

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

Latitude, 43 deg. 39.4 min. North. Longitude, 79 deg. 21. min. West. Elevation above Lake Ontario, 168 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'S.		6 A.M.	2 P.M.	10 P.M.	M'S.	6 A.M.	2 P.M.	10 P.M.	M'S.	6 A.M.	2 P.M.	10 P.M.	Mean Vel'y	
1	29.797	29.757	29.681	29.732	62.8	61.7	61.4	63.97	+ 0.93	0.503	0.490	0.516	0.526	90	91	93	91	N N E	S S E	N E	3.43	1.330
2	671	612	587	621	61.8	81.0	68.2	71.40	+ 8.67	561	756	595	611	91	61	89	81	Calm	Calm	Calm	1.37	0.595
3	703	709	—	—	70.2	85.3	—	—	—	673	756	—	—	91	61	—	—	NWbN	S S W	—	2.58	—
4	717	657	647	664	66.0	80.2	68.4	71.83	+ 9.70	542	718	560	611	87	71	84	80	NEbN	E S E	Calm	2.62	—
5	605	533	530	550	64.5	93.1	73.9	77.95	+ 16.12	568	743	671	676	96	49	82	75	Calm	S S W	Calm	1.47	0.020
6	533	463	576	525	71.1	89.0	71.2	77.63	+ 16.20	666	668	658	666	80	51	89	73	W S W	SWbW	W	5.38	0.250
7	677	690	771	714	56.9	77.4	53.1	63.48	+ 2.33	416	477	350	437	91	49	88	77	Calm	WbN	Calm	5.72	—
8	716	618	512	607	50.0	69.5	57.8	60.17	+ 0.57	328	409	431	407	92	58	92	81	N b W	N	N b E	4.61	1.705
9	471	494	529	503	55.5	59.7	57.7	57.95	+ 2.40	395	439	406	416	92	87	87	88	N N E	N N E	N b E	5.34	0.030
10	582	589	—	—	53.1	65.7	—	—	—	263	321	—	—	66	52	—	—	NEbN	N E	—	5.86	—
11	677	600	501	582	66.2	69.5	63.0	60.42	+ 0.77	278	420	538	415	90	60	96	81	N	E b S	S E b E	3.68	—
12	451	555	713	592	61.1	77.0	58.5	61.68	+ 5.45	496	586	356	441	93	65	73	71	Calm	NWbW	N N W	8.66	—
13	877	873	800	848	48.3	68.4	55.3	56.57	+ 2.28	251	412	347	336	75	60	81	74	N N E	E	E	5.66	0.395
14	698	578	612	623	55.6	64.5	63.2	61.25	+ 2.92	405	534	542	493	93	90	96	93	N b E	N b E	Calm	1.55	0.140
15	737	813	931	836	59.2	62.2	45.1	54.93	+ 2.98	403	290	249	312	82	53	83	71	N b W	N b W	Calm	7.24	—
16	991	961	30.001	983	42.7	65.8	50.0	53.85	+ 3.67	237	345	260	295	87	56	73	72	Calm	NWbN	N	3.02	—
17	30.086	993	—	—	45.5	60.8	—	—	—	227	318	—	—	75	61	—	—	N N E	Calm	—	1.38	—
18	29.778	618	29.539	632	50.5	69.6	65.0	63.37	+ 6.75	254	561	549	485	70	80	92	83	Calm	S	SWbW	3.81	0.165
19	445	333	323	366	61.6	77.3	60.7	66.92	+ 10.80	558	468	453	488	94	51	87	78	SWbW	W	NWbN	10.81	0.245
20	594	734	872	751	50.6	55.5	42.4	48.52	+ 7.08	253	217	201	219	69	50	75	66	NWbN	N b W	N N W	9.52	—
21	950	906	940	938	41.3	59.9	51.7	50.77	+ 4.35	214	235	355	257	83	45	91	72	N b E	S b W	W	5.47	0.005
22	30.099	30.113	30.028	30.081	35.3	61.5	52.2	51.98	+ 2.65	183	372	320	292	86	70	83	76	N W	S	S W	3.44	—
23	29.956	29.812	29.734	29.825	40.9	70.7	56.5	56.78	+ 2.57	214	427	387	357	97	53	86	79	Calm	S b W	Calm	4.03	—
24	680	581	—	—	52.8	71.6	—	—	—	323	485	—	—	82	65	—	—	W b N	S S E	—	1.73	0.080
25	429	438	503	464	57.6	70.2	61.4	63.55	+ 10.32	417	620	470	509	90	87	88	89	Calm	S b E	Calm	1.63	0.050
26	596	559	553	568	53.3	74.5	59.6	62.85	+ 10.12	351	613	447	484	88	74	89	86	Calm	S b E	Calm	1.33	—
27	558	459	626	547	59.3	79.0	57.6	65.08	+ 12.87	448	674	444	531	91	70	96	87	Calm	SWbS	NWbN	6.04	0.365
28	693	683	727	700	48.3	70.1	56.0	59.03	+ 7.20	287	321	367	316	86	46	81	73	NWbN	S b W	N b E	4.51	—
29	966	30.017	30.092	30.048	48.1	60.6	42.2	50.70	+ 0.62	263	309	238	272	80	60	90	76	N N E	E S E	N b E	4.44	—
30	30.098	29.973	29.781	29.923	41.6	60.9	52.0	51.47	+ 0.65	202	232	351	269	78	41	92	73	N N E	S E	Calm	2.86	Imp.
M	29.722	29.688	29.697	29.7008	53.73	70.34	57.98	61.04	+ 3.55	0.373	0.475	0.426	0.430	87	63	87	79	4.11	7.78	3.93	4.31	5.375

Highest Barometer..... 30.142, at 9.30 a.m. on 22d } Monthly range:  
 Lowest Barometer..... 29.302, at 4 p.m. on 19th } 0.840 inches.  
 Highest registered temperature 93°-6, at p.m. on 5th } Monthly range:  
 Lowest registered temperature 35°-8, at a.m. on 22d } 57°-8.  
 Mean Maximum Thermometer..... 72°-59 } Mean daily range:  
 Mean Minimum Thermometer..... 49°-09 } 23°-50.  
 Greatest daily range..... 35°-9, from p.m. of 6th to a.m. of 7th.  
 Warmest day..... 5th. Mean temperature..... 77°-95 } Difference,  
 Coldest day..... 20th. Mean temperature..... 48°-32 } 29°-43.  
 Greatest intensity of Solar Radiation, 104°-8 on 6th, p.m. } Range,  
 Lowest point of Terrestrial Radiation, 29°-8 on 22d, a.m. } 75°-0.  
 Aurora observed on 6 nights: viz. 10th, 15th, 17th, 21st, 26th, & 27th.  
 Possible to see Aurora on 22 nights.  
 Impossible to see Aurora 8 nights.  
 Raining on 14 days. Raining 49.8 hours: depth, 5.375 inches.  
 Thunder Storms occurred on the 1st, 2d, 3d, 6th, 14th, and 27th.  
 Sheet Lightning, not accompanied by thunder or rain, observed on the  
 18th, and 19th.

Sum of the Atmospheric Current, in miles, resolved into the four Cardinal directions.  
 North. West. South. East.  
 1579.54 1051.45 632.80 657.49  
 Mean direction of the Wind, N 15° W.  
 Mean velocity of the Wind, 4.31 miles per hour.  
 Maximum velocity, 25.5 miles per hour, from 11.30 to 12.30 p. m. on 19th.  
 Most windy day, the 19th; mean velocity, 10.39 miles per hour.  
 Least windy day, the 2d; mean velocity, 1.37 " "  
 During the violent thunder storm on the 6th, the velocity of the wind from 4h. 00m. to 4.25m. p.m., was at the rate of 32.4 miles per hour.

A beautiful, very perfect, and well defined Auroral Arch or Band extending across the Zenith from West towards East, from 8.15 to 9.30 p.m., on the 26th.

Hoar Frost was observed on the mornings of the 21st, 22d, and 30th. That on the 21st was the earliest noticed at this Observatory this season.

The Registered Maximum on the 5th (93°-6) is the highest temperature yet recorded at this Observatory in September.

Comparative Table for September.

Year.	Temperature.				Range.	Rain.		Wind. Mean Vel'y.
	Mean.	Dif. f'm Av'ge.	Max. obs'vd.	Min. obs'vd.		D's.	Inch.	
1810...	54.0	-4.0	70.2	29.4	40.8	4	1.380	...
1811...	61.3	+3.3	79.9	37.5	42.4	9	3.340	0.26 lb.
1812...	55.7	-2.3	83.5	28.3	55.2	12	6.160	0.45 lb.
1813...	59.1	+1.1	87.8	33.1	51.7	10	9.760	0.37 lb.
1814...	58.6	+0.6	81.5	29.6	51.9	4	Imp't.	0.26 lb.
1815...	56.0	-2.0	78.8	35.3	43.5	16	6.245	0.34 lb.
1816...	63.6	+5.6	81.0	39.0	45.0	11	4.595	0.33 lb.
1817...	55.6	-2.4	74.8	38.1	36.7	15	6.665	0.33 lb.
1818...	54.2	-3.8	80.9	29.5	51.1	11	3.115	5.21 Miles.
1819...	58.2	+0.2	80.6	33.5	47.1	9	1.180	4.23 Miles.
1850...	56.5	-1.5	76.0	31.7	44.3	11	1.735	4.78 Miles.
1851...	60.0	+2.0	86.3	33.1	52.9	9	2.665	5.45 Miles.
1852...	57.5	-0.5	81.8	36.1	45.7	10	3.630	4.60 Miles.
1853...	58.8	+0.8	85.4	36.1	49.3	12	5.140	4.30 Miles.
1854...	61.0	+3.0	93.1	36.3	56.8	14	5.375	4.31 Miles.
M'n.	58.01		81.64	33.79	47.85	5		4.78