



Height of Globe Gauge ^{on the roof} above Sea Level = 237 feet.

Do ————— the ground = 31 —

Latitude: $54.21.12.7$ N

Longitude: $0.26.35.5$ W.

Width of Square Rain gauge ^{inches} 10

Depth

Height from ground to edge of " 19

of stone support 10

Corrections

By 36 Observations in April & May 1871. the Corrections of the max & min thermometers as referred to the Standard thermometer were — Mean — 2.96 Min — $0.59\frac{1}{2}$.

The gauge for rain holds 1.085 inches of rain

These corrections have evidently not been applied to the readings, for I find by comparing with the Max. & Min. of the "Hourly Readings" for Apr. & May 1881 the corr. to the old instr. to be $-3^{\circ}.2$ & -0.3 .

This Max. Therm. was in use from Dec. 1860 to Sept. 1882. ^{S.L.E.D.}

For reducing Barometer to $50^{\circ} \pm 10^{\circ} = 0.027$ ^{Inch} i.e. added to the readings of A below 50° - otherwise, to be subtracted.

Registration (Mr Butler script).

At 10 A.M. Take the Square Rain gauge water in jug & bring it up to Roof: measure its quantity in glass guage with scale which is in Anemometer House: do the same with round Rain gauge on Roof. - Wind Anemometer clock & regulate the sheets. Take the Minimum of Roof Thermometer and observe the way of the wind & the state of sky. Go down to Circle room. Enter Roof Minimum in small paper book on desk. Then take the height of thermometer (upright) in window N.E. Tower & of Wet & Dry bulbs in same window. Return to Circle room & take the height of Barometer & small thermometer attached to it: Enter in this book as follows:

1st Column C (Exterior) Upright N.E. Thermom: 2^d Column A (Attached) the little Thermometer on Barometer. 3^d Barometer & Wet & Dry Bulbs. 5th Direction of Wind. 6th Space N^o of miles ^{PM} 10 to ^{AM} 10 —
7 Result of Square R. gauge. 8 9th Round. 9 & last: the figure next line marks the degree of blue in the sky: 10 the highest or ~~blue~~st sky. v: clear. b: bright. g = gloomy. h. hail. C.S. Cirro stratus H. Humuli. m. misty. f. fog. r. rain. c. cirro. s. stratus S. snow. q: squally. A dot under marks intensity.

At 10 P.M. To roof for N^o of miles on Space sheet since 10 A.M. take Wind's Direction & state of sky - Down & take Upright N.E. Thermom & Dry & Wet Bulbs height & also that of the horizontal Thermom Maximum & Minimum - when the greatest height & lowest of the gauges has been taken the Max & Min thermometers must be unscrewed & the gauges shaken back to their places —
Then take Barometer & Attached Thermom as in the morning & enter all the observation &

Armagh Observatory

1865 - 1880

1863	10 AM			Wind			Rain		
January	E	A	Bar.	Hyg.	Dir.	Miles	Squ.	R	
1	32.2	37.2	29.811	32.8	N $\frac{1}{2}$ W	61	—	—	6 overhead f. CL & G. ground white
2	34.7	36. —	29.191	34.7	SW $\frac{1}{2}$ S	250	0.088	0.062	ov q d. Xd. slight redness north horizon
3	32.1	35. —	29.377	32.8	SSW	102	—	—	of 68 thin overhead / BK faint clouds
4	41.1	40. —	29.541	41.4	W $\frac{1}{2}$ S	172	0.127	0.074	6 v q. Sound hojn
5	39.3	39. —	29.740	39.7	SSW	161	0.035	0.032	ov f. Xd.
6	35.9	38. —	29.800	35.8	W $\frac{1}{2}$ S	216	0.140	0.218	6 v q. 68 Xd. (CL in part of bar)
7	41.1	39. —	29.940	41.1	SSW	170	0.005	—	6 v q. 68 Xd.
8	46.1	43. —	29.304	46.2	SW	207	—	—	ov q. Xd.
9	39.9	40. —	29.328	39.9	SSW	208	0.004	0.025	ov m q d. Xd. 450
10	41.8	44.2	29.224	41.9	SW	295	0.070	0.285	6 v q. 6. 68. Xd. are visible sq. in of 8
11	39.7	39.5	29.264	39.8	SW	252	0.038	0.064	6. 68. Xd. 418
12	36.6	42.5	28.525	36.9	SW	251	0.472	0.572	ov? m. q. r. Xd. 324
13	32.7	38. —	28.780	32.7	SW	164	—	—	6 v. 6. 68. = 3. = 28. 562
14	37.6	38. —	28.350	37.6	NW	237	0.344	0.444	ov. q. r. Xd. at 5.15, 25.305
15	39.4	38. —	28.716	39.4	W	205	0.450	0.710	6 v q. Xd. N. Day 28. 176 at 8.15
16	39. —	38.2	28.812	39.1	WNW	131	0.160	0.177	6 v. Xd. N. previous wind at 9 $\frac{1}{2}$
17	36.1	38. —	29.192	36.1	NW	169	0.012	—	6 v. Xd. Hyg = 32.1
18	34.8	37.8	29.237	34.8	NW $\frac{1}{2}$ W	106	0.082	—	6 v. Xd. Xd.
19	32. —	36. —	29.376	32. —	N $\frac{1}{2}$ W	20	—	—	6 m. within a few min ^{ts} sky covered PK
20	27.8	35. —	29.470	27.8	W $\frac{1}{2}$ N	15	—	—	f.
21	25.6	33. —	29.448	25.6	SW	81	—	—	6 f.
22	27.8	33. —	29.492	27.8	SW	69	—	—	6 f. at 10.30'
23	27.1	31.5	29.616	27.1	SW	48	—	—	6 f. S in the garden & wall them = 14
24	31.1	33.6	29.498	31.1	N $\frac{1}{2}$ E	70	—	—	6 f.
25	23.4	31. —	29.485	23.4	W $\frac{1}{2}$ S	18	—	—	6 f.
26	32. —	33. —	29.289	32. —	N $\frac{1}{2}$ E	82	—	—	6 f.
27	28.7	32.5	29.357	28.7	N $\frac{1}{2}$ W	88	—	—	ov. Xd.
28	32. —	32. —	29.654	32. —	SW	89	—	—	6 v. Xd.
29	39.1	36.4	29.232	39.1	SE	259	0.064	—	6 v m. 68. Xd.
30	40.6	38.2	28.746	40.6	SE	217	0.712	—	ov m q d. Xd. * not rain but. Bat heaving
31	38.4	40. —	28.813	38.4	SSE	129	0.126	—	6 v r q. Xd. N. hear pool
	34.96	36.99	29.276			4542	2.924	2.649	2.663
							116		901
							2.148		

6 overhead f. CK - a G. ground white
 0 v q d KS sky redness north horizon
 0 f GS thin overhead / CK faint Chas.
 6 v q S round haze
 0 v f KS
 6 v q BS KS. (BS in part old haze)
 6 v q BS KS
 0 v q KS
 0 v m q d KS
 6 v q B. BS. KS, are measurable sq. in of
 0 v q B. BS. KS
 0 v ? m. q. r. KS Bar. 28.517
 6 v B. BS. 3. = 28.517
 0 v. q. r. KS Bar. 28.517
 6 v KS. N. various min at 9 $\frac{1}{2}$
 KS. X Hyg 53.7 / 36.1
 6 v X
 6 v X KS
 6 m within a five min. sky covered CK
 6 f
 6 f at 10.30'
 6 f S in the garden N Wall them = 14
 6 f
 6 f
 6 f
 0 v KS
 6 v X
 6 v m CK X
 0 m q d KS
 0 v r q KS. X
 0 v. KS. CK

430

418

324

382

at 5.15, 28.305

Bar 28.176 at 8.15

Wind W

1865	10 PM				Wind		Thermom ^r			
January	E	A	Bar	Hygr ^m	Dir:	Miles	Max:	Min:		
1	35.7	35.6	29.677	31.9	SWbS	47	38.	30.6	o.g.	KS?
2	37.	36.2	29.086	30.2	SW	112	39.	29.8	b ₈ .v	KS.
3	43.7	38.5	29.361	44.7	SW	214	46.	28.	o.v.	KS.
4	41.1	40.	29.649	41.3	WSW	229	49.	39.	b ₃ .v.	KS. cs.
5	40.	41.	29.482	40.2	W	196	48.5	37.5	b ₂ .v.	q. KS. cs.
6	38.5	38.	30.058	33.8	SW	144	44.5	33.	b ₂ .v.	SS, KS
7	43.	41.1	29.648	43.4	SW	243	45.1	32.7	o.v.	q. KS. cs. ck.
8	41.	42.2	29.278	41.9	WSW	205	49.	40.	o.v.	6d KS
9	48.5	45.	29.216	49.2	SW	300	51.2	35.5	o.v.	KS.
10	35.2	40.	29.361	35.3	SWbS	272	51.6	35.4	b ₉ .v.	K?
11	42.3	42.5	28.924	42.8	S	311	46.	34.6	b ₁ .v.	q. cs. KS.
12	35.	39.5	28.624	35.5	W	145	47	33.	o.v. sn	KS
13	36.	37.4	28.216	36.1	SSW	220	40	30	o.v. q.	CS. faint Halo <i>think snow strong today</i>
14	37.7	39.	28.747	38.1	NWbW	235	44.2	33.5	o.v.	KS
15	37.9	39.	28.808	38.2	W	186	44.	34.	o.v. q.	KS
16	34.1	37.6	29.064	34.3	NW	144	43.7	34.	b ₁₀ .v.	Aurora. bright arch & streamers
17	35.	38.	29.229	35.9	NW	157	44.5	31.5	b ₁ .v.	KS. v.b. auroral arch through clouds -
18	32.5	37.1	29.251	32.7	NWbS	78	40.	31.	o.g.	KS?
19	30.8	36.6	29.420	31.3	NbW	14	38.4	31.	o.g.	
20	26.4	34.2	29.476	26.4	NbW	52	34.5	26.9	b ₁₀ .f	Hyg. frozen
21	31.	33.5	29.381	31.	SWbW	100	33.	25.	o.g.	do
22	29.8	33.	29.609	26.	SW	56	34.1	26.	b ₁₀ .f.	do
23	28.9	33.	29.481	28.7	SE	147	34.2	22.5	b ₉ .f.	do
24	25.4	34.	29.539	25.5	NbW	57	39.	26.5	o.f.	do
25	30.4	23.9	29.418	30.9	NbE	35	33.4	20.8	o.v.	KS.
26	31.	33.	29.228	31.	NbW	143	35.	27.2	o.g.	do
27	22.7	32.2	29.572	22.7	SSW	82	35.	22.8	b ₁₀ .v	do
28	29.5	32.8	29.619	29.6	SSS	106	39.	22.5	b ₉ .v.	do
29	38.7	37.	28.784	38.7	SSS	98	42.9	28.	o.g. q.	S. aurora brilliant & streamers
30	41.8	39.	28.842	41.8	S	194	45.	38.4	o.g.	
31	42.	39.1	28.378	42.	SW	212	45.1	38.	o.g.	KS.
	35.00	37.39	29.240			46.34	41.76	30.64		
							41.93	30.90		

[illegible]

1865	10 P.M.			Moist ^{ure}	Wind		Heat			
February	E	A	Bar.	Hyg.	Dir.	Miles	Max ^m	Min ^m		
1	42.2	40.9	28.611	42.7 42.3	SSW	79	48.1	42.3	o. v.	KS.
2	36.9	41.1	28.785	37.1 37.	SSW	48	47.9	37.5	b. v.	K. CK.
3	33.9	40.9	29.100	34. 34.	SWbs	13	46.1	34.5	wet fog-	
4	37.5	39.4	29.332	38. 36.8	SW	176	43.9	35.9	o. v. g.	KS.
5	38.5	39.	29.537	38.7 38.1	SW E	186	42.6	34.6	o. v.	K.
6	37.9	39.1	29.344	38.4 37.3	NbbE	214	43.	35.	o. v.	KS. S
7	37.3	40.1	29.618	27.6 36.2	E	39	43.	36.8	o. v. d.	
8	35.5	38.9	30.011	36.2 36.4	EbbN	90.	43.	36.8	o. v.	K.
9	32.	36.8	30.277	32.1 30.1	SSe	118	42.	32.5	b. v.	CS. C
10	36.4	38.	30.215	36.4 35.4	SWW	143	41.	31.	o. v. g.	light rain
11	38.7	39.1	30.168	38.3 38.	SWbs	45	43.5	36.1	o. m.	KS.
12	32.1	37.4	30.145	32.6 32.	ESE	121	42.4	32.4	o. v.	KS. K.
13	33.1	35.9	30.135	32.4 32.	NE	165	36.2	31.	o. v.	KS. K.
14	28.	34.7	30.000	28.1 27.9	NbbE	87	37.	28.2	b. v.	S.
15	28.2	34.1	29.341	28.4 28.4	SWbs	69	37.1	23.9	b. g.	S. KE.
16	29.5	35.	29.070	28.6 28.6	WNW	80.	38.8	28.4	b. v.	KS.
17	30.2	34.3	29.055	30.2 30.	WSW	172.	38.6	25.9	o. v.	KS. aurora behind clouds - much snow on ground
18	35.	36.1	28.900	35.5 33.4	WSW	260.	42.	29.	o. v.	light rain
19	28.7	34.7	29.767	28.8 27.6	W	152	40.8	29.	b. v.	KS.
20	33.3	36.3	30.135	33.3 31.7	SWW	65	41.7	27.6	o. g.	KS.
21	41.8	38.2	30.029	42.7 41.7	SWbW	82	45.8	33.	o. f.	
22	46.9	43.	30.024	47.7 46.7	SWbW	170	49.7	41.2	o. g.	K. KS.
23	46.7	45.7	29.476	46.8 45.7	SSW	295	51.	46.	o. g.	rain
24	38.2	42.4	29.787	38.8 37.8	WNW	166	50.	36.8	b. v.	K.
25	41.9	44.1	29.773	42.1 40.9	SWW	141	49.3	36.3	o. g.	K.
26	37.9	43.	29.896	38.3 36.3	NNW	115	52.9	37.	b. v. g.	KS
27	44.7	44.	29.348	44.2 44.7	SWW	203	47.5	34.	o. 2 g.	
28	41.7	42.8	29.205	42.3 40.1	Wbs	222	51.	39.	o. v. g.	
	36.50	38.75	29.610			3756	43.82	33.67		
							44.15	34.00		

1865	10 Feb			Moist ^{re}	Wind		Rain		
March	E	A	Bar	Hyg ^{re}	Dir ^t	Miles	Squ.	R	
1	46.2	43.	29.502	46.75	W6N	185.	0.265	0.319	6 v q X. KS
2	41.3	43.9	29.690	41.4	NW	141.?	0.104	0.138	6 v q X. S. N towards high
3	41.1	42.	30.070	41.6	WSW	125.	0.023	0.021	6 v GS 6 KS
4	44.2	43.	29.371	44.5	SW	277.	0.050	0.060	0 m r q X. N from S to W
5	38.5	39.2	29.199	38.2	WSW	274.	0.252	0.254	6 v q r - N KS snow fell in night
6	36.	38.	29.112	36.8	WSW	106.	0.004	0.007	6 v X. snow at night
7	39.7	39.9	29.489	39.4	WSW	134.	0.042	0.013	6 v GS. S
8	37.1	38.	29.741	37.8	NW	73.	0.260	0.080	6 v X.
9	37.	38.2	29.948	37.2	NNW	29.	—	—	6 v S - X
10	44.7	42.	29.621	44.5	NW	201.	0.147	0.135	6 v X. N towards high
11	42.7	41.2	29.890	42.8	NE	183.	0.025	0.038	6 v q X
12	40.4	40.	29.933	40.8	SSW	18.	—	—	6 m GS. X.
13	43.3	42.2	29.570	43.9	SSW	120.	0.060	0.	6 v? m d X.
14	41.	41.	29.829	41.8	E 1/2 S	25.	0.230	—	6 v m X. KS
15	41.	39.2	29.862	38.9	S 1/2 E	57.	—	—	6 m X
16	45.7	42.2	29.627	46.5	SSW	166.	—	—	6 v X.
17	42.1	42.	29.600	42.9	SE	225.	—	—	6 v q m X.
18	42.	43.	29.647	42.5	SE	235.	—	—	6 v m q X. GS through which Sun shines
19	36	39.8	29.666	36.7	E	357.	—	—	6 v q q X.
20	37.1	38.	29.839	37.1	E	235.	—	—	6 v q specks of X
21	31.5	35.8	29.962	31.5	W6S	45.	—	—	6 m X.
22	40.6	37.4	29.994	40.9	N6E	23.	—	—	6 v X.
23	38.7	38.2	29.841	38.2	NNW	85.	—	—	6 v q. d X. X
24	40.	39.	29.760	40.2	NW	54.	0.006	—	6 v. S. X. KS slight snow in night
25	45.2	41.	29.439	45.7	W	147.	0.126	0.156	6 v q X.
26	39.1	38.2	29.612	39.2	N6E	78.	0.140	0.135	6 v X.
27	40.2	37.2	29.950	40.	W	43.	0.009	—	6 v GS X. S very bright halo
28	44.8	39.5	29.759	44.7	SW	37.	0.424	0.480	0 m r X.
29	46.5	41.6	29.849	46.2	NNW	72.	0.107	0.075	0 v X. C.S.
30	50.5	45.	29.920	50.6	SW	104.	0.	—	0 v h (30.020) X. Hyg 50.6
31	50.3	45.5	29.829	50.8	WSW	187.	0.036	0.053	0 v X. 11 1/2 clock started & wind in for 24 hours
	41.30	40.46	29.714			4041	2.31.0	2.254	

1865	10 P.M.			Moisture	Wind		Heat		
March	E	A	Bar	Hyg.	Dir.	Miles	Max	Min	
1	45.1	45.	29.500	45.1	SW	14.6	50.4	41.6	0. 2. 9.
2	33.6	42.2	29.927	44.9	SW	141	48.	31.4	b. v. C. KS.
3	37.4	41.8	30.023	33.1	SSTW	119	46.	34.4	6. v. CS. KS
4	33.6	39.4	29.360	37.8	SWBS	233	47.2	34.2	6. v. KS in NW.
5	32.6	40.	29.028	36.4	N.WW	158	46.5	31.0	6. v. KS C slight aurora.
6	33.6	39.8	29.490	33.	N.WW	169	46.5	30.4	6. v. KS. K.
7	33.	39.	29.497	33.4	SE	74	46.4	32.3	6. m. CK. S?
8	34.6	39.5	29.900	32.6	NW	154	43.	30.5	6. v. CK. K. KS. snow during the day now lying on ground
9	38.2	41.2	29.816	34.8	S	68	45.	29.2	6. v. KS.
10	39.8	42.	29.684	32.8	N.WW	229	48.2	38.5	6. v. KS.
11	31.	39.	29.970	36.2	SSTW	99	45.6	30.3	6. v. m.
12	38.2	42.2	29.847	36.9	SEW	114	49.	28.9	6. v. r. KS
13	38.	41.	29.646	30.3	N.WW	81	46.	38.5	6. v. m. KB. CK. K.
14	36.9	40.2	29.895	38.2	SE	73	44.	36.0	6. v. CK. KS.
15	40.1	42.1	29.731	37.9	SSE	153	46.8	32.5	6. v. KS.
16	41.8	42.9	29.562	37.5	SSE	224	48.5	39.0	6. v. GS KS a few stars at 3
17	40.1	42.	29.602	37.1	SE	261	46.	39.6	6. v. 0. g. 9.
18	37.4	40.8	29.640	37.2	E	257	45.	36.8	6. v. 0. g. 9.
19	33.7	37.2	29.701	37.9	E	315	42.4	31.0	6. v. 0. g. 9.
20	30.9	37.1	29.968	30.9	SE	111	42.8	27.0	6. v. 0. g. 9.
21	35.	38.2	29.932	31.7	N.WW	64	42.	25.7	6. v. 0. g. 9.
22	34.2	39.	29.935	32.6	N.WW	87	45.	28.0	6. v. 0. g. 9.
23	33.	39.3	29.797	34.8	NW	76	46.	30.2	6. v. KS.
24	33.2	39.8	29.752	31.4	NW	85	45.	31.6	6. v. 0. g. 9.
25	35.	40.3	29.375	33.5	N.WW	157	47.3	33.9	6. v. KS.
26	31.0	38.5	29.832	31.5	NNW	109	46.	30.5	6. v. KS.
27	35.3	38.3	29.688	32.8	SSTW	164	45.2	29.5	6. v. 0. g. d. occasional aurora after 11 PM
28	44.1	41.2	29.731	31.2	NW	89	48.1	35.0	6. v. 0. g. d. CS. KS.
29	41.2	42.2	29.945	30.8	N.WW		52.	38.5	6. v. 0. g. d. stars through cirro-stratus.
30	48.	45.	29.943	31.1	S	last	54.5	38.4	6. v. 0. g. d. KS
31	44.3	47.	29.802	44.1	SWNW	164	60.2	44.7	6. v. KS.
	36.92	40.43	29.723	44.4		4154	46.73	33.26	
				43.4				33.6	

1865	10 AM			Moist ⁿ	Wind		Rain			
April	E	A	Bar	Hyg ⁿ	Dir	Miles	Squ	Round		
1	48	46	29.927	48.2 43.2	W6S	110	0.029	0.027	$\frac{1}{2}$ v q	X
2	48.1	46	29.684	48.2 42.7	S	115	—	—	$\frac{1}{2}$ v q	X
3	47	45.4	29.601	47.1 44.9	S	204	0.002	0.001	o. v ? m	XS
4	49	45	29.792	48.2 45.2	SW6S	152	0.070	0.074	o v q	XS
5	54.8	47.2	29.950	54.9 51	SSW	128	0.003	0.008	o. v h	XS
6	53.2	49.5	29.832	53.8 51.4	SW	212	—	—	o. v h g	XS
7	53.4	48.2	29.893	53.8 48.8	SW6W	164	0.040	0.132	o v	XS X
8	53.9	45.4	29.800	54.2 49.4	SW6W	173	0.005	0.004	o v q	XS G CS
9	57	48.2	30.090	57.1 46.1	E6N	56	—	—	$\frac{1}{2}$ v	BS.S
10	56.7	49	30.130	57.8 49.8	W	82	—	—	$\frac{1}{2}$ v	X. XS
11	57	48.2	30.064	57.1 51.5	SSW	27	—	—	$\frac{1}{2}$ v	X
12	52.7	50.5	29.840	53.2 49.4	ENE	35	0.097	0.080	2 o v h	CS X XS
13	52.7	51	29.766	52.9 49	W	42	0.242	0.218	$\frac{1}{2}$ v	XS. BS. X
14	47	48	29.920	47.6 44.8	NESE	57	0	—	o v	XS. N in SE
15	49.1	47	30.032	49 45.2	SE	30	—	—	$\frac{1}{2}$ v	X
16	56.6	47.2	29.988	56.3 51.5	NE	26	—	—	$\frac{1}{2}$ v ? h	X
17	50	50	29.742	50 49.8	NE	32	0.054	0.086	o in r	
18	45.9	49	29.870	46.5 43.1	N	98	0.391	0.313	o v q	XS
19	46.4	47.1	30.085	47.3 44.1	NNE	123	0.052	0.051	o. v.	KS. S.
20	50.3	48.4	30.131	51.1 48.3	N6E	31	—	—	o. m.	KS. S.
21	52.1	49	30.135	53 50	N66N	77	—	—	$\frac{1}{2}$ v. h.	KS. K. CK.
22	56	49.2	30.035	56 52	E6S	62	—	—	$\frac{1}{2}$ v. h.	
23	57.1	51.6	30.124	57.4 49.6	ESE	90	—	—	$\frac{1}{2}$ v. h.	CS.
24	57.5	52	30.166	57.7 50.7	E6N	63	—	—	$\frac{1}{2}$ v. h.	CS. S.
25	59	51.8	30.088	59.1 54.1	N	25	—	—	$\frac{1}{2}$ v.	
26	54.5	54.3	30.063	54.1 51.1	NNW	30	—	—	10. v.	K. KS.
27	53.1	54.2	29.935	53.8 51	N66N	41	—	—	o. v.	KS.S
28	52	52.8	29.910	52.2 50	N66N	68	—	—	$\frac{1}{2}$ v.	CK. K.
29	46	50.1	29.903	46.2 40.6	E	117	—	—	$\frac{1}{2}$ v.	K.
30	48.8	49.2	29.763	48.6 42.3	ESE	117	—	—	$\frac{1}{2}$ v.	K.
	52.01	48.78	29.909			2633	0.985	0.994		

1865

10 P.M.

Moist^{ure}

Wind

Thermo^{metry}

April

E

A

Bar

Hyg^{rometry}

Dir.

Miles

Max:

Min

1	39.1	46.2	29.900	39.4	SSW	96	52.	36.9	b ₂ . V. CK
2	42.	45.	29.472	42.3	SE	250	54	36.	o v q KS
3	41.5	46.	29.797	41.7	W	59	52.7	41.3	b ₂ . V. CK.
4	48.	47.6	29.831	48.2	SWW	225	52.3	39.4	b ₃ . V. q. KS. K.
5	49.8	49.6	29.935	50.1	SW	232	59.1	45.7	o. V. CK. KS. K.
6	45.2	49.3	29.797	45.6	SW	288	59.1	44.8	b ₁₀ . V. K.
7	47.8	49.	29.786	47.6	S	149	57.	41.8	o. V. KS. CB.
8	43.	50.	30.007	43.8	SWW	134	59.1	43.6	o. V. KS.
9	45.9	51.2	30.060	46.2	WbN	47	60.4	41.	o v S
10	40.4	50.2	30.133	41.1	SWW	89	58.	40.3	b ₂ . V. K in SE horizon.
11	48.5	51.6	29.443	49.4	WbN	79	63.3	39.3	b ₁ . V. CK.
12	49.6	52.	29.697	49.6	WbN	65	58.	46.1	o. V. KS. n. Thunder at 7 $\frac{1}{2}$ PM.
13	40.3	49.4	29.873	40.3	N	26	60.	41.5	b ₈ . V. KS. + heavy rain.
14	42.3	49.	29.984	42.6	NE	79	53.2	39.9	b ₆ . V. KS.
15	41.1	48.3	30.000	41.5	SWW	78	56.	34.8	b ₁₁ . V. bright auroral arch in NW.
16	48.5	52.2	29.901	48.2	SW	117	63.5	36.1	b ₉ . V. s. very bright auroral arch in NW.
17	48.2	52.1	29.697	48.4	WNW	40	58.6	44.6	o. V. n.
18	44.7	48.	30.055	44.2	SWW	164	51.7	43.8	o. V. K. KS.
19	46.3	48.7	30.071	46.6	NE	74	50.	44.4	o. V. K. KS.
20	47.1	50.	30.170	46.6	SWW	81	56.6	45.9	o. V. K. KS.
21	46.7	51.6	30.072	46.7	NE	96	60.9	44.4	b ₁₀ . K.
22	52.2	53.6	30.093	52.4	SWW	95	65.4	41.5	b ₁₀ . V.
23	50.4	54.8	30.164	51.4	SWW	94	65.1	44.8	b ₉ . V. CS. in N.
24	50.5	56.2	30.117	51.5	SWW	60	66.8	43.5	b ₁₀ . V.
25	48.6	55.3	30.085	48.2	SWW	84	66.8	44.4	o. V. K. (at 11 $\frac{1}{2}$)
26	48.	56.	30.040	48.5	NE	68	64.8	48.5	o. V. s.
27	46.9	55.8	29.915	47.8	NE	57	65.4	47.8	b ₁₀ . V.
28	44.5	52.7	29.930	44.1	E	158	61.	43.8	o. V. KS. s
29	40.	49.	29.820	40.2	SWW	176	52.	37.9	b ₁₀ . V.
30	42.5	50.2	29.672	42.1	SW	128	53.3	37.3	b ₁₀ . V. s. CS. KS.

45.65 50.63 29.917

3388

58.40

41.45

58.7

41.9

11. Suppose $\mathcal{L}_1$ is the set of all strings of length n such that the number of 1's in the string is even. Is $\mathcal{L}_1$ a regular language? If so, give a regular expression for $\mathcal{L}_1$.

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

[illegible]

1. The first step in the process of identifying a problem is to define the problem. This involves identifying the symptoms of the problem and determining the scope of the problem. Once the problem has been defined, the next step is to identify the causes of the problem. This involves identifying the factors that are contributing to the problem and determining the underlying causes. Once the causes have been identified, the next step is to develop a plan of action. This involves identifying the steps that need to be taken to solve the problem and determining the resources that will be needed to implement the plan. Finally, the last step in the process is to implement the plan and monitor the results. This involves putting the plan into action and tracking the progress of the solution. Once the problem has been solved, the final step is to evaluate the results and determine if the solution was effective.

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26



1865	10 AM			Moist ^{ure}	Wind		Rain		
May	E	A	Bar	Hyg ²	Dir	Space Miles	Squ:	R:	
1	51.1	51.4	29.580	51.2 50.6	SW	102	0.060	0.042	o. m. drizzle
2	55.7	52.8	29.438	56.5 50.6	SW	232	0.135	0.114	b. v. K. CK.
3	53.7	53.4	29.327	54.5 51.4	SW	230	0.222	0.267	b. v. K. very showery.
4	55.	50.	29.472	55.1 48.	SW	168	0.130	0.128	b. v. K. CK.
5	48.2	51.1	29.471	49.5 47.5	NbE	89	0.065	0.060	o. much rain -
6	52.	52.	29.577	52.6 51.	SW	112	1.600	1.350	o. v. K.
7	56.	52.	29.848	56.6 53.	NE	33	0.065	0.042	b. v. K.
8	52.5	51.4	29.837	54.9 50.9	N	25	0.001	0.003	b. v. K. KS. CK.
9	50.3	50.2	29.683	50.1	N	102	—	—	b. v. KS. CS. C.
10	46.9	49.5	29.550	47.6 42.6	N.	109	0.013	0.010	o. v. K. KS.
11	50.	48.4	29.580	50.4 44.8	NbN	88	0.010	0.010	o. v. K. S.
12	45.	48.2	29.717	45.6 42.9	NE	52	0.146	0.129	o. v. K. N. showery.
13	54.6	49.2	29.785	53.1 48.8	N	22	0.050	0.037	b. v. K. KS. (at 10.25)
14	50.1	50.2	29.727	50.9 45.3	N	20	—	—	o. v. KS. S
15	55.	50.	29.325	55.2 48.5	WSW	25	0.141	0.143	b. v. K. CK.
16	53.2	49.	29.373	53.9 48.4	SSW	130	0.050	open.	o. v. q. K.
17	50.9	50.2	29.440	51.3 48.2	S	157	0.080	0.080	o. v. K. KS. CK. showery
18	56.7	49.8	29.837	56.7 50.7	SW	140	0.020	0.027	b. v. q. K. CK. C.
19	54.5	52.4	29.877	55.1 51.1	SW	104	0.0	—	o. v. q. K. KS.
20	60.	55.	30.111	60.8 55.6	SWbS	160	—	—	o. v. KS.
21	63.4	54.4	29.915	63.9 51.9	EbS	45	—	—	b. v. h. CK. S in North
22	65.1	56.2	29.764	66.2 60.8	SS E	58	0.002	0.002	b. v. CK. K.
23	66.4	57.8	29.822	66.9 59.1	EbS	49.	—	—	b. v. CK. KS.
24	66.	59.4	29.833	66.8 59.	SWbS	42.	—	—	b. v. h. CK. K. CS.
25	59.7	58.7	29.860	60.3 55.5	SW	92	—	—	o. v. KS. S.
26	52.6	57.6	29.683	55.3 53.6	SEbS	48	0.120	0.089	o. m. heavy rain -
27	59.4	56.5	29.535	60.9 53.9	S	145	0.218	0.145	o. v. K. CK
28	58.1	55.8	29.396	58.7 51.9	WSW	156	0.015	0.017	b. v. K. CK. showery
29	50.4	55.2	29.460	51.9 50.2	WNW	70	0.322	0.294	o. v. rain.
30	53.4	54.9	29.559	53.7 49.1	E $\frac{1}{2}$ N	110	1.741	1.330	o. v. KS. K
31	56.3	53.3	29.798	56.9 50.	NE	26	—	—	b. v. K. CK.
4.360									
55.04 52.80 29.651						2939	5.206	4.369	x. RB. The reading of the square gauge on the 16 th was assumed in summing the found.

1865

10 P.M.

Moist

Wind

Thermo^{ro}

May

E

A

Bar

Hyg^o

Dir

Miles

Max

Min

1	50.5	52.9	29.420	51.1	SE	163	60.	48.1	o. v. q. Ks. S.
2	51.4	53.6	29.417	52.1	S	218	64.	47.7	o. v. q. z. n. K. Ks.
3	42.1	51.1	29.337	42.6	SSW	160	60.	42.5	b. v. q. K. Ks. CK. heavy showers during evening -
4	45.2	52.1	29.539	45.5	S	132	60.	40.8	b. v. c. cs. strong, halo round moon -
5	49.7	51.6	29.421	50.1	NbbE	108	52.3	45.6	o. q. drizzle -
6	49.	52.5	29.787	49.6	NW	102	57.1	49.4	o. v. S. Ks.
7	47	54.	29.865	47.4	NbbN	63	62.	48.5	b. v. K. CK.
8	47.7	53.4	29.944	48.1	NNE	51	61.1	42.4	b. v. K. Ks.
9	43.5	50.	29.619	43.1	N.	147	54.	43.6	o. q. light rain -
10	42.2	49.1	29.572	42.6	N	123	52.	42.5	o. v. showery. Ks. S.
11	43.4	50.1	29.651	43.3	N	76	54.	38.7	o. q. rain -
12	44.	49.	29.770	44.2	NbbE	43	50.	42.5	o. m. showery -
13	47.2	51.2	29.848	47.5	NNE	33	57.6	43.5	o. q. Ks.
14	47.1	52.	29.457	47.4	SE	112	56.	46.	o. v. Ks. S
15	40.1	50.1	29.400	40.6	SW	107	55.9	41.3	b. v. Ks. K. showery
16	47.2	50.	29.253	47.9	SWbW	261	55.8	39.3	o. v. q. Ks. K. showery
17	47.1	51.	29.592	47.8	WSW	212	58.	44.9	b. v. q. K. Ks. CK.
18	51.1	53.3	29.887	51.4	SW	184	62.	42.1	o. v. Ks.
19	55.4	54.4	30.042	55.1	SW	214	59.6	49.6	o. v. q. Ks. S.
20	54.3	55.6	30.077	54.6	SS E	64	64.	52.6	b. v. S. round horizon.
21	58.0	57.2	29.755	58.2	NbbE	89	69.	47.3	o. v. K. CK. Lightning in N. no thunder
22	57.	59.6	29.772	57.7	SSW	84	71.	54.5	b. v. S in N horizon.
23	59.	61.3	29.795	59.8	S	90	71.9	51.9	o. v. S. cs.
24	52.9	61.	29.868	53.4	SWbS	93	72.	51.2	b. v. cs.
25	54.4	60.	29.848	54.3	SEbS	153	66.	49.8	b. v. Ks. S
26	52.	57.2	29.585	52.6	S	152	59.1	52.9	b. v. cs. c.
27	52.	56.9	29.377	52.7	SW	222	65.3	49.1	b. v. K. CK. cs.
28	51.1	57.1	29.575	52.1	SWbS	137	63.8	48.4	o. v. S.
29	48.7	54.1	29.191	48.1	N	94	52.4	48.1	o. m. z. much rain all day without stop -
30	47.2	55.2	29.727	47.8	NWbW	44	61.1	46.	b. v. K. Ks. cs. S.
31	45.5	55.1	29.765	46.1	SS E	33	60.5	43.2	b. v. S.

(60.11)

49.30 53.60 29.650

3764

60.30

46.3V

1865	10 A.M.			Moisture	Wind		Rain		
June	E	A	Bar	Hgg ²	Dir	Miles	Sqn.	R	
1	57.1	53.7	29.659	57.93	SE	40	—	—	o. v. Ks. cs. n. in SVE—
2	54.1	54.6	29.507	55.1	SE	115	0.050	0.043	o. m. S. Ks.
3	62.3	55.8	29.739	62.9	WbS	50.	0.031	0.023	o. m. K. n. (at 10.20 ^m)
4	63.4	55.1	30.047	63.9	WSW	53.	—	0.004	o. v. K. Ks. do
5	63.1	58.	30.023	64.1	SWbS	118.0	—	—	o. v. K. Ks. (at 9.40 ^m)
6	62.1	60.1	30.127	62.1	WbS	134.	0.036	0.028	b. v. q. K. CK. (at 10.30)
7	65.2	61.	30.297	65.4	EbS	18.	—	—	b. v. wind very variable—
8	74.	62.1	30.253	75.	WbS	43	—	—	b. v. CK. at 9.38 ^m
9	66.5	63.5	30.288	67.2	NTW	44	—	—	b. v. K. CK. at 10.20 ^m
10	62.7	62.5	30.104	63.6	NNE	40	—	—	b. v. K. Ks. S. CK.
11	56.	60.1	30.205	57.1	NbW	57	—	—	b. v. K. Ks. at 10.25 ^m
12	59.4	58.1	30.320	59.4	WNW	31	—	—	b. v. K. CK. C. cs.
13	60.1	60.2	30.373	60.4	NbW	20	—	—	b. v. K. CK. at 10.25 ^m
14	58.9	60.	30.280	59.6	NbW	35	—	—	b. v. cs.
15	62.4	61.1	30.303	62.8	NbS	43	—	—	b. v. cs. Ks. CK
16	60.3	59.6	30.351	61.4	NbS	48	—	—	o. h. Ks uniform grey cloud—
17	68.3	60.1	30.343	69.	NNE	28	—	—	b. v. h towards North.
18	64.4	61.	30.247	64.7	NE	43	—	—	b. v. do
19	67.1	61.2	30.215	67.3	EbS	51	—	—	b. v. do
20	65.	63.1	30.212	65.2	NbS	54	—	—	b. v. h
21	72.2	62.7	30.178	72.4	EbS	29	—	—	b. v. h
22	72.2	65.4	30.123	73.1	SWbW	83	—	—	b. v. h. CK. cs.
23	67.7	66.5	29.921	68.7	WSW	124	—	—	o. v. K. n in SW—
24	61.9	62.	30.081	63.4	W	44	0.210	0.173	o. v. K. Ks (at 10.20)
25	63.	62.2	29.961	63.5	WbS	84	—	—	b. v. K. Ks. do
26	61.	63.1	30.000	61.6	NTW	63	—	—	o. v. K. Ks.
27	66	62.9	30.051	67.4	N	6	—	—	o. v. Ks. S
28	68.8	63.6	29.767	70.2	SbE	141	—	—	o. v. q. Ks. K
29	59.	62.1	29.398	59.6	SEbS	79	0.276	0.211	o. v. Ks.
30	59.	61.1	29.474	60.2	NbE	144	0.141	0.120	b. v. q. K. CK
	63.61	60.78	30.065			1862	0.744	0.632	

1865

10 R.M.

Moisture

Wind

Heat

June

E

A

Bar

Hyg.^oDir.^o

Miles

Max

Min

1	53.1	55.6	29.553	52.8 52.6	SEbS	150	61.8	42.8	o. rain.	
2	51.1	55.3	29.545	51.9 50.2	SSW	73	61.9	51.1	o. V.	K. KS.
3	48.5	56.1	29.987	49.1 48.1	WbS	57	63.6	50.7	b. m.	C. CS.
4	58.6	58.1	30.016	52.6 50.4	SWbS	106	65.7	46.3	o. V.	S. KS.
5	58.9	60.1	30.137	52.9 50.9	SWbW	126	72.1	56.9	o. V.	S. (at 10.20)
6	57.	61.6	30.252	57.6 54.8	NW	71	71.	57.8	b. V.	K.
7	58.7	63.6	30.295	59.7 53.5	WSW	67	73.5	56.	b. V.	
8	59.	65.1	30.303	58.7 52.2	NNW	111.	77.1	55.7	o. V.	K. CK.
9	53.6	65.	30.187	54.7 51.9	EbN	46	70.6	55.6	b. V.	CS.
10	51.8	62.1	30.133	52.3 48.3	NW	83	66.9	53.4	o. V.	K. KS.
11	50.	61.	30.277	50.1 46.2	N	69	62.8	51.3	b. V.	KS. S.
12	51.	62.2	30.367	51.4 50.1	NNE	46	68.7	44.7	b. V.	
13	50.	62.	30.335	50.5 49.4	NE	77	66.8	48.2	b. V.	CS.
14	55.1	63.2	30.283	55.9 54.	NE	33	71.8	47.9	b. h.	CS.
15	51.4	59.8	30.333	51.9 50.4	N	88	67.	51.1	b. V.	
16	54.1	61.9	30.388	54.1 52.1	NbE	63	68.4	50.2	b. V.	
17	54.4	61.9	30.275	54.9 52.8	NbN	70	75.	51.7	b. V.	
18	52.4	62.	30.228	52.6 51.4	NNE	104	70.	51.6	b. V.	
19	58.2	65.2	30.189	59.4 56.6	SWbS	38	77.4	50.8	b. V.	
20	56.1	61.1	30.230	57.7 55.7	NbN	56	76.	55.4	b. V.	
21	63.6	66.3	30.111	64.6 62.1	SbW	101	79.2	52.7	b. V. g.	C. CS (at 10.40 ²)
22	63.	68.3	30.079	64.8 60.8	WSW	101	78.7	59.1	b. V.	C. CS. S
23	57.3	62.5	30.050	58.4 50.4	WbS	95	69.6	52.5	b. V.	K. KS. (at 12.15 ²)
24	55.	63.2	30.052	55.9 52.9	WbS	73	66.2	51.5	o. V.	K.
25	57.3	63.1	29.926	58.1 55.8	WSW	110	66.4	55.8	o. V.	KS. S.
26	58.3	63.1	30.071	59. 56.9	NW	40	66.3	58.	o. V.	KS. S.
27	59.3	64.	29.907	60.1 58.7	SE	115	72.	58.5	o. V.	KS. S. K.
28	59.2	64.3	29.601	60.1 58.	SE	148	71.	59.0	o. V.	K. KS. S.
29	56.7	63.7	29.370	57.6 56.1	EbS	114	66.1	56.6	o. V.	rain.
30	50.6	62.4	29.628	50.9 49.	NNW	122	66.6	51.	b. V.	K. KS.

55.24 62.09 30.066

2553

69.30

52.37

69.70

52.81

1865	10 A.M.			Moist ^{re}	Wind		Rain		
July	E	A	Bar	Wet	Dir. ⁿ	Space Miles	Sq	R.	
1	65.	59.2	29.726	65.2	NWbN	24	—	—	b ₈ V. K. strongly marked.
2	68.3	61.4	29.812	66.8	SWbW	141	—	—	o. V. K. CK.
3	69.4	64.7	29.787	70.5	S	132	—	—	b ₅ V. K. CK. C.
4	61.1	63.2	29.575	61.2	SE	203	0.040	0.016	o. m. much rain.
5	67.1	63.1	29.717	68.2	SW	130	0.137	0.180	b. V. K.
6	66.9	64.	29.691	67.9	S	80	0.050	0.043	b. V. K. CK.
7	67.	64.6	29.375	66.4	SW	67	0.195	0.175	b ₁ V. K. CK.
8	62.1	64.2	29.490	63.7	NbE	114	0.145	0.114	b ₁ V. K. KS.
9	63.1	62.8	29.741	63.5	WNW	36	—	—	o. V. K.
10	62.3	59.4	29.623	63.7	WSW	61	0.055	0.055	b. V. K. (at 10 ^h 17 ^m)
11	57.	58.7	29.613	57.6	NbW	66.	0.281	0.248	b ₁ V. K.
12	58.9	58.	29.813	59.5	WbS	64	—	—	b ₁ V. K. KS.
13	62.1	61.5	29.428	62.6	SWbS	158	0.048	0.041	o. V. q. showers. K. n.
14	62.5	60.1	29.427	63.4	SSW	149	0.236	0.149	b. V. q. K. CK Bar. leaving.
15	62.	61.4	29.347	63.5	S	167	0.140	0.150	o. V. q. K. KS. n. showers.
16	57.8	61.6	29.791	60.3	NW	124	—	—	o. m. KS. K. n.
17	63.	60.	29.820	63.8	SWbW	67	—	—	b ₁ V. K.
18	58.6	60.9	29.530	57.8	SE	95	0.037	0.030	o. V. light rain - K. n.
19	64.3	59.8	29.484	65.3	SEbS	110	0.900	0.582	b ₂ V. K.
20	65.	60.2	29.430	66.4	SBW	125	0.026	0.026	b ₂ V. K. CK
21	64.7	60.2	29.578	65.6	SBW	115	0.091	0.079	b ₁ V. q. K. CK.
22	68.9	61.9	29.550	67.7	S	91	0.028	0.028	b ₂ V. K. CK.
23	70.6	63.6	29.724	70.8	WNW	32	—	—	o. V. h. CK. K
24	70.3	64.	30.032	71.2	SW	25	0.042	0.041	b ₂ V. K. GS
25	69.8	66.	30.127	71.5	SW	58	0.003	—	v o KS
26	68.5	65.	30.227	69.1	SW	14	—	—	o. V. K. KS
27	62.7	64.6	30.104	63.4	WbN	98	—	—	b ₁ V. K.
28	59.3	60.2	30.050	60.1	WSW	102	—	—	o. V. q. KS. (at 9 ^h 25 ^m)
29	63.7	63.	29.854	64.2	W	124	—	—	o v 2 KS. GS
30	61.	60.2	29.882	61.1	N.VW	66	0.039	0.050	b ₂ V. K. KS
31	56.4	59.	29.732	57.1	N.WW	24	0.026	0.030	b ₁ V. KS. K.
	63.79	62.15	29.712			2765	2.480	2.037	

1865	10 P.M.			Moist.	Wind		Heat			
July	E	A	Bar.	Dry Wet	Dir:	Space miles	Max ^m	Min ^m		
1	50.9	62.3	29.788	52.2 51.	N E S S	43	73.1	46.8	b. V.	Ks. (at 11.5 ^m)
2	61.6	65.2	29.813	61.6 58.8	S b W	48	74.6	50.1	o. V.	cs. s. c.
3	58.3	65.	29.715	58.8 56.6	S S E	192	73.5	59.8	b. v. g.	cs. c. ck.
4	61.1	64.4	29.580	62.1 58.4	S	189	71.	58.6	b. V.	K. Ks.
5	59.6	65.4	29.739	60.6 58.3	S S W	124	74.4	55.6	b. V.	K. CK. heavy & short showers during the evening
6	58.9	65.8	29.513	59.3 57.3	E b N	96	72.	57.4	o. m.	rain.
7	57.8	66.1	29.386	58.8 57.1	S S W	106	73.	59.4	b. V.	Ks. CK. c. A.
8	57.7	64.1	29.693	55.1 52.1	N W S W	63	68.1	56.5	o. V.	Ks.
9	51.7	62.	29.735	52.5 51.5	N W	26	62.	57.2	b. V.	s. cs. ck. k.
10	50.3	60.	29.557	51.1 50.1	S W	66	65.4	46.6	b. V.	K. Ks.
11	50.6	60.	29.763	51. 50.5	N N W	66	64.5	48.8	b. V.	Ks. cs. c.
12	57.9	60.2	29.621	55.6 53.1	S b W	98	67.	46.7	o. V.	s.
13	57.8	61.	29.458	55.4 52.1	S W b S	160	68.8	55.1	b. V.	cs.
14	58.5	62.5	29.535	59.5 55.4	S	157+	69.3	54.7	o. V.	K. Ks.
15	60.	63.2	29.436	61. 60.4	S W b S	98	72.	59.1	b. V.	K. n. showery -
16	53.5	61.5	29.823	57.5 54.5	S W b S	35	68.5	55.0	b. V.	s. cs.
17	56.3	62.	29.703	53.3 51.3	S E	93	69.	49.9	b. V.	Ks. - K.
18	50.8	59.8	29.440	51.3 51.1	S S W	138	64.3	52.5	b. V.	c. ck. K. heavy showers during day
19	56.7	60.9	29.422	57.6 54.6	S S E	238	62.	51.2	o. V.	K. (at 10.15) g. & frequent.
20	55.7	61.	29.478	56.4 53.2	S b E	142	67.2	55.0	b. V.	c. cs. s. g. & frequent.
21	57.8	62.5	29.559	58.4 56.2	S S E	147	69.4	55.0	b. V.	c. cs.
22	57.9	64.5	29.604	58.6 57.3	S E	44	62.7	57.6	b. V.	s.
23	60.	64	29.924	61. 59	N	31	74.	57.0	o. V.	Ks. - CK
24	63.7	66.6	30.055	64.7 61.7	S W	83	74.3	59.3	o. V.	Ks. cs.
25	61.	64.7	30.202	61.8 59.6	N W	42	71.	62.6	o. V.	Ks.
26	63.	66.7	30.113	63.9 61.3	S W	98	72.	61.0	o. V.	Ks.
27	57.7	63.3	30.145	59.3 56.3	W S W	105	67.	56.0	o. V.	Ks.
28	58.2	62.6	29.970	59. 56.	W S W	122	67.6	52.5	o. V.	g. Ks.
29	52.7	60.4	29.798	53.6 50.1	N b S	101	65.8	53.5	b. V.	Ks.
30	51.5	61	29.839	52.8 50.6	N E	31	65.	51.0	o. V.	Ks.
31	48.7	56.4	29.698	49.1 46.	N W b N	92	60.7	50.0	b. V.	Ks. c. cs.
	56.32	62.75	29.713			3071	68.60	54.45		
							68.8	54.5		

1865	10 A.M.			Thyress.	Wind.		Rain.					
August	E.	A.	Bar.	Dry } Wet }	Dir ?	Space miles	Sq.	R.				
1	55.9	57.2	29.681	56.8 50.1	NW	50	—	—	6 v	KS	K	6S
2	49.1	55.5	29.511	49.5 42.7	NW	49	0.231	0.238	0. v	2	KS.	h
3	59.1	56.2	29.727	57.2 52.3	N.W.W	48	0.063	0.074	6 v	K. CS.		
4	60.3	57	29.857	52.1 52.1	W.N.W	29	—	—	6 v	K. CK arranged in parallel		
5	61.3	59.	29.854	58.9 58.1	SSW	59	0.042	0.048	v. m	K	KS	
6	64.3	60.2	29.682	59.7 59.2	SW	103	0.244	0.258	v. m.	KS		
7	62.5	60	29.690	59.2 59.2	SW & W	81	0.093	0.095	0 v	KS		
8	63.8	60	29.871	59.2 59.2	NW	19	—	—	6 v	K KS. (6)		
9	64.8	61.5	29.688	59.2 61	SSW	100	0.062	0.070	0 v h	KS		
10	62	61	29.408	60.3 60.3	W & N	54	0.302	0.332	0 v h d	KS		
11	61	60	29.146	62.2 59.2	SW & W	108	0.431	0.458	0 v	KS 6X		
12	62	60	29.431	62.6 58.6	SE	107	0	—	6 v	K. G		
13	61.2	59.	29.274	62.5 62.5	SW & W	114.5	0.417	0.350	6 v q	KS. K		
14	59.5	58	29.421	59.5 59.5	SW & W	72	0.086	0.107	6 v	KS K N. North		
15	59.6	59.5	29.268	60.5 57.7	N	51	0.110	0.118	0 v	KS		
16	61.4	59.2	29.360	61.7 58.7	NW & W	111	0.014	0.010	6 v r	KS G N. WNW		
17	57.1	58.5	29.401	57.1 56.1	W & S	144	0.171	0.194	0 v h q r	KS N		
18	62	60	29.736	62.9 58.9	NE	42	0.029	0.038	6 v	K KS		
19	63	59.2	29.770	63.9 58.9	NW	14	0	0	6 v h	K 6K C		
20	63	60.2	29.482	64 61	SE	75	0.012	0.010	0 v h d q	KS N. SE.		
21	63.7	61	29.560	64.8 58.8	W & S W	4.4	0.233	0.250	6 v	K		
22	64.2	62.5	29.525	64.4 60.6	W & S W	18	0.335	0.320	6 v	K		
23	60.1	61	29.415	61.2 58.2	NE	66	—	0.06	0 f	KS		
24	63.1	61	29.680	62.9 57.9	NE & E	71	—	—	6 v q	K		
25	62.5	61.5	29.991	63.7 58.7	SE	50	0.003	0.008	0 v	KS K		
26	66.7	64.4	30.062	67.6 61.2	SW	81	0	—	0 v	6S K a bright halo		
27	60.5	62	29.892	61.2 58.2	SW	132	0.010	0.008	0 v h m	KS K N. WNW		
28	58.3	61	29.612	58.5 57.9	SW	79	0.096	0.080	0 m r	(the rain fell in life than an hour)		
29	57.9	58	29.910	58.1 56.1	W & S W	79	0.293	0.328	0 m r			
30	61.9	58.8	30.160	61.2 58.8	W	63	0.005	0.020	0 v h	K KS		
31	67.3	61.2	29.898	68.1 62.9	W	90	0.	0.040	6 v	C. K. CS.		
	61.27	60.05	29.644			2262	3.282	3.463				

1865 10 P.M. Hyg³ Wind. Heat

August	°	'	Bar:	Wet	Dir ²	Space	Max ²	Min	
1	48.	56.1	29.545	48.1 47.9	Wh N	57	60.2	46.8	o. v. 2 Ks.
2	46.	52.8	29.625	46.1 45.2	WNW	47	59.1	45.7	b ₂ v. K. c. c. s. at 12 ^h . brilliant aurora
3	46.	55.2	29.836	46.5 45.5	NW	1.8	63.6	45.5	b ₁₀ v.
4	57.	59.2	29.895	57.7 55.4	W	42	65.6	43.5	o. v. Ks. K.
5	58.4	61.3	29.770	58.1 58.5	S	108	65.7	56.3	b ₁ v. CK. c. K.
6	56.	61.	29.604	56.6 55.8	S	98	68.8	56.8	o v r Ks
7	55.	61.	29.825	55.4 53.3	W	57	66.2	53.2	b ₁ v. Ks. K. c s
8	57.	61.6	29.781	57.2 55.2	Sb E	59	68.6	53.5	o. v. Ks. K.
9	57.1	61.8	29.618	57.9 57.1	NNE	29	67.2	56.0	o. v. d Ks.
10	56.9	61.1	29.247	57.6 55.9	SE	109	65.3	53.0	o. v. Ks.
11	53.	60.7	29.329	53.9 51.5	SWbs	88	67.	52.1	b ₁ v. Ks. c - distant lightning at 9 ^h
12	53.8	59.1	29.305	54.3 53.7	Sb E	107	64.2	49.6	o. v. Ks. heavy showers during the day.
13	51.1	58.	29.262	51.8 50.3	S	109	65	51.0	b ₁ v. Ks some aurora 11.30
14	56.8	59.2	29.438	56.3 54.3	Sb W	84	67.2	51.7	o. v. g. Ks.
15	52.8	60.1	29.300	53.8 53.1	SW	64	66.1	55.3	o. v. g. Ks.
16	54.3	60.1	29.485	54.9 53.8	SW	64	65.1	53.8	o. v. g. Ks.
17	52.5	58.3	29.637	52.9 51.4	Wh N	106	62.	53.6	b ₁ v. Ks. at 12 ^h bright auroral arch with streamers
18	56.2	61.3	29.800	57.1 54.7	Nb N	29	68.6	51.9	o. v. g. Ks. c s. Ks black. c s faintly illuminated.
19	56.1	61.1	29.663	56.9 52.8	SS E	70	67.4	57.4	o. g. Ks. K.
20	58.3	62	29.504	58.5 58.3	SSW	85	68.4	54.5	b ₁ v. g. Ks
21	57.7	61.5	29.533	58.5 57.7	SSW	45	69.8	52.9	o. g. Ks.
22	55.	63.2	29.487	55.6 55.2	Sb E	55	71.3	56.3	b ₁ v. Ks. slight aurora 12 P.M.
23	57.3	62.1	29.479	58.1 56.1	NE	98	65.4	52.4	b ₁ g. K. Ks. slight aurora 10 P.M.
24	55.5	61.2	29.847	55.5 53.3	NE	73	65.	53.0	b ₁ g. A few stars in Zenith
25	55.7	62.1	30.050	56.3 54.2	Sb W	69	68.	55.4	b ₁₀ h.
26	58.4	63.6	30.027	58.3 57.2	SSW	146	70.6	55.0	b ₁ v. Ks. aurora behind black clouds
27	58.6	63.2	29.768	59.3 57.2	SSW	178	71.	57.0	o v g Ks. bright aurora behind thick clouds
28	49.4	59.1	29.786	49.9 48.6	WSW	65	62.1	58.0	b ₁ v. Ks. in W horizon
29	49.1	59.	30.069	49.7 48.1	W	66	65.8	46.5	b ₁₀ v
30	56.3	59.4	30.034	57.9 53.9	SWbs	87	64.	49.4	o. g. K. Ks.
31	55.	60.4	29.960	55.2 53.2	W	106	68.2	52.8	o. v. K. Ks.

54.49 60.25 29.675 2628 65.93 52.20

66.2 52.6

1865	10 All			Moist ^{re}	Wind		Rain		
September	E	A	Bar	Hyg	Dir	Miles	Squ	Reins	
1	62.5	60.	29.950	^{63.1} 57.2	WbN	83	—	—	o.v. Ks. K
2	65.6	61.7	29.935	^{66.1} 62.7	SWbW	103	0.002	0.012	o.v. K. CK
3	65.6	63.	29.994	^{66.} 62.	SW	86	0	0	o.v. r just begun Ks
4	65.2	63.5	29.888	^{66.1} 62.	SW ² S	88	0	0	o.v. bS K
5	64.7	62.3	29.875	^{65.3} 60.5	SSW	149	—	—	o.v. K. CS
6	67.8	63.8	29.842	^{68.7} 62.6	S	128	—	—	b.v. K
7	65.5	65.	29.772	^{66.6} 61.7	SSW	145	—	—	b.v. K Miles=145
8	65.7	64.5	29.562	^{66.5} 62.1	SE	194	—	—	b.v. q Ks K
9	63.4	63.	29.674	^{64.2} 58.8	S	140	0.009	0.006	b.v. q K bS bK
10	67.2	65.	29.628	^{68.3} 64.7	SW	246	0.210	0.314	o.v. q Ks - Bar uncast for the
11	68.	63.5	30.116	^{62.5} 52.5	SWbW	95	—	—	b.v. CK. K. Ks. The CK very strange
12	64.5	64.4	30.217	^{65.5} 63.5	SW	64	0.012	0.012	o.v. K. Ks.
13	62.5	63.5	30.143	^{63.5} 60.7	SSW	73	0.007	0.006	o.v. K. at 10 ¹ / ₂ #
14	63.	62.4	30.063	^{63.5} 60.5	SEbS	44	—	—	b.h. Ks. CS. C.
15	69.7	64.1	29.891	^{62.2} 52.6	S	105	—	—	b.v. Hyg = 70.27 62.63
16	64.3	65.	29.943	^{65.2} 62.7	SW	132	—	—	o.v. showers. n. K
17	60.	61.7	30.137	^{60.6} 57.2	SSW	60	0.001	0.004	b.v. K. CK. CS
18	62.	62.	30.280	^{62.5} 59.3	WSW	45	—	0.004	b.v. K
19	63.7	60.9	30.196	^{61.3} 57.2	SW	15	—	—	b.v. K
20	61.	63.2	29.795	^{62.} 58.9	S	185	—	—	o.v. q. K. Ks. S
21	56.4	58.8	30.213	^{56.6} 51.6	NWbN	50	0.067	0.065	b.v. K. CK.
22	57.3	58.4	30.244	^{57.3} 55.1	W	76	—	—	o.v. K. Ks.
23	56.4	55.5	30.375	^{56.5} 52.5	W	33	—	—	b.v. K.
24	52.9	57.8	30.348	^{53.1} 51.6	WNW	13	0.002	0.015	thick fog
25	58.3	55.7	30.241	^{58.14} 56.6	NbE	13	—	0.015	b.v. K. at 10 ¹ / ₂ #
26	65.	57.8	30.007	^{65.4} 57.6	SE	44	—	0.007	b.v. q. CS
27	64.9	59.4	29.911	^{64.4} 57.2	NWbW	26	—	—	b.h. CS. S
28	59.	58.2	30.088	^{59.7} 55.2	E	67	—	—	b.v. h bK
29	59.7	58.5	30.069	^{60.2} 57.4	SE	39	0.004	0.012	o.h. F?
30	59.8	57.3	29.944	^{60.6} 57.8	SE	18	0.004	0.008	b.h. f bS. bK.
	62.72	61.33	30.124			2556	0.318	0.480	

1865	10 PM			Mobit.	Wind		Heat				
September	E	A	Bar	Hg	Dir	Miles	Max	Min			
1	62.4	61.4	29.903	63.6 61.1	W	120	65.	54.6	0.9.9.	Ks. K	
2	62.9	63.	30.000	63.7 61.7	SW	73	71.	61.2	0. V.	Ks.	
3	60.6	64.4	29.909	61.2 59.9	SW & S	109	73.8	61.0	6 V	6	
4	56.6	65.6	29.863	57.2 55.1	SW	107	69.	57.5	6 V.	cs. c. Ks. . .	
5	61.9	64.3	29.868	62.9 60.9	SW	144	71.4	56.8	0. V.	Ks. K.	
6	60.1	65.1	29.780	60.3 57.4	SW	171	73.2	49.6	6 V.	ck. K.	
7	61.	65.5	29.745	61.9 58.4	S ₂ E	127	71.7	57.7	0. V.	Ks. K.	
8	56.3	64.2	29.611	57.1 54.4	SW	176	71.3	57.5	6 V.	Ks. cs. K.	
9	62.	65.	29.560	62.2 59.2	S	178	69.1	55.4	0. V.	2. Ks. 2.	
10	58.	64.1	29.946	58.9 56.8	WSW	198	71.	58.5	6 V	Ks. K	
11	59.8	65.1	30.202	61. 59.	SW	42	71.1	57.4	0.9.	K.	
12	60.2	64.7	30.173	61.3 59.4	SW & W	104	69.5	60.9	0.9.	K. Ks.	
13	58.6	64.4	30.137	59.4 57.9	S	67	69.4	58.8	6 V.	K.	
14	60.4	65.1	29.927	62.1 59.1	S	110	69.6	55.5	6 V.		
15	62.	66.4	29.853	63.5 60.5	SSW	108	75.	58.0	0.9.	Ks. K.	
16	58.4	65.1	30.085	54.4 52.	Wb N	49	72.	55.3	6 V.	S.	
17	55.	64.5	30.247	55.7 52.3	SSW	75	69.3	50.7	6 V.	S.	
18	55.6	63.2	30.253	52.5 49.5	S	58	70.	51.5	6 V.	S	
19	60.	64.7	30.020	60.5 56.5	S	151	71.1	48.6	6 V.	9.	
20	51.3	60.7	29.945	52.8 50.8	Wb S	90	65.8	52.5	6 V.	low aurora in N	
21	47.2	58.2	30.211	47.2 45.2	SSW	40	61.6	48.2	6 V.	S in E.	
22	47.	59.	30.344	48. 47.	WNW	22	65.	47.3	6 V.		
23	46.7	58.7	30.353	47.3 46.7	Wb N	20	63.	44.0	6 V.		
24	48.5	58.4	30.302	47.8 45.8	ESE	24	64.2	46.4	6 V.	light fog.	
25	49.8	58.9	30.135	49.7 47.7	N	42	67.4	42.0	6 V		
26	61.	63.	29.936	61.7 58.7	SE	149	69.2	45.2	6 V		
27	52.5	60.4	30.046	53.1 50.1	NbW	74	71.	50.4	6 V.	Ks.	
28	53.1	60.2	30.082	53.8 51.8	NE	88	63.7	49.7	6 V.	h. CK	
29	53.	59.2	30.015	53.1 51.1	Wb N	54	64.	49.1	6 V.	h. CK.	
30	53.7	60.	29.888	54.2 53.3	SE	83	64.7	46.2	0. h.	CK?	
						2853	68.52	52.54			
							68.80	52.9			

1865	10 AM.			Moisture	Wind		Rain		
October	E.	A.	Bar.	Hyg.	Dir.	Miles.	Sq.	Wind.	
1	59.2	58.2	29.843	59.1	E 6 S	45	—	—	o.h. f. K?
2	61.6	59.	29.767	62.2	NE	103	—	0.004	6. v. h. S. S. very thick in N
3	62.7	61.2	29.948	63.3	SE	163	0.272	0.278	6. h. B. S. (Cuckoo heard)
4	60.	61.	29.989	60.7	ESE	130	—	—	6. h. B
5	59.1	59.5	29.865	59.6	E	97	—	—	6. v. h.
6	57.5	56.8	29.873	57.3	NE	39	0.005	0.026	6. v. h. (dew of the 3 days)
7	57.1	57.	29.748	57.2	E	31	0.005	0.013	6. v. h. g. (dew)
8	55.4	58.	29.276	56.4	E N E	196	0.046	0.071	0. v. h. r. g. N. S. N 383
9	58.3	58.	29.140	59.1	E	155	0.445	0.580	0. h. d. N. S. N in E 350
10	57.1	58.	29.132	57.8	SE 6 E	47	0.092	0.106	0. v. N. S.
Hyg 11	55.	57.4	29.114	55.2	NE	69	0.332	0.410	0. m. r. N. S.
12	52.4	56.	29.300	52.4	NNW	122	1.640	1.660	0. m. r.
13	52.6	54.5	29.634	52.2	NE 6 N	54	0.309	0.280	0. v. B. S. & K
14	53.5	54.	29.730	53.5	WSW	33	0.018	0.013	0. v. m. N. S.
15	50.9	53.	29.874	51.3	W	17	0.224	0.242	6. v. N. S. round horizon
16	51.2	52.5	29.512	51.8	SS E	116	0.021	0.021	6. v. m. r. g. N. S.
17	50.1	53.	29.124	49.7	SSW	58	0.189	0.244	6. v. N. S.
18	46.9	51.	29.191	47.1	N 6 S	123	0.130	0.140	0. v. r. g. N. S.
19	45.3	52.2	29.310	45.8	WNW	11	0.006	0.004	6. v. N.
20	43.3	47.	29.304	43.3	N 6 S	57	0.002	—	6. v. N.
21	43.1	45.	29.432	43.1	SW 6 W	72	—	—	6. v. N.
22	45.	45.5	29.448	45.2	N	21	—	—	6. v. a few K to the North
23	42.1	45.	29.522	42.2	WSW	27	—	—	6. m.
24	50.	48.8	29.264	50.8	SW	134	0.067	0.073	6. v. at noon a halo round the sun.
25	50.2	49.5	29.465	50.7	NW 6 W	112	0.323	0.371	6. v. N. S. 284
26	51.1	50.	28.998	51.2	SSW	219	0.391	0.384	0. v. m. r. N. S. 286
27	46.4	47.2	28.681	46.4	SW	83	0.020	0.017	6. v. N. S.
28	41.3	44.	29.564	41.9	WSW	110	0.050	0.048	6. v. B. S. & K
29	46.8	47.6	28.649	46.3	SW 6 S	269	lost	0.240	0. m. r. N. S.
30	45.9	45.5	28.790	45.8	SW	186	0.236	0.257	6. v. h. B. S. B. S. over the whole sky 382
31	46.1	46.	29.476	46.1	NW	92	0.024	0.013	6. v. N. S. 371
	51.52	52.62	29.411			2921	6.087	6.495	
						61			
						2860			

The reading of the square gauge for 29th Inst. was assumed as that of the round, when adding up the sum total

1885	10 P.M.			Moist.	Wind		Heat			
October	E	A	Bar	8 ¹¹ wet	Dir.	Miles	Max	Min		
⊙	1	52.4	59.2	29.785	52.7 52.4	NE	96	63.	52.5	b ₁₀ V. h.
	2	59.9	61.2	29.785	60.4 56.8	SE	173	64.1	52.9	c. V. q. KS.
	3	56.6	61.4	29.981	57.2 55.2	SE	130	65.8	57.6	b ₁₀ V. h.
	4	52.5	61.	29.930	53.8 51.8	EbN	148	65.5	53.5	b ₁₀ V. sky covered with either haze or thin cirro-stratus
	5	47.3	58.1	29.845	47.4 47.1	NbW	91	66.	49.4	b ₁₀ V. h.
	6	47.1	57.2	29.863	47.3 46.9	ENE	134	63.1	41.8	b ₁₀ h.
	7	50.8	58.5	29.510	51.1 49.8	NNE	127	61	43.4	o. V. CK. KS. CS.
⊙	8	55.7	58.	29.176	55.3 55.2	E	195	58.9	50.0	o. V. KS
	9	53.6	58.3	29.143	54.1 54.	EbN	81	62.3	55.0	o. V. KS. CS.
	10	53.9	57.8	29.104	54.2 54.2	NE	77	63.	53.0	o. g.
	11	53.7	57.1	29.171	54.2 53.6	NE	clock stop	58.	53.9	o. g.
	12	50.5	55.2	29.478	51.1 49.1	NNE	72	56.7	51.0	o. g.
	13	48.3	54.8	29.711	48.9 47.3	WSW	32	56.8	49.4	o. V. KS. CK
	14	48.	54.2	29.752	48.3 48.2	NNW	35	56.8	48.8	b ₁ V. KS at 7 ³⁰ PM. Aurora in NE at 11.30. Lightning vivid in SE
⊙	15	43.6	53.	29.813	44.2 42.8	WNW	28	57.4	43.5	b ₁ V. K. KS.
	16	52.9	54.2	29.197	53.4 52.7	SSW	173	57.	44.0	o. g.
	17	47.6	54.7	29.083	47.4 47.1	NE	55	57.2	46.3	o. g. q. h.
	18	39.	49.5	29.281	39. 37.8	NNW	99	51.5	40.0	b ₁₀ V. intense Auroral arch low in NW
	19	36.9	47.9	29.265	37.2 36.5	WNW	50	51.5	34.8	b ₁ V. K. aurora all round horizon - most from W to SW. Steamers
	20	35.6	46.	29.373	35.5 35.	SW	78	49.8	35.0	b ₈ V. K. Aurora - but not so bright as last night
	21	36.4	47.9	29.456	36.5 36.2	WbN	37	51.	34.8	b ₈ V. K. S
⊙	22	38.2	46.4	29.492	38.4 37.2	NNW	65	51.1	34.0	o. g.
	23	44.6	47.9	29.387	44.9 43.	SbE	80	51.	33.5	o. g. d
	24	45.6	49.6	29.025	46. 44.9	SWbW	172	56.	42.6	o. g. z. q. KS?
	25	44.5	49.1	29.857	45. 44.6	SE	67	52.6	42.6	o. g.
	26	42.7	48.1	28.714	43. 42.	SbW	179	55.	43.4	b ₈ V. KS. Aurora very bright arch faint steamers
	27	37.	47.	29.214	36.7 35.7	NbW	76	52.2	37.0	b ₃ V. aurora
	28	40.3	44.2	29.379	40.8 36.2	SE	113	48	31.9	o. V. KS halo round O d 1 PM
⊙	29	41.5	46.	29.688	42. 40.9	SWbS	235	54	38.5	b ₂ V. KS
	30	41.9	47.2	29.100	41.9 40.	NW	43	50.6	39.4	b ₁₀ V.
	31	41.1	46.4	29.702	41.3 40.1	NW	85	51.	40.1	b ₆ V. KS. CS { sail at 0.35
		46.44	52.84	29.418			30.26 + 61	56.44	43.94	
						for 11.8 push!	30.87	56.70 ✓	44.3	

1865		10 A.M.			Moist		Wind		Rain			
November	E	A	Bar	Hyg:	Dir	Miles	Sqn	R				
1	46.7	46.	29.819	47.1	NW6W	52	0.022	0.013	6 v	X BK		
2	44.1	46.5	29.559	44.5	WSW	154	0.031	0.039	0 v q r	KS		
3	43.4	44.2	29.889	43.8	SW	84	0.016	0.014	6 v h	S.B.		
4	42.5	45.2	30.010	42.5	SW	52	0.008	0.006	6 v h	S.K.		
5	37.1	43.	30.108	37.1	SW	33	—	—	6 m			
6	33.3	40.1	30.205	33.1	SWKS	7	—	—	6 v f			
7	45.	43.5	30.192	45.2	NW	34	0.024	—	6 v	S.K.		
8	37.1	42.	30.141	37.1	NNW	27	—	—	6 v m			
9	42.2	41.8	30.001	42.2	WSW	46	0.006	—	0 f	BK, K.		
10	45.9	43.5	30.148	45.9	NW	42	0.007	—	0 f	KS		
11	47.2	45.	30.070	47.2	WSW	86	0.007	—	6 v q	KS		
12	45.8	44.8	30.261	45.8	SW	50	a trace	—	6 v m	KS		
13	47.	45.2	30.135	47.5	SE	85	—	—	6 v h	KS		
14	46.2	45.	29.723	46.5	E	98	—	—	6 v m h	KS		
15	42.8	44.3	30.040	43.4	SW6W	98	0.087	0.078	6 v m	G.K. KS. KS. G.S.		
16	48	46	29.776	48.4	SE	183	—	—	6 v h q	GK. CS. KS. G		
17	50	50.8	29.546	49.4	SW	199	0.123	0.155	6 v h	KS & K & G. round high	483	
18	44.4	45.	29.771	44.9	S	131	—	—	6 m v m	S. KS. GK in SE	remarkably light at 2 AM	
19	48.	50	29.298	48.2	SW½W	246	0.180	0.230	6 v	KS. S.	(408)	
20	43.1	44	29.271	43.7	S	81	0.009	—	6 v h	CK. CS. (v m SE. h in NW)		
21	48.	47.5	28.642	48.8	SEW	292	0.284	0.337	6 v	KS CS G	(614)	
22	44.1	47.5	28.421	44.9	NW	188	0.468	0.454	0 h	a break SW 2° above Hzn	(493)	
23	45.2	46.	29.020	45.6	SW6S	157	0.032	0.029	6 v	K. CS	(382)	
24	43.3	45.8	28.592	43.6	N	108	0.410	0.515	0 v m r	KS	(274)	
25	39.8	43.	28.964	39.4	NW	73	0.033	0.030	0 f		169	
26	37.8	43.	29.108	37.2	NW6W	656	0.064	0.074	6 v	GK. C. CS (29.101)	(310)	
27	39.2	41.	29.328	39.2	S½E	93	Trace	—	0 v m	KS. K.		
28	45.6	44.1	29.022	45.8	SE6E	116	0.025	0.103	0.9 m	K. KS. (at 10½ M)		
29	41.	43.1	29.398	41.1	NNW	108	0.365	—	0. v.	KS. S. 8°		
30	40.5	43.3	29.875	40.9	NW6W	34	0.020	—	Thick fog			
		43.46	44.67	29.601			3108	4.221	2.066	Looks like 1.0 omitted on 26th & 28th		
								4.066	or wrongly inserted & Square. Evidently not			

1865	10 P.M.		Moisture		Wind		Heat			
November	E	A	Dair	Wells	Dir	Miles	Max	Min		
1	40.3	46.3	29.750	40.8 39.3	SWbE	52	50.3	37.6	o. v.	CS. KS.
2	37.9	42.6	29.786	38.3 37.4	WSW	115	48.6	38.5	b. v.	CK. KS.
3	39.5	45.3	29.936	39.9 39.4	SW	65	50.2	36.0	o. v	CK specks of K.
4	37.8	46.1	30.065	38.1 37.8	SW	25	50.9	38.5	o. v.	CS. KS. faint halo round D
5	29.2	42.	30.188	37.2 36.2	SW	10	43.9	30.0	b. f	
6	38.1	43.4	30.210	38.3 37.6	W	14	46.	28.9	b. v. m.	CK. KS.
7	35.4	43.6	30.156	35.5 35.3	N	57	49.5	36.5	b. f.	S. K. clouds doubtful for fog.
8	31.3	41.3	30.065	31.5 31.1	N.W	66	45.4	32.4	b. f.	CK. C.
9	43.1	43.5	30.081	42.6 41.4	NW	50	49.1	31.9	o. g.	KS?
10	43.6	44.1	30.141	44. 42.6	WSW	120	49.	39.0	o. g. d.	
11	42.9	45.4	30.125	42.9 42.4	SW	79	51.4	42.6	b. v.	KS.
12	45.2	45.2	30.226	45.5 42.8	E. b. N	61	51.	40.0	o. g.	
13	40.1	45.1	29.919	40.3 39.6	S	100	50.	41.4	b. v.	S. round horizon
14	45.	47.	29.717	45.6 44.1	W	192	51.2	40.9	b. v	K. aurora behind clouds at NW
15	49.2	48.1	30.059	49.5 48.4	S	117	48.3	37.4	b. v	K. light aur behind clouds NW
16	51.4	49.5	29.390	51.6 50.4	S	284	53.9	39.5	o. g d. q	
17	39.5	47.4	29.750	39.9 39.	SW	133	55.	40.4	b. v	
18	48.6	48.3	29.530	48.9 47.6	S	162	50.8	39.2	o. g. q	d air balmy
19	39.8	46.5	29.360	40.1 39.2	SW	150	55.	40.0	b. v	KS all round horizon
20	47.2	48.6	28.810	47.2 46.9	S b W	312	52.	36.0	b. v q	K (WSW horizon. (x. from 3pm to 9)
21	47.1	48.6	28.601	47.2 46.2	S b W	305	51.	45.5	b. v q	K in SW. NW
22	42.9	45.7	28.593	42.4 41.9	SW	225	50.3	41.9	o. g	KS faint over SE horizon
23	42.4	46.	29.043	42.9 41.9	S b W	166	52	40.8	o. g	
24	38.2	44.	29.116	38.5 38.1	SW	96	47.	38.0	b. v	S round horizon
25	40.1	43.3	28.542	40.1 39.8	NW	159	45.3	35.0	b. v q	KS
26	35.1	41.4	29.237	35.3 35.6	SW	113	44.9	34.2	b. v h	C-CKS (freezing on roof / 3pm)
27	42.2	43.2	29.142	42.6 42.	SEE	102	46.	33.3	o. g. z	
28	42.4	44.	29.156	42.9 41.4	NW b N	97	48.1	41.4	o. g. d.	KS. N
29	43.	46.4	29.637	43.8 42.8	NW b W	50	46.3	33.4	o. v.	KS. S
30	40.3	44.	29.883	41. 40.6	SE	36	47.8	38.9	b. v. m.	K.
	40.99	45.10	29.605			3513	49.06	37.27		
							49.3	37.4		

1865	10 AM.			Moist.	Wind.	Rain.			
December	E	A	Bar	Hyg.	Dir.	Miles	Sq.	Round	
1	45.3	44.8	29.755	45.79 44.22	SEBS	113	0.011	—	b. v. m. K. CK 149
2	46.	44.4	29.456	45.6 42.6	SE	154	0.074	—	o. v. K. KS. S 368
3	43.	43.6	29.253	43.4 41.2	SEBS	293	0.321	0.290	b. v. K. CK 542
4	43.9	42.2	29.095	44.1 41.7	S	84	0.372	0.353	b. m. v. K. K. n. 164
5	42.5	44.1	29.195	42.2 41.	S	127	0.925	0.725	b. v. K. CK 259
6	49.5	47.6	29.350	50.5 46.5	SSB	265	0.066	0.048	o. m. q. K. n. Halo of 25 at 1 AM 357
7	50.4	49.2	29.683	51. 49.1	SSW	252	0.261	0.336	b. v. q. KS 558
8	46.5	47.3	30.237	46.6 45.3	SSW	150	trace	—	b. v. h. C 351
9	45	46.	30.176	45.2 43.8	SSW	185	—	—	o. v. h. K. KS 344
10	45.9	47.2	30.430	46.1 46.	SN	46	0.035	0.030	f.
11	45.9	46.8	30.504	46.9 44.5	SE	70	0.006	0.012	o. v. m. KS
12	45.	45.8	30.398	44.5 41.7	S $\frac{1}{2}$ W	115	—	—	o. v. m. KS flights of felts 244
13	43.7	45.2	30.365	44. 43.3	SW	101	—	—	o. f. X?
14	43.2	45.	30.392	43.5 42.3	W $\frac{1}{2}$ N	74	—	—	b. v. X y XS
15	39.8	43.	30.580	39.9 38.1	SWBS	44	—	—	b. f. X
16	42.	43.8	30.612	42.2 41.6	WSW	91	0.013	0.012	b. v. m. K. KS
17	42.8	44.	30.482	42.9 42.	SW	66	trace	—	b. v. m. d. KS
18	41.7	43.	30.271	41.2 38.7	SBZ	68	0.003	0.003	o. v. X, closely packed
19	43.5	44.	29.862	43.5 41.7	S	64	0.003	0.002	o. v. m. q. KS
20	40.1	43.6	29.898	40.7 40.2	SWBS	129	0.082	0.098	o. m. BS. XS a fine halo - The part vertical to
21	52.2	49.2	29.618	52.7 50.2	SLW	343	0.082	0.089	o. v. m. q. XS thin very brief & projecting inside the disk
22	50.3	49.4	29.841	51. 48.4	S	234	0. trace	0. trace	o. v. q. KS Bar heavily 545
23	49.7	49.5	29.924	50. 46.5	SBW	271	—	—	b. v. KS. X. NW 491
24	50.5	47	29.929	50.6 48.7	SBW	210	—	—	b. v. m. q. K. KS, 560
25	49.	47.5	29.909	49.5 47.6	S	174	0.084	0.090	b. v. h. BS. B-BX Kall roundly 286
26	43.9	46.8	29.878	44. 43.2	SWW	140	0.277	0.413	o. m. KS. a reddish line of 2" in NW 539
27	41.	43.8	29.954	41.1 39.6	SWBW	153	0.046	—	b. m. BS. B. BX. K. in SSW 521
28	42.1	44.5	29.337	42.2 41.	SBW	245	0.142	0.456	b. v. m. BX. BS. CS. X. in W 286
29	45.1	43.5	28.510	45.6 42.3	S	284	0.003	—	b. v. r. q. KS. N Bar heavily violently 534
30	34.6	37.5	29.150	34.8 34.2	SWW	256	—	0.312	o. v. q. KS. N X show on ground rapidly melting off 498
31	38.6	43	28.881	38.5 36.9	SWBS	349	0.375	0.478	b. v. m. KS. S 568
	44.60	45.23	29.833			5152	3.124	3.449	715

1865	10 P.M.			North	Wind	Heat					
December	E:	A:	Bar:	Day wet	Dir:	Miles	Max ^m	Min:			
1	44.6	44.9	29.604	44.9 43.1	SE	214	48.4	38.4	b. v. g.	K. CK. (at 10.45 ^m)	
2	42.5	44.	29.375	42.9 41.4	EbS	249	47.4	41.6	o. m.	K.	
3	34.5	41.4	29.190	34.6 34.3	S	80	46.	35.0	b. v.	K. CK. CS. (at 11.15 m strong halo round moon)	
4	45.1	44.1	28.928	45.1 44.4	EbS	132	48.1	34.7	o. g.	K.	
5	45.8	45.	29.416	45.8 45.3	S	92	48.	40.8	o. v.	K.	
6	53.4	53.6	29.358	53.7 53.5	S	306	55.2	45.2	o. v. r. g.	KS.	
7	47.8	49.1	30.080	48.1 47.2	SBW	201	55.4	46.5	o. v.	KS.	
8	43.6	47.5	30.178	43.9 43.7	SSW	159	51.	43.9	b. v.		
9	46.1	47.5	30.300	46.6 46.3	SWbS	139	49.1	41.6	o. g.		
10	43.	47.	30.472	43.4 42.9	NNE	47	50.	42.0	o. g.	(singular fog clouds about 3.30 fog minor less all day) (flights of Bramblings)	
11	44.	45.8	30.461	44.4 42.	SE	129	48.3	44.0	o. g.		
12	40.3	45.1	30.313	40.6 39.8	S	93	47.6	41.2	b. v.		
13	42.2	45.2	30.380	42.6 39.3	W	74	48.1	39.6	o. g.		
14	41.1	44.4	30.463	41.3 40.7	SW	83	47.8	41.4	b. v. m.		
15	41.5	43.8	30.541	41.8 41.4	SW	87	46.	36.5	o. g.		
16	42.2	44.	30.500	42.7 41.4	SWbW	127	46.9	40.5	o. g.		
17	41.4	44.	30.410	41.9 40.5	S	84	47.6	41.0	o. g.		
18	43.3	43.5	30.053	43.7 40.3	SE	294	46.5	40.0	o. g.		
19	45.4	44.2	29.603	45.6 45.1	S	269	47.5	42.4	o. g. g. r.	Bar. heaving	
20	57.1	47.6	29.691	50.4 48.8	S	202	58.6	38.4	o. g. d. g.	rain came at 2 pm	
21	49.1	48.8	29.850	49.6 48.8	S ¹ / ₂ E	257	55.	48.5	o. g.		
22	50.	49.8	29.863	50.4 47.5	SE	289	53.	48.9	o. g. g.		
23	45.5	47.6	29.968	45.9 42.9	SE	76	52.7	45.7	b. v. K. singularly black & faint halo of auroral behind.		
24	52.1	50.3	29.862	52.3 50.	S	365	54.	42.8	o. v. g. K.		
25	43.6	49.1	29.683	43.9 43.1	SE	381	55.8	44.9	o. v. r. g.		
26	37.6	44.	30.041	37.7 36.7	SW	483	47.1	38.1	b. v.		
27	43.3	44.6	29.568	43.6 41.2	SE	289	46.6	37.5	o. v. g. line of light in SE	Bar. heaving	
28	41.1	43.9	29.200	41.2 40.2	SW	214	47.1	39.6	b. v. K. C. CS. CK. S. g.		
29	33.6	40.2	28.704	33.8 32.4	SW	312	47.5	34.2	7/8 v. C. CK. CS. K. at 11.20 Bar = 28.465		
30	44.3	42.1	28.610	44.1 43.6	S	366	46.5	33.0	o. v. at 11.30 violent storm Bar. heaving much		
31	32.8	38.	28.985	32.6 32.4	SW	274	50	33.0	6 v. K. in SE. snow sprinkle at 9 past our streamers.		
	43.63	45.49	29.795			6063	49.16	40.29			
							49.44	40.7			

10 am

10 pm

Rain

Thermometers

1865	E	A	Bar:	E	Bar:	A	Square	Round	Max:	Min:
			at 50°		at 50°					
January	34.96	36.99	29.311	35.00	29.274	37.39	2.924	3.649	51.6 on 10 th	20.8 on 25 th
February	38.86	38.36	29.672	36.50	29.640	38.75	4.438	2.054	52.9 - 26 th	23.9 - 15 th
March	41.30	40.46	29.740	36.92	29.750	40.43	2.310	2.254	60.2 - 31 st	25.7 - 21 st
April	52.01	48.78	29.912	45.65	29.915	50.63	0.985	0.994	66.8 - {24 th 25 th }	34.8 - 15 th
May	55.04	52.80	29.644	49.30	29.641	53.60	5.206	4.369	72.1 - 24 th	38.7 - 11 th
June	63.61	60.78	30.036	55.24	30.034	62.09	0.744	0.632	79.2 - 21 st	42.8 - 1 st
July	63.79	62.15	29.682	56.32	29.679	62.75	2.480	2.037	74.6 - 2 nd	46.6 - 10 th
August	61.27	60.05	29.617	54.49	29.647	60.25	3.181	3.463	71.3 - 22 nd	43.5 - 4 th
September	62.72	61.33	30.094	56.35	30.010	62.75	0.318	0.480	75. - 15 th	42. - 26 th
October	61.52	52.62	29.404	46.44	29.411	52.84	6.087	6.495	66. - 5 th	31.9 - 28 th
November	43.46	44.67	29.645	40.99	29.618	45.10	4.221	2.066	55. - {17 th 19 th }	28.9 - 6 th
December	44.60	45.23	29.846	43.63	29.807	45.49	3.111	3.449	55.4 - 7 th	33. - {30 th 31 st }
Summer	59.59	58.23	29.743	53.37	29.740	59.00	18.016	17.476		
winter	42.53	42.43	29.674	39.80	29.666	43.55	17.989	14.466		
Year.	51.14	50.40	29.709	46.43	29.704	51.05	36.005	31.942		

Summer

	Rain days	mean Therm	mean Barom:
Jan ^y	17	34.98	29.293
Feb ^y	17	37.68	29.631
March	19	39.11	29.745
April	11	48.83	29.914
May	22	52.17	29.643
June	7	59.43	30.035
July	19	60.06	29.681
August	24	57.88	29.632
Sept ^r	13	59.54	30.052
Oct ^r	23	48.98	29.408
Nov ^r	21	42.23	29.617
Dec ^r	20	44.12	29.826

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Mean Temperature of Year = 48.79
 Maximum do June 24th = 79.2
 Minimum do Jan 25th = 20.8

Mean Barometer = 29.707
 Max^m do (15 Dec.) = 30.580
 Min^m do (13 Jan^y) = 28.216

1
Barometer

from 1868 to 1880

Maximum 30.640 - 6 March 1874

Minimum 28.078 19 Jan^y 1873

THE OBSERVATORY
ARMAGH.

Maximum & Minimum Thermometers for 20 years.

Maximum

continued 12 years more

	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	
January	48.58	40.48	46.77	44.71	44.04	42.58	41.22	41.74	42.45	47.44	46.42	42.09	42.68	44.38	44.82	44.98	41.76	46.57	39.31	44.60	Highest in one Year
February	48.55	47.70	47.42	46.31	39.29	46.57	35.97	47.41	46.20	44.59	48.14	42.63	42.91	43.59	47.05	42.87	43.82	45.10	49.42	49.45	In 1857, 1860, 55.96
March	50.03	48.16	48.41	47.44	45.83	51.97	44.30	46.07	46.15	49.19	50.80	47.73	44.82	44.22	49.64	47.61	46.73	46.80	44.19	51.90	Highest in Month
April	50.58	54.94	52.46	55.91	52.43	56.40	55.37	53.01	51.18	55.23	51.12	51.81	52.37	48.48	54.52	57.65	58.46	53.76	54.94	56.96	July 1860: 72.70
May	60.57	58.37	57.55	59.88	60.43	54.70	56.72	56.37	59.82	59.43	63.60	60.91	62.65	55.51	57.53	62.98	60.11	58.71	59.56	62.03	Highest in one day
June	63.93	65.04	64.44	66.65	65.66	62.31	62.80	62.77	68.41	67.78	68.15	60.45	67.49	61.85	64.18	63.78	69.30	65.09	65.85	67.43	12 July 1859: 83.8
July	66.83	67.03	64.03	70.81	64.47	64.10	69.77	65.94	66.60	64.48	71.60	64.29	66.05	62.47	67.53	68.14	68.60	67.67	67.00	72.70	15 " 1860: 83.1
August	65.88	64.13	66.58	69.17	64.99	64.53	66.19	68.28	68.77	66.06	67.79	60.55	66.78	63.38	65.03	66.25	65.93	63.99	67.51	67.31	The highest Monthly Means in July
September	62.14	60.63	62.24	60.60	58.93	62.04	61.20	59.17	64.07	62.91	60.62	57.77	60.72	60.99	58.94	62.42	68.52	58.99	62.50	62.55	
October	53.32	52.58	55.71	52.00	53.62	52.55	53.48	56.64	56.64	52.73	53.54	53.31	57.45	54.57	54.35	53.96	56.44	56.08	54.77	53.41	
November	49.68	50.54	44.98	47.50	48.10	45.43	46.20	48.51	50.20	45.64	47.32	44.46	46.28	42.69	52.18	45.56	49.06	50.15	47.98	45.93	
December	42.69	48.03	46.68	47.08	40.00	46.16	42.52	45.14	51.10	47.26	40.35	38.66	46.40	48.38	49.51	44.89	49.16	48.87	45.83	48.86	
Mean Totals	55.23	54.80	54.77	54.97	53.15	54.11	52.97	54.27	55.96	55.22	55.78	52.58	54.71	52.54	55.44	55.09	56.49	55.14	54.90	56.96	Mean of 20 years: 54.75

Minimum

	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	
January	35.61	32.36	35.11	34.63	34.10	33.93	33.62	33.58	34.52	38.67	37.28	38.67	35.56	37.30	36.14	33.37	30.64	36.20	27.71	34.82	Lowest in one Year
February	38.80	39.51	36.69	35.19	29.64	35.00	26.70	38.03	36.40	35.19	37.15	32.38	35.47	37.58	36.74	30.01	33.67	33.19	38.24	37.93	1860: 40.82
March	39.40	36.74	36.82	36.33	33.36	39.01	33.06	35.06	36.92	36.37	39.75	35.12	36.04	36.79	38.97	34.28	33.26	34.68	32.33	38.92	Lowest in one Month
April	37.49	42.56	39.00	39.67	39.63	41.90	39.36	40.58	39.84	40.73	39.36	36.46	41.08	40.01	39.61	41.98	41.45	39.81	42.32	41.64	January 1867: 27.71
May	45.46	43.99	44.26	45.19	44.10	42.63	41.21	43.23	45.59	45.47	44.52	44.84	44.38	45.35	43.76	46.53	45.91	41.87	45.07	46.23	Lowest on one Day
June	48.31	53.02	50.14	49.50	51.21	47.96	50.54	49.84	53.48	53.13	51.96	48.83	52.78	48.32	48.96	48.08	52.37	50.58	51.01	50.78	4 January 1867: 9.
July	52.60	53.98	51.56	56.42	52.55	51.55	56.38	52.68	54.31	51.22	55.73	52.47	51.85	49.65	50.50	52.39	54.45	54.72	51.36	58.22	The lowest Monthly Ratio:
August	53.18	51.13	53.10	53.19	52.02	52.62	53.06	56.17	55.81	52.55	52.16	49.91	53.89	51.61	50.86	48.60	52.20	50.86	53.55	52.66	January & February
September	49.51	46.45	49.64	48.19	47.76	50.57	50.06	48.23	52.52	50.68	47.98	45.10	49.09	49.08	45.34	46.38	52.54	45.23	49.32	49.18	
October	41.69	42.21	45.22	41.83	42.59	43.33	43.18	48.61	46.10	41.99	42.59	43.01	43.85	43.01	42.60	43.02	43.94	44.78	43.60	40.50	
November	41.31	40.96	35.97	38.20	38.24	38.26	38.04	40.16	41.35	36.33	38.64	36.79	33.20	33.12	40.88	36.73	37.27	39.46	37.24	35.79	
December	33.12	39.47	38.51	37.62	32.36	37.09	35.26	36.94	43.30	39.37	30.81	32.65	35.57	38.84	37.85	35.38	40.29	37.81	35.94	38.34	
	43.04	43.53	43.00	42.99	41.46	42.82	41.70	43.50	45.01	43.47	43.16	40.82	42.73	42.55	42.68	41.39	43.16	42.43	42.31	42.91	Mean of 20 years: 42.73

Uncorrected Maximum & Minimum Thermometers continued

3

Maximum

THE OBSERVATORY
ARMAGH

	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	Mean						
January	47.11	43.93	41.17	46.24	46.06	47.93	49.47	46.92	47.26	47.39	39.13	44.11							
February	50.62	43.67	49.90	49.62	43.09	47.99	45.20	47.25	48.85	49.38	44.10	49.45							
March	46.46	50.10	52.94	51.03	48.36	52.55	49.09	46.89	49.63	50.41	47.82	52.33							
April	58.14	57.79	55.67	55.59	55.36	58.58	58.48	54.42	51.30	56.92	51.24	54.93							
May	54.59	60.64	62.91	57.94	59.08	59.45	63.89	60.26	57.83	61.36	57.88	61.13							
June	63.99	67.49	65.49	64.87	67.64	67.85	65.32	66.44	67.40	66.92	64.07	66.02							
July	72.25	70.61	67.61	70.52	68.79	70.93	67.19	71.22	66.23	70.66	63.80	66.88							
August	67.11	70.90	69.53	67.68	65.49	67.52	69.14	68.79	65.97	68.99	65.49	71.24							
Sept ^r	62.30	64.50	60.88	61.47	61.13	61.26	64.99	61.54	60.75	64.10	60.37	65.15	61.5						
October	57.29	55.49	56.68	53.21	53.47	54.79	55.03	57.49	57.06	57.11	54.35	51.38							
Nov ^r	50.24	47.36	46.89	48.63	48.64	50.65	47.53	49.86	49.96	39.14	48.08	48.27							
Dec ^r	42.53	40.43	45.69	45.23	50.82	40.66	45.00	48.19	47.15	38.94	41.63	45.52							
Mean Totals	56.05	56.10	56.28	55.18	55.69	56.67	56.71	56.60	55.70	55.72	53.16	56.36							

From 1869 to 1880
Maximum
16 July 1876
86.9
Minimum
25 Dec^r 1878
6.7
Hottest year
1875
Coldest 1879

Minimum

	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880							
January	39.02	33.36	31.77	34.66	35.52	36.74	39.03	35.99	35.63	36.17	27.82	34.35							
February	40.40	32.01	40.61	39.51	31.34	36.21	34.07	33.79	37.09	32.31	33.23	37.50							
March	33.79	35.88	37.81	38.42	35.92	39.36	37.39	32.42	31.64	37.12	33.82	37.72							
April	41.79	40.77	41.59	40.19	40.13	41.88	40.02	38.73	38.86	41.25	36.21	38.96							
May	40.75	44.89	44.72	43.04	43.30	43.83	46.65	43.62	41.54	46.11	40.55	43.62							
June	47.65	52.13	49.93	49.82	51.34	49.08	49.13	48.78	50.48	51.10	49.57	50.11							
July	54.29	54.52	52.08	54.80	54.39	54.31	50.08	52.61	51.51	54.09	51.68	52.41							
August	51.30	51.91	53.55	53.58	52.72	51.83	54.95	51.86	51.82	54.57	50.99	55.87							
September	49.57	50.43	46.98	49.37	45.94	49.12	51.83	48.22	45.74	49.80	46.70	51.26							
October	45.45	42.30	44.02	40.20	40.06	40.89	43.81	47.60	44.22	45.20	42.13	37.92							
November	37.31	35.66	36.59	36.93	37.36	39.95	36.73	39.70	37.86	31.08	37.25	36.91							
December	30.84	29.23	34.00	35.58	39.30	29.23	33.59	37.90	35.43	24.10	29.52	34.02							
Mean Totals	42.68	41.76	42.80	43.10	42.27	42.70	43.10	42.55	41.80	42.40	38.24	42.55							

For Maximum & Minimum
Thermometer see preceding page.

Thermometer. Exterior. 10. A.M. for 20 years

	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	
January	40.73	37.36	40.51	39.54	39.07	38.52	37.37	36.79	37.47	42.44	41.16	37.73	39.62	40.67	39.49	38.50	34.96	40.95	33.27	40.32	Highest Year's Mean
February	44.21	45.13	41.74	40.24	34.37	40.58	30.77	41.39	40.92	38.64	43.22	37.58	41.26	42.15	43.10	36.07	38.86	39.68	43.71	43.71	1868: 51.20
March	45.45	44.06	43.03	41.66	39.78	45.20	38.79	41.12	41.36	42.40	46.89	42.24	44.21	42.23	46.09	42.44	41.30	41.54	38.94	46.18	Highest Month
April	45.42	50.89	47.31	49.61	47.21	49.92	48.30	47.46	46.27	47.36	46.84	46.21	48.97	50.20	49.64	51.86	52.06	48.87	49.84	50.07	July 1859: 64.96
May	55.16	52.76	52.40	53.73	53.33	51.92	49.89	50.95	53.38	53.13	57.60	56.10	56.32	55.35	53.00	56.66	55.04	54.40	53.70	56.14	Lowest Month
June	57.98	60.10	58.14	56.50	58.82	55.64	56.86	56.45	60.56	60.29	60.48	56.93	61.97	56.08	58.95	57.41	63.61	60.26	59.64	60.83	February 1855: 30.77
July	61.01	60.40	58.50	63.78	58.84	58.16	62.81	59.07	60.69	57.68	64.96	61.24	60.66	59.24	58.97	61.17	63.79	62.55	60.50	63.20	Highest on one Day
August	60.12	58.09	60.27	61.14	58.93	59.15	60.30	61.81	61.74	59.62	61.95	57.73	61.39	59.65	60.10	59.43	61.27	59.38	62.17	62.05	15 July 1868: 76.3
September	57.46	54.83	56.28	55.09	54.15	57.11	55.87	53.47	57.63	56.66	55.71	53.63	56.46	57.26	53.08	56.76	62.72	54.40	57.06	57.43	Lowest on one Day
October	49.22	47.25	50.37	47.30	49.02	48.31	48.25	52.15	51.16	46.65	48.29	49.81	52.03	49.93	49.70	49.49	51.52	51.19	49.84	48.90	4 January 1867: 11.9
November	42.92	45.37	40.50	42.33	42.74	42.73	42.04	44.05	45.38	39.74	42.91	41.11	39.21	38.80	46.60	42.89	43.46	45.13	43.70	41.06	20 Dec 1878: 6
December	38.03	43.99	43.03	43.17	37.03	41.57	38.56	40.84	47.09	43.18	35.01	35.78	39.06	43.37	43.38	39.92	44.60	44.54	41.07	43.70	
Mean Totals	49.29	50.01	49.34	49.50	47.77	49.06	47.48	48.79	50.35	48.98	50.41	48.00	50.09	49.62	50.19	49.41	51.14	50.30	49.46	51.20	

Mean: 49.56.

Thermometer continued.

THE OBSERVATORY
ARMAGH.

5

	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880								
January	43.40	37.98	35.67	39.31	40.10	41.41	43.91	40.38	40.53	40.31	33.32	38.26								
February	45.82	37.65	41.66	43.96	36.66	42.01	39.15	40.17	43.34	43.92	38.14	42.95								
March	41.03	42.06	46.55	45.66	43.16	46.60	43.39	40.12	43.23	44.54	41.70	45.34								
April	50.80	50.44	49.51	48.83	48.86	52.03	51.84	47.90	45.94	50.84	45.01	48.93								
May	42.87	54.27	56.12	57.65	53.20	52.77	55.98	53.68	51.56	52.06	51.95	53.33								
June	57.51	60.21	58.96	58.59	61.53	61.91	58.59	58.81	60.91	60.37	57.87	59.30								
July	65.07	63.30	60.55	63.55	61.51	64.06	60.49	63.60	60.26	65.13	57.81	60.43								
August	60.70	62.77	63.02	64.36	60.44	59.73	62.29	62.00	59.58	62.82	59.55	64.48								
Sept.	56.65	58.60	57.97	55.83	55.07	55.83	59.09	55.74	55.23	58.25	54.90	59.20								
October	50.29	49.60	50.96	47.53	47.50	49.00	50.24	53.01	51.30	54.95	48.95	45.62								
Nov.	42.44	41.27	41.39	43.49	43.11	45.35	42.11	43.55	43.07	37.78	42.80	42.49								
Dec.	35.89	34.45	39.08	39.93	43.56	34.45	39.39	42.14	40.43	30.14	34.63	39.71								
Mean Totals	49.88	49.45	50.16	50.26	49.60	50.36	50.54	50.00	49.65	50.26	47.22	50.01								

On xmas Eve 1878. Thermom down to 6.

6.7

For Thermometer see preceding page.

10 A.M. Barometer Monthly Means From 31st Dec^r 1848 to 31 Dec^r 1868

	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	
January	29.348	29.716	29.334	29.354	29.339	29.377	29.997	29.352	29.629	29.988	29.829	29.301	29.820	29.510	29.436	29.897	29.311	29.407	29.444	29.537	Greatest Height in one month.
February	29.935	29.644	29.782	29.816	29.607	29.970	29.602	29.717	29.731	29.735	29.618	29.812	29.470	29.851	29.986	29.716	29.622	29.404	29.736	29.768	Nov ^r 1867: 30.135
March	29.856	29.983	29.474	29.970	29.732	30.036	29.442	30.005	29.666	29.770	29.671	29.511	29.431	29.446	29.643	29.146	29.740	29.493	29.666	29.664	In only 6 months of 20 y ^r
April	29.520	29.461	29.679	29.879	29.653	29.999	29.910	29.549	29.848	29.699	29.559	29.825	30.002	29.725	29.745	29.038	29.912	29.607	29.482	29.707	was it above 30. Sep ^r 51.
May	29.685	29.679	29.907	29.742	29.804	29.563	29.693	29.646	29.740	29.663	29.860	29.657	29.968	29.637	29.815	29.843	29.644	29.795	29.664	29.699	March. 51. April. 61. June 61
June	29.868	29.793	29.777	29.419	29.700	29.669	29.799	29.807	29.798	29.870	29.769	29.467	29.790	29.688	29.688	29.668	30.036	29.707	29.915	29.941	Sept 65 & Nov. 67
July	29.719	29.825	29.671	29.841	29.597	29.740	29.734	29.759	29.723	29.755	29.860	29.863	29.401	29.617	29.957	29.798	29.682	29.743	29.678	29.940	Highest on one Day:
August	29.751	29.714	29.842	29.584	29.757	29.870	29.740	29.753	29.842	29.793	29.703	29.456	29.704	29.721	29.621	29.895	29.617	29.558	29.693	29.617	22 Dec ^r 1849: 30.668.
Sept ^r	29.791	29.856	30.000	29.769	29.788	29.939	29.984	29.634	29.700	29.753	29.563	29.710	29.583	29.819	29.500	29.603	30.094	29.375	29.796	29.677	Lowest on one Day:
October	29.656	29.698	29.677	29.636	29.410	29.635	29.405	29.890	29.633	29.736	29.481	29.406	29.745	29.597	29.470	29.694	29.404	29.871	29.660	29.506	19 Nov ^r 1850. 27.976.
Nov ^r	29.580	29.572	29.854	29.284	29.790	29.693	29.853	29.946	29.917	29.730	29.661	29.661	29.407	29.740	29.607	29.493	29.615	29.690	30.135	29.777	Highest Year's Total:
Dec ^r	29.797	29.677	29.971	29.249	29.041	29.660	29.592	29.503	29.879	29.560	29.481	29.430	29.832	29.693	29.814	29.755	29.846	29.590	29.805	29.343	1850: 29.752 Lowest. 1860: 29.606
Mean Totals	29.725	29.718	29.745	29.630	29.664	29.679	29.729	29.711	29.731	29.752	29.664	29.666	29.682	29.658	29.689	29.719	29.709	29.616	29.717	29.664	

Mean 29.694.

Barometer Monthly Means from 1869 to 1880

THE OBSERVATORY
ARMAGH

7

	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880								
January	29.581	29.646	29.488	29.776	29.760	29.666	29.472	29.938	29.404	29.381	29.713	29.829								
February	29.569	29.621	29.683	29.379	29.809	29.644	29.876	29.461	29.646	29.933	29.259	29.399								
March	29.715	29.882	29.716	29.476	29.502	29.892	29.950	29.275	29.516	29.887	29.188	29.809								
April	29.738	29.705	29.561	29.675	29.862	29.547	29.860	29.606	29.518	29.589	29.477	29.293								
May	29.666	29.758	29.914	29.698	29.748	29.807	29.759	29.998	29.645	29.486	29.819	29.910								
June	29.890	29.940	29.799	29.630	29.759	29.948	29.665	29.782	29.733	29.697	29.477	29.741								
July	29.823	29.837	29.564	29.362	29.625	29.739	29.852	29.867	29.640	29.882	29.542	29.611								
August	30.001	30.877	29.784	29.760	29.664	29.664	29.818	29.731	29.622	29.511	29.556	29.833								
September	29.475	29.346	29.762	29.330	29.711	29.588	29.809	29.592	29.885	29.723	29.645	29.744								
October	29.853	29.467	29.605	29.440	29.512	29.570	29.506	29.636	29.673	29.442	29.849	29.784								
November	29.708	29.566	29.762	29.357	29.640	29.689	29.619	29.607	29.252	29.651	30.006	29.604								
December	29.542	29.667	29.755	29.234	29.921	29.573	29.797	29.121	29.708	29.492	29.941	29.624								
Mean Totals	29.713	29.837	29.700	29.306	29.682	29.695	29.746	29.632	29.632	29.607	29.676	29.595								

From 1869 to 1880
 Greatest Height
 30.640 h March 1874
 Lowest 28.78
 19 January 1873
 Mean Total above
 29. - only in
 Aug. 69 : 30.001
 Nov. 79 : 30.086
 Jan 80 : 30.029

For Barometer see preceding page

Rainuage (Square) for 20 years From 31st Dec^r 1848 to 31st Dec^r 1868

	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	
January	2.422	2.775	2.967	3.010	2.245	3.129	0.354	2.301	3.270	1.459	2.817	3.343	1.999	4.670	2.636	1.015	2.924	4.608	3.666	2.600	Dec ^r 50 & March 28 th 52 out of order
February	0.653	1.374	0.967	2.325	1.250	1.530	1.594	1.622	1.643	1.292	1.437	1.128	1.720	0.949	0.791	1.331	4.459	2.614	3.055	2.952	Greatest Fall in one Month
March	0.688	0.721	1.299	—	1.688	1.635	2.114	0.829	3.906	1.060	2.584	2.036	3.147	3.025	1.695	2.300	2.310	3.100	1.844	3.562	October 1865 : 6.087
April	1.285	2.536	0.823	—	1.796	0.175	1.346	1.056	4.392	5.250	2.566	1.468	1.072	2.761	1.431	1.971	0.985	1.506	3.599	2.555	Least : 0.175 : April 54
May	2.523	2.525	1.630	1.658	0.531	2.903	2.445	3.218	1.227	3.296	0.402	3.082	0.426	4.286	1.658	1.858	5.206	1.170	3.878	1.889	After snow 8 Jan 54 : 2.028
June	0.671	2.144	2.371	5.307	2.066	4.493	2.562	1.593	1.865	1.028	1.316	3.749	4.727	3.417	4.160	1.280	0.744	2.168	0.948	0.915	Greatest fall in one Day
July	3.324	2.683	3.210	1.884	3.068	5.247	2.812	1.534	2.804	3.083	1.849	1.394	3.908	3.989	0.246	1.706	2.480	3.196	4.581	0.887	12 Oct 65 : 1.640
August	2.168	2.031	2.384	3.050	2.252	2.583	3.294	2.635	2.976	3.324	3.224	4.954	5.605	2.428	3.482	2.220	3.181	3.306	2.436	2.585	Greatest fall in one Year
Sept ^r	3.095	2.347	1.754	1.724	0.956	1.645	1.458	3.149	2.108	1.833	4.010	0.981	4.035	1.704	3.965	2.944	0.310	3.597	1.400	1.595	37.073 : 1862
October	3.508	1.528	2.181	2.427	3.717	2.902	3.217	1.424	1.563	2.420	1.522	2.119	2.711	4.765	5.667	2.485	6.087	1.866	4.417	2.080	Least : 19.721 : 1857
Nov ^r	1.504	1.064	0.195	5.658	2.339	2.482	0.698	1.384	3.326	1.168	3.355	1.842	3.219	1.773	3.058	5.663	4.221	3.062	0.903	3.035	
Dec ^r	2.172	0.924	—	4.918	1.540*	4.192	2.079	3.546	1.702	3.669	2.393	2.122	2.150	3.309	2.021	2.122	3.111	3.903	1.835	4.948	24 Days in 20 yrs above 1 inch fall
Totals	24.313	23.107	19.721	31.961	23.448	32.916	23.765	24.291	30.782	28.892	27.455	28.378	34.719	37.073	30.750	27.703	36.005	34.006	32.370	29.895	

Mean. 29.069

Mean : 29.069 * From this month the gauge on the ground is used
 27. Edinburgh 26. Newcastle 64
 35.98. Montpelier 36.56. Algiers 35.08. London 38.06. Toulouse 24.90

Rain Gauge Square

From 1869 to 1880

	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880
January	3.036	2.110	3.627	3.476	3.997	1.702	3.828	1.349	5.525	3.417	2.128	1.378
February	4.447	0.785	2.731	3.835	0.343	1.643	1.498	3.611	3.203	1.382	1.695	2.533
March	2.276	0.621	0.958	2.366	1.311	1.053	0.934	3.193	2.736	1.756	1.965	1.993
April	3.335	0.525	3.210	3.200	0.566	2.595	0.140	1.495	3.068	1.246	2.389	4.007
May	2.297	0.550	0.258	1.481	1.435	1.123	1.857	0.423	2.140	4.019	3.469	1.046
June	0.906	0.439	0.997	3.395	1.355	0.856	3.131	1.430	3.232	3.507	4.005	4.314
July	1.304	1.265	5.540	2.135	5.405	3.235	3.749	2.045	3.433	0.173	5.426	5.815
August	1.363	1.646	2.151	2.025	5.011	3.779	3.662	2.216	2.772	2.717	3.069	1.070
Sept	3.526	2.861	3.787	3.815	1.867	3.252	4.962	2.558	1.660	7.101	3.719	3.519
October	1.746	7.616	2.706	4.576	2.600	3.557	4.817	3.215	3.236	2.930	1.452	1.054
November	2.276	1.489	1.578	3.950	2.087	3.087	3.823	2.509	3.668	1.650	1.396	3.159
December	2.967	2.383	1.051	5.369	0.685	2.843	1.836	6.767	3.266	1.657	1.572	2.713
	29.639	22.290	26.347	39.663	26.675	28.725	36.217	30.661	37.940	28.585	32.215	32.151

From 1869 to 1880

Greatest fall in
one year 1872

39.643

Least 1878

28.585

Greatest fall in one day

9 Dec. 1875

1.611

The months in
which most rain

in 31 W. Jan. July Aug

Least March & May

For Square Guage see former page

Rain Gauge (Round) for 20 years
from 31st Decr 1848 to 31st Decr 1868

THE OBSERVATORY
ARMAGH

9

[illegible]

Rain Gauge Round, from May 1874 New Gauge. from 1869 to 1880

	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880					
						per Square											
January	3.607	3.710	4.324	3.476	6.005	2.942	3.974	1.268	5.353	3.552	1.829	1.583					
February	6.005	2.083	3.473	3.555	0.342	1.938	1.724	3.986	3.371	1.340	1.703	2.579					
March	2.897	2.067	2.049	2.366	1.986	2.186	1.209	3.480	2.847	1.839	2.023	2.058					
April	3.362	1.214	3.405	3.107	0.795	2.595	0.321	1.851	3.241	1.316	2.451	4.278					
May	2.803	2.461	0.408	1.431	1.930	1.123	1.685	0.471	2.243	4.227	3.447	1.073					
June	1.242	0.935	1.183	3.375	1.466	0.885	3.279	1.475	3.418	3.669	4.265	4.358					
July	1.612	1.632	5.206	2.135	5.015	3.283	3.786	2.078	3.228	0.164	6.340	6.059					
August	1.917	1.933	2.521	2.025	4.599	3.883	3.748	2.614	3.082	2.847	3.177	1.140					
Sept	4.891	3.057	3.937	3.775	2.190	3.422	4.988	2.784	1.800	4.240	3.835	3.638					
October	2.179	4.914	3.076	5.294	3.858	3.801	4.806	3.866	3.419	3.033	1.520	1.088					
November	4.876	1.788	1.980	4.706	3.419	3.159	3.903	2.682	3.772	1.648	1.397	3.235					
December	6.312	3.373	2.224	7.029	1.471	2.992	1.984	6.681	3.495	1.830	1.616	2.584					
	41.706	34.167	33.766	42.777	33.076	32.209	35.407	33.236	39.269	29.705	33.603	33.653					

Max 86°.9, 1876 July 16