	822	725	686	741	65.0	81.7	68.6	71.70	+ 4.73	509	500	399	543	85	48	88	74	Calm	SE	WSW	2.83	0.395
29	451	443	513	469	65.7	84.0	71.4	73.32	+ 6.37	567	772	552	614	92	68	74	77	SbW	S	SWbW	8.39	...
30	713	747	—	—	66.1	76.6	—	—	—	497	601	—	—	79	68	—	—	W	S	—	2.75	0.6.5
31	807	712	651	715	63.5	72.7	63.8	65.98	— 0.97	522	611	466	518	91	79	81	83	Calm	EbS	Calm	1.06	0.0.5
M	29.669	29.625	29.629	29.6403	67.09	81.86	67.10	72.47	+ 6.22	0.518	0.603	0.515	0.550	79	56	78	71	3.21	7.19	2.83	4.26	4.805

Highest Barometer..... 29.885, at 8 a.m. on 13th } Monthly range:

Lowest Barometer..... 29.308, at 4 p.m. on 4th } 0.577 inches.

Highest registered temperature 98° 0, at p.m. on 19th } Monthly range:

Lowest registered temperature 42° 5, at a.m. on 12th } 55° 5.

Mean Maximum Thermometer..... 84° 79 } Mean daily range:

Mean Minimum Thermometer..... 58° 46 } 26° 33.

Greatest daily range..... 44° 5, from p.m. of 4th to a.m. of 5th.

Warmest day..... 3rd. Mean temperature..... 81° 32 } Difference,

Coldest day..... 13th. Mean temperature..... 61° 38 } 19° 34.

Greatest intensity of Solar Radiation, 106° 4 on 3rd, p.m. } Range,

Lowest point of Terrestrial Radiation, 38° 2 on 12th, a.m. } 68° 2.

Aurora observed on 4 nights: viz. on 3rd, 10th, 22nd, and 24th.

Possible to see Aurora on 26 nights.

Impossible to see Aurora 5 nights.

Raining on 9 days. Raining 28.7 hours: depth, 4.805 inches.

Thunder Storms occurred on the 4th, 8th, 11th, 19th, 20th, 22nd, 29th, and 31st.

Sheet Lightning, not accompanied by thunder or rain, observed on the 14th, 15th, 16th, 18th, 21st and 25th.

Hailstones and irregular pieces of ice fell during the thunderstorm on the 4th, at 4.30 p.m.

H. M.
 { on the 4th, in 2.30 there fell 0.895 inches on the surface.
 Heavy Rain { " 19th, " 8.30 " 1.135 " "
 " 20th, " 0.20 " 0.640 " "
 " 22nd, " 0.22 " 0.565 " "

Sum of the Atmospheric Current, in miles, resolved into the four Cardinal directions.

North. West. South. East.
 976.23 1010.80 1110.08 823.43

Mean direction of the Wind, W 32° S.

Mean velocity of the Wind, 4.26 miles per hour.

Maximum velocity, 26.4 miles per hour, from 10 to 11 a. m. on 26th.

Most windy day, the 26th; mean velocity, 12.84 miles per hour.

Least windy day, the 31st; mean velocity, 1.06 " "

The velocity of the wind from 4h. 35m. to 4h. 41 p.m., during the thunder storm on the 4th, equalled 6.8 miles, being at the rate of 68.0 miles per hour, and on the 8th from 5h. 26m. to 5h. 43m. p. m. it attained the rate of 33.9 miles per hour.

10th. Beautiful band of Auroral light from 9.20 to 10.50 p. m., rising from W horizon, passing through β Leonis in the West, α Corone Borealis in zenith, and bounded on its northern edge towards the east by α Hercules. This band was very remarkable from its fixity of position.

Comparative Table for July.*

Year.	Temperature.					Rain.		Wind.
	Mean.	Dif. f'm	Max.	Min.	Range.	D's.	Inch.	
	°	Avg'ge.	obs'vd.	obs'vd.	°			Mean Vel'y.
1840...	66.0	-0.2	79.4	48.2	31.2	6	5.270	...
1841...	65.0	-1.2	86.3	43.2	43.1	10	8.150	0.27 lb.
1842...	64.7	-1.5	90.5	42.0	48.5	4	3.050	0.33 lb.
1843...	64.5	-1.7	86.1	40.2	45.9	8	4.605	0.44 lb.
1844...	66.0	-0.2	86.1	40.5	45.6	12	2.815	0.19 lb.
1845...	66.2	0.0	94.6	45.6	49.0	7	2.195	0.30 lb.
1846...	68.0	+1.8	94.0	44.9	49.1	9	2.895	0.29 lb.
1847...	68.0	+1.8	87.5	43.8	43.7	8	3.355	0.19 lb.
1848...	65.5	-0.7	82.7	46.7	36.0	10	1.890	4.94 Miles.
1849...	68.4	+2.2	89.1	51.0	38.1	4	3.415	3.52 Miles.
1850...	68.9	+2.7	84.9	52.8	32.1	12	5.270	4.56 Miles.
1851...	65.0	-1.2	82.7	52.1	30.6	12	3.625	4.13 Miles.
1852...	66.8	+0.6	90.1	49.5	40.6	8	4.025	3.33 Miles.
1853...	65.6	-0.6	85.4	49.4	36.0	10	0.915	3.70 Miles.
1854...	72.5	+6.3	93.6	53.0	40.6	9	4.805	4.26 Miles.
M'n.	66.74		87.53	46.86	40.67	8.6	3.752	4.06 Miles.