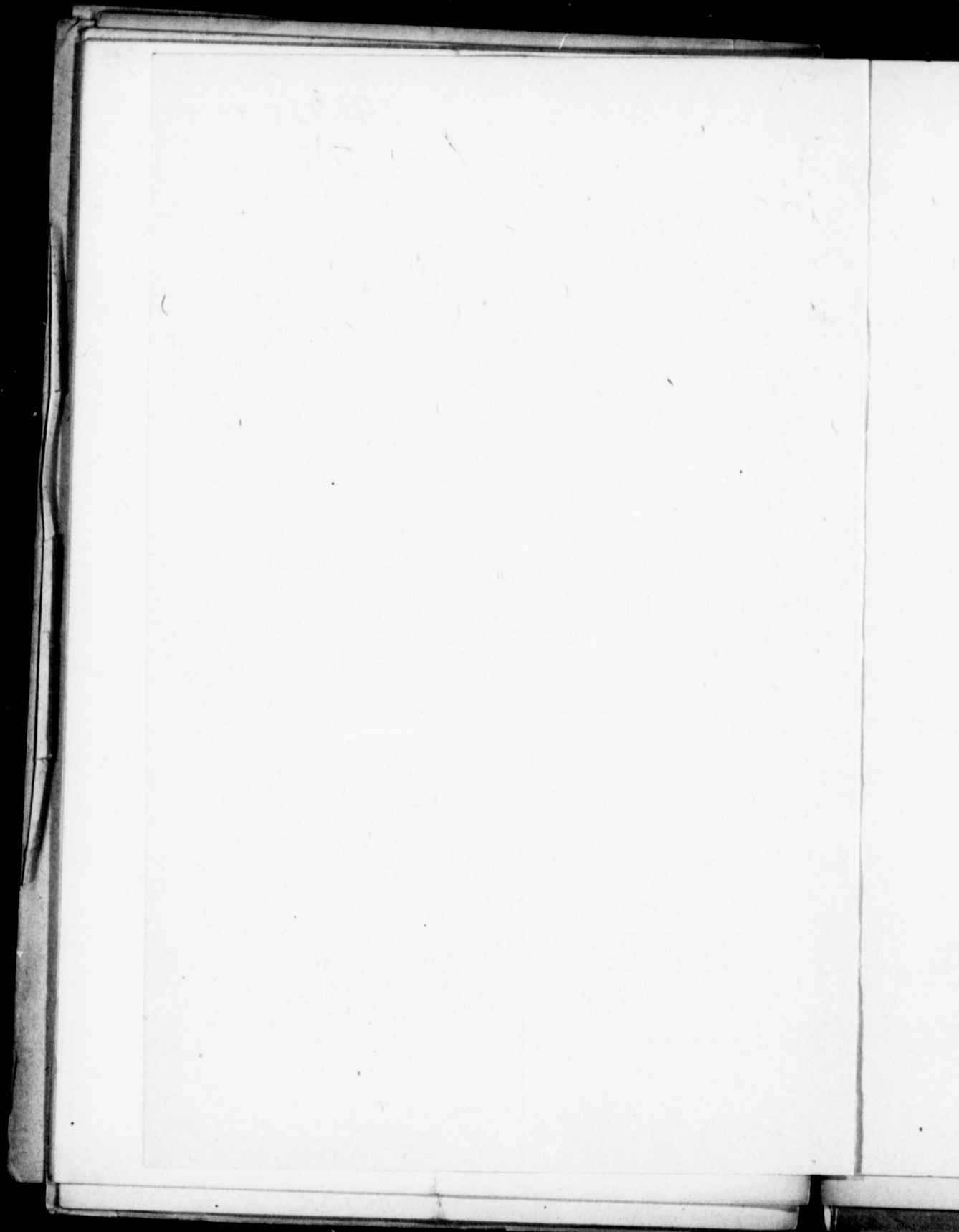


QC985.5  
0664

---

TORONTO  
GENERAL METEOROLOGICAL REGISTER  
FOR THE YEAR 1897.

---



## REMARKS ON THE METEOROLOGICAL RESULTS AT TORONTO FOR THE YEAR 1897.

### TEMPERATURE.

The mean temperature of the year 1897 was  $45^{\circ}93$ , being  $1^{\circ}72$  warmer than the average of 57 years and  $0^{\circ}57$  warmer than 1896.

The mean temperature of the several months was in ten instances above and in two below the average for their respective months, the average excess to the average defect being in the ratio of  $2^{\circ}33$  to  $1^{\circ}33$ . On each of 214 days the mean temperature was above the normal of that particular day and below on 151 days. The mean temperature of each month, with the difference from the normal, was: January,  $23^{\circ}51 + 0^{\circ}76$ ; February,  $25^{\circ}01 + 2^{\circ}61$ ; March,  $31^{\circ}58 + 2^{\circ}92$ ; April,  $42^{\circ}79 + 1^{\circ}74$ ; May,  $52^{\circ}49 + 0^{\circ}22$ ; June,  $61^{\circ}30 - 1^{\circ}12$ ; July,  $72^{\circ}11 + 4^{\circ}49$ ; August,  $64^{\circ}73 - 1^{\circ}54$ ; September,  $60^{\circ}84 + 2^{\circ}23$ ; October,  $50^{\circ}88 + 4^{\circ}54$ ; November,  $37^{\circ}95 + 1^{\circ}88$ ; December,  $28^{\circ}28 + 1^{\circ}91$ . Dividing the year into the ordinary seasons we have for Winter,  $26^{\circ}58$ ; Spring,  $52^{\circ}19$ ; Summer,  $65^{\circ}89$ ; Autumn,  $39^{\circ}06$ . The thermic anomalies differ from the normal temperature proper to the latitude: Winter,  $-9^{\circ}29$ ; Spring,  $-5^{\circ}46$ ; Summer,  $-0^{\circ}33$ ; Autumn,  $-5^{\circ}30$ . In one month during the year the observed temperature exceeded the normal value for the latitude, viz.: July,  $3^{\circ}41$ . The mean daily range for the year was  $16^{\circ}21$ , the greatest monthly average occurring in September ( $20^{\circ}57$ ) and the least in November ( $12^{\circ}08$ ). The greatest daily range ( $36^{\circ}0$ ) occurred on the 16th October, and the least ( $2^{\circ}6$ ) on the 9th February. The warmest month relatively was October, estimated by its excess ( $4^{\circ}54$ ) above the normal, July, the warmest absolutely. The coldest absolutely was January ( $23^{\circ}15$ ). October was the coldest relatively, its mean being  $1^{\circ}54$  below the normal.

The climatic difference was  $48^{\circ}96$ , the warmest day was the 5th of July, mean temperature,  $81^{\circ}62$ , and the coldest the 24th January,  $0^{\circ}67$ ; but the warmest day relatively was the 24th January, it being  $24^{\circ}9$  above its proper normal, and the coldest the 24th December, which was  $18^{\circ}2$  below the normal. The average temperature of the warmest and coldest days from former years was  $77^{\circ}96$  and  $2^{\circ}30$  below zero. The highest temperature of the year ( $93^{\circ}3$ ) occurred on the 5th July, and the lowest ( $7^{\circ}2$  below zero) on the 25th of January. The annual range from these extremes was  $100^{\circ}5$ , being  $8^{\circ}7$  less than 1896 and  $2^{\circ}7$  less than the average annual range. There were 28 instances in which the temperature at the hour of observation was  $20^{\circ}$  above the normal and 11 when a defect of equal amount occurred. The most striking deviations from the daily normal curve of temperature have been as follows:—

#### IN EXCESS.

	°		°
January 4, Mean Deviation.....	19.5	September 30, Mean Deviation.....	14.0
do 16 do .....	12.2	October 1 do .....	13.5
do 24 do .....	24.9	do 11 do .....	13.3
do 25 do .....	14.2	do 15 do .....	24.5
February 17 do .....	13.5	do 16 do .....	14.6
April 5 do .....	12.1	December 9 do .....	13.6
do 23 do .....	13.7	do 10 do .....	22.1
do 24 do .....	15.0	do 11 do .....	15.6
July 4 do .....	13.1	do 13 do .....	12.6
do 5 do .....	14.6	do 14 do .....	14.9
September 9 do .....	14.7	do 15 do .....	15.2
do 10 do .....	17.7	do 16 do .....	13.4
do 16 do .....	16.6	do 30 do .....	12.3

## IN DEFECT.

February 26, Mean Deviation.....	14.2	April 19, Mean Deviation.....	12.8
do 27 do .....	13.7	December 19 do .....	15.3
do 28 do .....	14.0	do 24 do .....	18.2
March 16 do .....	14.6		

## BAROMETRIC PRESSURE.

The mean height of the Barometer was 29.6319 inches, being 0.0125 inches more than the average. The month which showed the greatest deviation from the normal was September, 0.102 in excess; January showing the least, 0.000. Average deviation without reference to sign was small, being only 0.036. The highest reading was 30.353 inches at 8 a.m. of March 7th, and the lowest 28.779 at 2 p.m. of March 24th, giving a range of pressure of 1.574 inches.

The number of days of large abnormal variation in which the average pressure differed by two-tenths and upwards from the normal was 137, the greatest number (21) occurring in March, and least (2) in June.

## HUMIDITY.

The mean humidity of the year was 76 being equal to the average, the greatest monthly humidity was 84, in January and December, and the least, 69, in June. There were 16 cases of complete saturation at the hour of observation: 1 in February, 5 in March, 2 in April, 3 in October, 3 in November, and 2 in December. The least humidity of the year at the hour of observation was 24 on the 31st of March, at 2 p.m.

## CLOUDS.

The extent of the sky clouded was on the average of the year six-tenths of the whole. October was the clearest month and December the most cloudy. During the year there were 58 days completely clouded, being 6 less than the average (1896-79), the greatest number (11) occurring in January, none being registered in the month of August.

## WIND.

The resultant direction of the wind was N. 89° W., showing 10° more southing than in 1896, and 28° more southing than in the seventeen years to 1890. The mean velocity of the wind without reference to direction was 12.33 miles. The most windy month was February, with an average of 17.01 miles per hour, and the least windy was August, with an average of 8.70 miles. The windiest day was March 14th, average velocity 38.87 miles per hour, and the day of least velocity was July 8th, average velocity 2.50 per hour. The highest velocity in one hour was 51.0 miles, noon to 1 p.m. of the 26th of April.

## RAIN AND SNOW.

The total depth of rain that fell during the year was 27.737 inches, being 0.523 inches more than the average, and 5.969 more than the rainfall of 1896. The depth of snow, 47.4 inches, was 6 inches less than the average, and 25.9 inches less than the snowfall of 1896. July was the most rainy month as to quantity (5.240), and November with reference to the number of rainy days. September was the least rainy month, only 0.395 inches having fallen.

The day of greatest rainfall was the 27th of July, when 3.881 inches fell. (This is the largest amount on record in one day's rain.) There were four other days during the year on which over one inch fell.

The heaviest fall of snow in one day was 4'1 inches on the 9th of April. Rain fell on 110 days, being 4 less than the average number, and 6 more than in 1896. Snow fell on 43 days, being 21 less than the average and the same as in 1896. There were 173 days on which neither rain nor snow fell; in 1896 the number was 174. The rain occupied 537 hours, and the snow 286 hours in its fall, giving a total of 823 hours, or 34 days and 7 hours when rain or snow was actually falling.

#### THUNDER-STORMS.

Of the 19 thunder-storms occurring during the year, the first was on the 20th of March, and the latest on November 11, 1 in March, 1 in April, 3 in May, 2 in June, 5 in July, 5 in August, 1 in September and 1 in November. The most severe storms were on the 6th of June, 11th of July 10th and 15th of August.

#### AURORA.

Auroral displays were less numerous than in any previous year. Of the 3 observed, none were of the first class, 1 of the second class, 1 of the third class and 1 of the fourth class. There were 179 nights favourable for observation. The most brilliant display occurred on the 1st of April.

#### SUNSHINE.

The total duration of bright sunshine during the year was 1987'6 hours; number of hours the sun was above the horizon, 4463'3; ratio of registered to possible, 0'45.

**GENERAL METEOROLOGICAL  
MAGNETICAL OBSERVATORY,**

Latitude 43° 39' 4 N. Longitude 5h. 17m. 34' 65 W. Elevation

	JAN.	FEB.	MAR.	APRIL.	MAY.	JUNE.	JULY.
Average temperature .....	23° 15	25° 01	31° 58	42° 79	52° 49	61° 20	72° 11
Difference from average (57 years).....	+ 0 76	+ 2 61	+ 2 92	+ 1 74	+ 0 22	- 1 12	+ 4 49
Thermic Anomaly (Lat. 43° 40').....	- 9 65	- 9 69	- 8 52	- 7 41	- 5 61	- 3 30	+ 3 41
Highest temperature.....	51 7	44 0	53 6	71 1	74 3	84 4	93 3
Lowest temperature.....	- 7 2	1 0	2 0	20 9	33 6	37 5	53 3
Monthly and annual ranges.....	58 9	43 0	51 6	50 2	40 7	46 9	40 0
Average maximum temperature.....	23 72	30 82	38 50	51 16	60 99	71 21	81 41
Average minimum temperature.....	15 60	18 17	24 57	34 72	44 08	50 98	63 54
Average daily range.....	14 12	12 65	13 93	16 44	16 91	20 23	17 87
Greatest daily range.....	34 7	24 2	33 8	2 9	28 4	29 3	29 9
Average height of barometer at 32° Fahr.	29 6496	29 6609	29 6347	29 6702	29 5638	29 5634	29 5339
Difference from average (56 years).....	- 0001	+ 0231	+ 0279	+ 0711	- 0119	- 0082	- 0542
Highest barometer.....	30 325	30 324	30 353	30 308	30 016	29 822	29 869
Lowest barometer.....	28 956	29 169	28 779	29 156	29 294	29 309	29 236
Monthly and annual ranges.....	1 369	1 155	1 574	1 152	0 812	0 513	0 633
Average humidity of the air.....	84	81	76	71	71	69	77
Difference from average.....	+ 1	0	1	+ 1	+ 1	- 4	+ 5
Average elasticity of aqueous vapour....	0 116	0 114	0 140	0 2 2	0 280	0 345	0 508
Average temperature of dew point....	21 6	21 2	25 8	34 8	43 2	48 8	64 1
Average of cloudiness.....	0 78	0 74	0 61	0 63	0 67	0 52	0 44
Difference from average (43 years).....	+ 04	+ 05	- 02	+ 05	+ 10	00	- 06
Resultant direction of wind.....	S 72° W	N 16° W	N 58° W	S 63° W	S 77° W	S 60° W	N 22° W
velocity of wind.....	5 73	3 37	5 18	2 94	1 90	3 37	2 18
Average velocity (miles per hour).....	15 68	17 01	16 81	14 10	11 64	9 59	9 60
Total amount of rain in inches.....	0 805	1 570	2 330	1 725	3 018	2 924	5 240
Difference from average (57 years).....	- 0 372	+ 0 684	+ 0 919	- 0 437	- 0 023	+ 0 076	+ 2 287
Number of days of rain.....	5	4	11	13	12	10	13
Total amount of snow in inches.....	11 1	7 7	6 4	4 1	...	...	...
Difference from average (57 years).....	- 6 3	- 9 54	- 5 84	+ 1 70	- 0 13	...	...
Number of days of snow.....	10	10	7	1	...	...	...
Number of fair days.....	7	12	15	13	15	17	18
Number of days completely clouded.....	11	9	5	5	2	2	2
Number of auroras observed.....	0	0	1	1	0	1	0
Possible to see aurora (No. of nights)...	3	9	13	16	16	21	22
Number of thunderstorms.....	0	0	1	2	3	3	5
Number of fogs.....	2	1	2	4	1	6	0
Number of hours of bright sunshine.....	75 0	87 3	156 3	180 3	191 3	223 3	269 6
Number of hours of possible sunshine....	285 7	291 4	369 9	406 5	461 1	465 7	470 9

REG  
TORO  
above I

AUG.

64 75  
- 1 54  
- 3 75

82 8  
44 2  
38 6  
74 48  
55 22  
19 26  
28 2

29 5815  
- 0364

29 882  
29 250  
0 632

76  
+ 2

0 464  
56 9

0 40  
- 10

S 44° W  
2 63  
8 70

2 260  
- 0 577  
8

....  
....

22  
0

0  
21

5  
0

287 6  
434 5

23  
37

REGISTER FOR THE YEAR 1897.

TORONTO, ONTARIO.

above Lake Ontario, 108 feet. Elevation above the Sea, 350 feet.

E. JULY.		AUG.	SEPT.	OCT.	NOV.	DEC.	1897.	1896.	1895.	1894.	1893.	1892.	1891.
0	72° 11'	64° 75'	60° 84'	50° 88'	37° 95'	28° 28'	45° 93'	45° 36'	44° 28'	46° 75'	43° 53'	44° 61'	45° 87'
12	+ 4 49	- 1 54	+ 2 23	+ 4 54	+ 1 88	+ 1 91	+ 1 72	+ 1 15	+ 0 07	+ 2 54	- 0 68	- 0 40	+ 1 66
30	+ 3 41	- 3 75	- 0 66	- 2 92	- 5 25	- 7 72	- 5 09	- 5 66	- 6 74	- 4 27	- 7 49	- 6 41	+ 1 66
4	93 3	82 8	93 2	85 7	60 8	54 2	93 3	91 3	93 4	90 7	93 3	93 5	91 9
5	53 3	44 2	33 6	27 6	19 5	- 5 3	- 7 2	- 17 9	- 21 2	- 9 9	- 17 8	- 10 2	- 2 0
9	40 0	38 6	59 6	58 1	41 3	59 5	100 5	109 2	114 6	100 6	111 1	103 7	93 9
21	81 41	74 48	70 67	59 11	43 38	33 85	...	...	...	...	...	...	...
28	63 54	55 22	50 40	41 74	31 90	29 82	...	...	...	...	...	...	...
23	17 87	19 26	20 57	17 37	12 08	13 04	16 21	17 58	17 26	16 27	17 15	15 58	16 45
3	29 9	28 2	29 6	36 0	24 6	28 1	36 0	38 9	36 9	34 3	36 3	38 6	37 8
634	29 5339	29 5815	29 7677	29 7128	29 6234	29 6207	29 6319	29 6382	29 6171	29 6246	29 5996	29 6325	29 6385
082	- 0542	- 0364	+ 1021	+ 0688	- 0016	- 0313	- 0125	+ 0188	- 0023	+ 0052	- 0198	+ 0131	+ 0191
822	29 869	29 882	30 066	30 192	30 128	30 171	30 353	33 422	30 240	30 516	30 467	30 356	30 266
309	29 236	29 250	29 336	29 142	28 861	29 087	28 779	28 734	28 746	29 095	28 227	28 846	28 586
513	0 633	0 632	0 730	1 050	1 267	1 084	1 574	1 688	1 494	1 481	2 240	1 510	1 730
0	77	+ 2	- 7	- 2	- 1	+ 2	76 0	- 75 1	- 75 1	76 0	+ 77 1	+ 77 1	- 75 1
345	0 598	0 464	0 399	0 293	0 195	0 142	0 274	0 254	0 253	0 277	0 262	0 272	0 267
3	64 1	56 9	52 7	44 5	33 9	26 2	42 7	38 9	41 3	42 9	41 5	42 5	42 0
52	0 44	0 40	0 35	0 57	0 78	0 83	0 61	0 60	0 57	0 60	0 59	0 61	0 59
90	- 06	- 10	- 15	- 05	+ 03	+ 07	- 09	- 01	- 04	- 01	- 02	- 00	- 02
W	N 22° W	S 44° W	N 89° W	N 37° E	S 87° W	S 66° W	N 89° W	N 88° W	S 78° W	N 78° W	N 66° W	N 54° W	N 57° W
37	2 18	2 63	1 28	2 50	4 41	3 89	2 42	0 75	1 36	1 10	1 95	1 81	1 63
59	9 60	8 70	9 24	9 37	13 68	12 56	12 33	8 44	5 60	5 67	8 59	8 17	7 33
924	5 240	2 260	0 395	1 445	3 695	2 330	27 737	21 770	22 531	25 785	31 145	25 285	26 735
076	+ 2 287	- 0 577	- 2 912	- 0 906	+ 1 030	+ 0 754	+ 0 523	- 5 444	- 4 683	- 1 429	+ 3 931	- 1 929	- 0 479
0	13	8	5	9	14	6	110	104	101	114	105	119	108
...	....	....	....	....	....	....	....	....	....	....	....	....	....
...	....	....	....	....	....	....	....	....	....	....	....	....	....
...	....	....	....	....	....	....	....	....	....	....	....	....	....
7	18	22	23	17	8	6	173	174	196	179	156	165	193
2	2	0	1	3	9	9	68	55	48	43	50	57	60
1	0	21	0	0	0	0	3	18	11	23	18	33	18
1	22	0	24	18	9	7	179	194	195	199	208	195	212
3	5	5	1	0	1	0	19	25	23	56	41	40	19
6	0	0	0	5	4	3	28	30	33	30	31	36	38
3 3	269 6	287 6	237 7	157 9	68 1	53 2	1987 6	2146 7	2150 7	2017 7	2052 4	2054 4	2065 4
5 7	470 9	434 5	376 3	340 2	286 9	274 3	4463 3	4474 4	4463 3	4463 3	4463 3	4474 4	4463 3

MEAN METEOROLOGICAL RESULTS FOR 1897.

TEMPERATURE

	1897.	Average of 57 years.	EXTREMES.	
Average temperature of the year.....	45° 93	44° 21	47° 09 in 1878	40° 77 in 1873
Warmest month.....	July	July	July, 1868	Aug., 1860
Average temperature of the warmest month..	72° 11	67° 64	75° 80	64° 46
Coldest month.....	January	January	Feb., 1875	Feb., 1848
Average temperature of the coldest month...	23° 15	22° 39	10° 16	26° 00
Difference between the temperature of the warmest and coldest months.....	48° 96	45° 25	.....	.....
Average of deviations of monthly means from their respective averages of 57 years, signs of deviations being disregarded.....	2° 16	2° 73	3° 56	.....
Month of greatest deviation without regard to sign.....	October	January	Feb., 1875	.....
Corresponding magnitude of deviation.....	4° 54	4° 01	12° 24	.....
Warmest day.....	5 July	.....	July 14, '68	July 31, '44
Average temperature of the warmest day....	81° 62	77° 96	84° 50	72° 75
Coldest day.....	24 Jan.	.....	Feb. 6, 1855	Dec. 22, '42
Average temperature of the coldest day.....	0° 67	-2° 30	Jan. 22, '59	9° 57
Date of the highest temperature.....	5 July	.....	-14° 33	Aug. 19, '40
Highest temperature.....	93° 3	90° 89	99° 2	82° 4
Date of lowest temperature.....	25 Jan	.....	Jan. 10, '59	Jan. 2, 1842
Lowest temperature.....	-7° 2	-12° 28	-26° 5	1° 9
Range of the year.....	100° 5	103° 17	118° 2	87° 0

BAROMETER.

	1897.	Average of 56 years	EXTREMES.	
Average pressure of the year.....	29° 6319	29° 6191	in. 29° 6779	in. 29° 5602
Month of the highest average pressure.....	Sept.	Sept.	in 1849	in 1864
Highest monthly average pressure.....	29° 7677	29° 6656	Jan., 1849	June, 1864
Month of the lowest average pressure.....	July	June	29° 4046	29° 6525
Lowest monthly average pressure.....	29° 5339	29° 5716	March, 1859	Nov., 1859
Date of the highest pressure in the year.....	7 March	.....	2° 4143	29° 5886
Highest pressure.....	30° 353	30° 358	Jan. 8, 1866	Mar. 7, 1878
Date of the lowest pressure in the year.....	24 March	.....	30° 40	30° 139
Lowest pressure.....	28° 779	28° 700	Jan. 2, 1877	June 2, 1894
Range for the year.....	1° 574	1° 658	28° 166	29° 035
			2° 240	1° 303
			in 1896	in 1845

RELATIVE HUMIDITY.

	1897.	Average of 50 years.	EXTREMES.	
Average humidity of the year.....	76	76	82 in 1851	73 in 1858
Month of greatest humidity.....	Decemb'r	January	Jan., 1857	Dec. 1858
Greatest average monthly humidity.....	83	83	89	81
Month of least humidity.....	October	May	Feb., 1843	April, 1849
Least average monthly humidity.....	35	70	58	76



EXTENT OF SKY CLOUDED.

	1897.	Average of 44 years.	EXTREMES.	
Average cloudiness of the year .....	0.61	0.61	0.66 in '69	0.57 in 1856
Most cloudy month .....	Dec.	Dec.		
Greatest monthly average of cloudiness.....	0.83	0.76	0.89	0.73
Least cloudy month.....	October	July		
Least monthly average of cloudiness .....	0.35	0.50	0.29	0.50

WIND.

	1897.	Average of 17 years.	EXTREMES.	
Resultant direction.....	N. 89° W.	N. 61° W.		
Resultant velocity in miles.....	2.42	2.51		
Average velocity without regard to direction.	12.33	9.64		
Greatest monthly average velocity.....	Feb.	March.	10.54 in '80	8.32 in '78
Month of least average velocity.....	17.01	11.49	April, '80	Dec. 1875
Least monthly average velocity.....	August.	July.	13.88	10.42
Day of greatest average velocity.....	8.70	7.56	July '78	July 1881
Greatest daily average velocity.....	March 14.		5.93	8.43
Day of least average velocity.....	38.87	28.98	Nov. 17 '70	Feb. 10 '85
Day of least average velocity.....	July 8.		41.67	23.79
Least daily average velocity.....	2.50			
Hour of greatest absolute velocity.....	April 26.	} 45.67	April 20th.	Jan. 17, '85
	Noon to 1 p.m.			
Greatest velocity.....	51.0		60.0	39.0

NOTE.—During the year 1897, the wind has been obtained from the records of the anemograph at the Island to end of September and from October to end of year at Stanley Barracks, and no comparison has been made with the results of former years.

RAIN.

	1897.	Average of 57 years.	EXTREMES.	
Total depth of rain in inches.....	27.737	27.214	43.555 in '43	17.574 in '74
Number of days on which rain fell.....	110	114	145 in 1890	80 in 1841
Month on which the greatest depth of rain fell.	July.	Sept.	Sept., 1843	June, 1887
Greatest depth of rain in one month.....	5.240	3.307	9.760	2.655
Month in which the days of rain were most frequent.....	Nov.	Oct.	{ Jan., '69	{ May, 1841
Greatest number of rainy days in one month..	14	13	{ Oct., '90	{ 11
Day on which the greatest amount of rain fell.	July 27.		July 27, '97.	Sept. 14, '84
Greatest amount of rain in one day.....	3.881	1.904	3.881	1.000

SNOW.

	1897.	Average of 54 years	EXTREMES.	
Total depth of snow in inches.....	47.4	68.4	122.9 in '70.	34.6 in '88.
Number of days on which snow fell.....	43	66	87 in 1859.	33 in '48.
Month in which the greatest depth of snow fell	Dec.	January.	March '70.	Jan., 1895.
Greatest depth of snow in one month.....	13.3	17.4	62.4	10.5
Month in which the days of snow were most frequent.....	Dec.	January.	Dec., 1872.	Feb., 1848.
Greatest number of days of snow in one month.	11	14	24	8
Day in which the greatest amount of snow fell.....	9th Mar.	—	Feb. 5, 63. Mar. 27, '70.	4.6 Jan '88
Greatest fall of snow in one day.....	4.1	8.9	16.0	3.0

SUNSHINE.

	1897.	Average 1882 to 1896.
Total duration of bright sunshine in hours.....	1987.6	2046.1
Ratio to possible amount.....	0.45	0.46
Month of greatest relative amount.....	August.	July.
Ratio to possible amount.....	0.66	0.59
Month of least relative amount.....	December.	December.
Ratio to possible amount.....	0.19	0.22
Number of days completely clouded.....	58	64
Day of greatest relative amount.....	November 3.	—
Ratio to possible amount.....	0.94	0.91

DIFFERENCES OF CERTAIN METEOROLOGICAL ELEMENTS FOR 1897 FROM THE NORMAL VALUES FOR EACH QUARTER AND YEAR.

	Bar.	Tem.	Rain.	Days Rain.	Snow.	Days Snow.	Clouded Sky.
	in.	°	in.		in.		p.c.
Winter.....	+ .0170	+ 2.10	+ 1.231	+ 3.91	-21.71	-11.14	+ 0.02
Spring.....	+ .0170	+ 0.25	- 0.384	+ 0.75	+ 1.57	- 2.92	+ 0.05
Summer.....	+ .0038	+ 1.73	- 1.202	- 7.89	—	—	- 0.10
Autumn.....	+ .0120	+ 2.78	+ 0.878	- 0.74	- 0.83	- 8.51	+ 0.02
Year.....	+ .0125	+ 1.72	+ 0.523	- 3.87	-20.97	-22.57	.00

January ..  
February ..  
March ..

April.....

May.....

July.....  
August ..  
September

October ..

November

December

## PERIODICAL OR OCCASIONAL EVENTS, 1897.

- January ..... 1. Very mild, rain and fog. 18th, lowest water of year 23 in. below zero.
- February ..... 6. Heavy rain storm.
- March ..... 6. Robins seen. 12th, Wild Geese, flying N. 17th, Harbour clear of ice.  
20th, Black Birds. 22nd, Reed Birds, Grey Birds.
20. First Thunder of year. 21st, Gulls. 24th, First s.s. arrival.
26. Juncoes, Wax Wings, Song Sparrows, Crocus in bloom.
30. Blue Birds, Phoebe.
- April ..... 4. Worms above ground. 5th, Soft Maple in bloom. 6th, Golden Crowned  
Kinglet. 6th, Meadow Lark.
10. Frogs piping. Trailing Arbutus in bloom.
15. Highholder, Large Hawk. 19th, Pied Woodpeckers. Last Snow. 21st,  
Last Ice.
22. Chipping Sparrows. 23rd, Swallows. Elm in bloom, Willow in bloom.  
Towce, Loon, Brown Thresher, Bees.
25. Dandelion in bloom
- May ..... 5. Swifts, Mountain Ash, Lilac, Elder, Horse Chestnut and several other  
trees show many almost fully expanded leaves. Wild Cherry in  
bloom.
6. Martin, Bobolink. 8th, Baltimore Orioles, Yellow Bird.
9. King Birds, Cat Bird.
12. Pear and Plum in bloom. 13th, Humming Bird.
14. Wild Strawberry in bloom. 17th, Apple in bloom.
27. Night Hawk, Whip-poor-will.
- July ..... 27. Highest water for the year 9.5 in. above zero.
- August ..... 10. Most severe thunder storm of year; several buildings struck in city.
- September ..... 16. Humming Birds numerous.
21. Hoar Frost. 28th, First Ice.
- October ..... 8. Swallows seen for a day or two.
- 13-14. Dews very copious, measurable in rain gauge.
26. Butterflies of many different kinds about.
30. First snow - only a few flakes.
- November ..... 11. Last Thunder of season.
30. River Don frozen over.
- December ..... 17. First Sleighing. 22nd, Last vessel arrived in Harbour.
24. Harbour frozen over. 25th, Sleighing in town.
31. About 2 inches of snow remaining on ground.