

XXVI.—*Observations on the Temperature of the Ground at Trevandrum, in India, from May 1842 to December 1845.* By JOHN CALDECOTT, Esq., Astronomer to the Rajah of Travancore. Communicated in a Letter to Professor J. D. FORBES.

(Read 15th March 1847.)

122 PALL MALL, Feb. 3, 1847.

MY DEAR SIR,—I have taken the opportunity of a short visit to England to bring with me a complete copy, to the end of 1845, of the Observations of Terrestrial Temperature, made at Trevandrum (of which I have already sent you a partial account), and which I have now the pleasure to forward to you herewith, to be dealt with in any way you may think proper. Should you think them worthy of presentation to the Royal Society of Edinburgh for publication in their Transactions, it will be gratifying to me. The observations made with the 12 feet thermometer are now at an end, in consequence of the fracture of the instrument during a high wind last year; but, after rejecting those made immediately on the introduction of the instruments, say all those of 1842, there will still remain three entire years of trustworthy readings, which I hope may be found to be sufficient for any purpose for which such observations in a tropical region may have been considered desirable.

JNO. CALDECOTT.

Professor FORBES, Edinburgh.

EXPLANATION.

These three thermometers, made by Messrs ADIE and SON of Edinburgh, were put down on May 1, 1842. They are buried at the respective depths of 12 French feet, 6 French feet, and 3 French feet, on the top of the Observatory hill, which is composed of the stone called “laterite.” The situation is about 200 feet above the sea.

In December 1841 and January 1842, they were suspended in the Observatory, and compared with a standard thermometer by Traughton and Simms, as follows, viz. :—

No. 1, or the 12 feet thermometer, by a comparison made 12 times in 24 hours for 29 days, *i. e.*, by 348 comparisons, requires, in order to reduce it to the standard thermometer, the addition to the readings here given of 2°·133. The greatest deviation from this mean of any single comparison is 0°·54.

No. 2, or the 6 feet thermometer, by the same number of comparisons, requires the addition of 2°·172; the greatest deviation from which is 0°·69.

No. 3, or the 3 feet thermometer, by the same number of comparisons, requires the addition of 2°·922; the greatest deviation from which is 0°·57.

Latitude of Trevandrum Observatory,	8° 30' 32" N.
Longitude from Greenwich,	5 ^h 7 ^m 59 ^s E.

[It may here be stated, that the original registers furnished by Mr CALDECOTT include four observations, daily (except on Sundays), at 6 A.M., Noon, 6 P.M., and Midnight. The extent of the Tables is, consequently, very considerable; and, in printing them, it was necessary to ascertain whether these six-hourly observations possessed a value proportional to the great additional space which they would have occupied. A careful examination shewed that the variation from one hour to another, in the different thermometers, was due *mainly* to the influence of the heat of the air in expanding the *exposed* part of the column of spirit, and did not at all indicate the course of the *diurnal* curves at different depths; nor were there data given for eliminating this discrepancy. It was, therefore, decided to publish the 6 A.M. observations alone,* as representing fairly the general result, and as being less liable to error from the irregular expansion of the exposed column of spirit by the intense heat of the tropical sun.

It will be observed that all the temperatures in the Register, and the means, are UNCORRECTED for the large index error of the instruments. A *corrected* summary will be given, together with a few deductions, at the conclusion of the paper.—J. D. F.]

* The monthly means, four times a day, are, however, given in a separate Table.

When blanks occur, the liquid is above the Scale.

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain.	Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain.	
1842. May 1	°	°	°	°	in.	1842. July 1	°	°	°	°	in.	
	The Thermometers were put down this day.					0.1852	Sunday	84.90	84.21	81.62	76.35
2	83.80	84.02	83.40	82.58	0.0168	2	85.00	84.21	81.62	78.32	.....
3	83.91	84.16	83.54	84.40	.....	3					Sunday
4	84.03	84.37	83.78	84.00	.....	4	84.90	84.10	81.29	78.60	.....
5	84.11	84.54	83.89	79.71	0.1095	5	84.92	84.07	81.21	80.07	.....
6	84.22	84.74	84.10	79.79	0.3915	6	84.90	84.01	81.18	78.48	0.3409	
7	84.24	84.83	84.17	75.97	3.8596	7	84.88	83.89	81.00	75.28	0.7702	
8					0.9639	Sunday	8	84.88	83.82	81.20	76.60
9	84.90	84.82	83.85	77.33	0.6902	9	84.88	83.80	81.20	78.18	.....
10	84.44	85.21	83.55	78.41	0.4168	10					Sunday	
11	84.54	85.32	83.40	81.05	.....	11	84.82	83.71	81.05	78.04	.....
12	84.57	85.32	83.20	81.77	.....	12	84.04	83.70	80.94	79.57	.....
13	84.67	85.35	83.18	81.22	.....	13	84.83	83.68	80.88	80.45	0.0042
14	84.70	85.33	83.15	81.50	.....	14	84.82	83.60	80.70	80.21	.....
15					Sunday	15	84.80	83.57	80.79	76.81	0.4629
16	84.90	85.28	83.11	81.24	.....	16	84.76	83.49	80.65	74.37	1.6331
17	84.76	85.18	83.19	79.57	.....	17					0.2947
18	84.84	85.21	83.38	80.73	0.084	18	84.72	83.40	80.88	78.16	0.2063	
19	84.78	85.17	83.50	82.10	.....	19	84.74	83.41	80.70	78.77	0.0463
20	84.90	85.23	83.70	82.69	0.0379	20	84.80	83.40	80.74	79.85	.....
21	84.88	85.21	83.80	82.87	.....	21	84.78	83.42	80.79	80.44	.....
22					Sunday	22	84.67	83.31	80.70	80.42	0.0463
23	84.98	85.27	84.22	80.51	.....	23	84.66	83.30	80.72	80.25	.....
24	84.99	85.29	84.43	81.13	0.0505	24					Sunday	
25	84.88	85.34	84.52	82.58	.....	25	84.60	83.22	80.80	80.49	.....
26	85.02	85.48	84.70	77.44	0.3620	26	84.60	83.20	80.86	79.97	0.7197	
27	85.00	85.42	84.59	76.08	2.0667	27	84.55	83.17	80.90	78.03	0.5262	
28	85.20	85.54	84.70	75.00	0.5393	28	84.55	83.18	80.88	79.77	0.1179	
29					1.6878	Sunday	29	84.51	83.16	81.00	79.33	0.0084
30	85.08	85.61	83.66	74.87	2.7737	30	84.52	83.18	81.02	79.50	0.7745	
31	84.88	85.60	83.20	78.89	0.2736	31					Sunday	
Means	84.66	85.11	83.77	80.09	14.5134	Means	84.76	83.62	80.97	78.73	5.9516	
June 1	85.02	85.60	82.75	79.58	0.0758	Aug. 1	84.44	83.15	80.96	77.66	0.2652	
2	84.88	85.49	82.50	80.30	0.0210	2	84.45	83.17	80.95	78.33	0.0842	
3	85.14	85.41	82.34	79.18	0.4671	3	84.43	83.12	80.85	77.11	0.0589	
4	85.12	85.30	82.30	77.45	0.8712	4	84.42	83.16	80.91	78.09	0.0547	
5					0.4420	Sunday	5	84.38	83.11	80.71	78.93	0.0337
6	.....	85.01	81.63	76.34	4.1502	6	84.36	83.05	80.52	77.37	0.0295
7	.....	84.80	81.64	78.49	0.3956	7					0.0463
8	.....	84.69	81.30	80.53	0.0168	8	84.39	83.04	80.59	77.49	0.2947
9	.....	84.60	81.42	80.80	.....	9	84.33	83.00	80.55	78.98	.....
10	.....	84.55	81.43	80.97	.....	10	84.30	82.98	80.45	79.57	0.0421
11	.....	84.43	81.29	80.89	.....	11	84.31	82.92	80.41	78.81	0.4462
12					Sunday	12	84.30	82.91	80.35	79.24
13	.....	84.41	81.66	80.49	.....	13	84.23	82.85	80.39	73.91	0.4840
14	.....	84.30	81.60	80.60	0.3072	14					0.1979
15	.....	84.30	81.83	80.91	.....	15	84.23	82.80	80.39	76.07	0.1726
16	.....	84.30	81.90	81.37	.....	16	84.22	82.80	80.30	74.01	1.0691
17	.....	84.30	82.10	81.34	0.1136	17	84.18	82.79	80.10	74.84	0.0379
18	.....	84.33	82.17	81.34	0.0253	18	84.14	82.65	79.89	75.12	0.3031
19					Sunday	19	84.13	82.67	79.80	75.30	0.2021
20	.....	84.29	82.20	80.23	0.0982	20	84.15	82.61	79.50	77.42	.....
21	.....	84.30	82.38	78.42	0.8840	21					0.0168
22	85.10	84.30	82.49	80.33	0.0243	22	84.16	82.59	79.50	78.67	0.1347	
23	.....	84.30	82.50	78.47	0.0274	23	84.10	82.50	79.30	79.16	0.0084
24	85.00	84.34	82.50	77.17	0.8250	24	84.11	82.25	79.29	79.42	.....
25	85.00	84.35	82.21	77.56	.....	25	84.08	82.39	79.57	80.17	.....
26					Sunday	26	84.08	82.38	79.70	80.24
27	84.98	84.35	82.10	79.23	.....	27	84.08	82.30	79.70	80.17	0.0210
28	84.94	84.32	81.95	79.45	.....	28					0.3872
29	84.91	84.30	81.90	75.44	0.9890	29	84.10	82.27	80.05	80.17	0.0253	
30	84.96	84.30	81.87	75.02	0.0136	30	84.19	82.21	80.00	78.61	0.0084	
					Sunday	31	83.90	82.25	80.21	78.41
Means	.....	84.58	82.00	79.32	8.7473	Means	84.23	82.74	80.18	77.90	4.4240

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain.	
1842. Sept. 1	83.95	82.30	80.44	77.76	0.0168		1842. Nov. 1	83.68	83.49	81.61	76.11	0.0716	
2	83.96	82.31	80.30	79.34	.....		2	83.67	83.42	81.41	77.78	0.6524	
3	83.92	82.35	80.51	79.07	.....		3	83.66	83.40	81.23	77.64	0.0253	
4						Sunday	4	83.67	83.38	81.12	79.01	.....
5	83.89	82.35	80.45	79.39	0.0758		5	83.70	83.32	80.98	78.46	.....
6	83.82	82.40	80.60	78.71	.....		6						Sunday
7	83.84	82.47	80.76	79.35	.....		7	83.70	83.21	80.93	76.49	0.6397	
8	83.82	82.49	80.75	80.23	.....		8	83.69	83.10	80.59	76.57	0.3199	
9	83.80	82.51	81.02	80.45	.....		9	83.67	83.06	80.70	75.28	0.1684	
10	83.74	82.55	81.10	80.18	.....		10	83.69	83.01	80.62	75.42	0.8165	
11						Sunday	11	83.72	82.97	80.42	75.86	0.6272	
12	83.75	82.64	81.45	79.19	.....		12	83.70	82.93	80.32	76.50	0.2778	
13	83.77	82.73	81.64	79.45	0.0042		13						Sunday
14	83.78	82.80	81.72	79.18	0.0168		14	83.70	82.75	79.91	77.27	0.8165	
15	83.76	82.87	81.88	78.67	.....		15	83.66	82.61	79.70	78.05	0.0716	
16	83.72	82.92	81.96	79.02	.....		16	83.68	82.54	79.63	78.94	0.1179	
17	83.74	82.99	82.00	78.93	0.3114		17	83.66	82.45	79.50	78.41	1.4269	
18						Sunday	18	83.62	82.38	79.58	78.10	0.0126	
19	83.72	83.10	82.10	76.52	0.2063		19	83.64	82.30	79.52	79.22	.....
20	83.72	83.18	82.10	76.66	0.5261		20						Sunday
21	83.71	83.21	82.10	76.12	0.5262		21	83.54	82.19	79.79	79.25	.....
22	83.71	83.37	82.00	75.46	0.1010		22	83.56	82.17	79.90	79.32	.....
23	83.69	83.27	81.85	75.77	1.8604		23	83.58	82.19	79.85	80.06	.....
24	83.73	83.32	81.74	76.56	1.1744		24	83.58	82.20	80.09	78.62	0.3956	
25					0.9555	Sunday	25	83.51	82.11	79.91	78.32	.....
26	83.72	83.30	81.28	76.67	0.2105		26	83.52	82.19	80.25	78.54	0.0168	
27	83.72	83.26	81.11	76.37	1.3258		27						Sunday
28	83.74	83.25	80.85	77.87	0.3157		28	83.49	82.20	80.39	79.32	.....
29	83.71	83.12	80.78	78.82	0.0969		29	83.76	82.21	80.35	78.05	.....
30	83.73	83.10	80.70	79.46	.....		30	83.48	82.27	80.48	76.68	.....
Means	83.75	82.85	81.28	78.28	7.7238		Means	83.62	82.69	80.37	77.82	8.8053	
Oct. 1	83.72	83.00	80.55	77.84	.....		Dec. 1	83.29	82.19	80.35	76.79	.....
2						Sunday	2	83.43	82.29	80.52	78.01	.....
3	83.74	82.91	80.50	79.05	0.0379		3	83.41	82.31	80.55	78.32	.....
4	83.75	82.81	80.49	79.52	.....		4						Sunday
5	83.71	82.81	80.50	79.66	.....		5	83.36	82.30	80.45	76.38	.....
6	83.73	82.80	80.51	79.94	.....		6	83.41	82.38	80.66	77.30	.....
7	83.72	82.79	80.50	80.29	.....		7	83.39	82.37	80.67	78.87	.....
8	83.73	82.75	80.64	80.69	.....		8	83.38	82.40	80.65	77.86	.....
9						Sunday	9	83.34	82.43	80.83	78.36	0.0674	
10	83.69	82.69	80.78	80.02	.....		10	83.36	82.45	80.79	79.17	.....
11	83.72	82.75	80.85	80.07	.....		11						Sunday
12	83.75	82.70	80.99	79.75	.....		12	83.36	82.57	81.15	80.20	0.0295	
13	83.70	82.72	81.09	80.32	.....		13	83.35	82.59	81.19	80.21	0.0631	
14	83.68	82.75	81.25	80.29	.....		14	83.34	82.61	81.25	79.29	.....
15	83.65	82.72	81.35	80.44	.....		15	83.34	82.70	81.44	79.97	.....
16						Sunday	16	83.32	82.70	81.40	80.08	0.0042	
17	83.64	82.87	81.70	79.22	0.2273		17	83.32	82.76	81.63	79.63	.....
18	83.65	82.93	81.90	80.19	.....		18						Sunday
19	83.64	83.02	82.05	80.04	0.0337		19	83.29	82.80	81.70	78.65	.....
20	83.63	83.07	82.20	79.48	0.1894		20	83.26	82.90	81.96	78.32	.....
21	83.65	83.10	82.09	78.69	0.1979		21	83.30	82.91	81.90	78.91	.....
22	83.61	83.19	82.31	79.01	.....		22	83.32	83.05	82.15	79.07	.....
23					0.0126	Sunday	23	83.32	83.11	82.28	78.60	.....
24	83.65	83.36	82.39	79.63	.....		24	83.31	83.15	82.15	79.14	.....
25	83.64	83.40	82.30	77.69	0.2021		25						Sunday
26	83.63	83.42	82.30	78.97	.....		26	83.27	83.19	82.25	80.02	.....
27	83.63	83.41	82.23	77.45	0.6776		27	83.35	83.35	82.55	79.91	.....
28	83.64	83.48	82.14	75.47	2.4075		28	83.36	83.40	82.60	79.68	.....
29	83.65	83.54	82.06	78.50	0.0631		29	83.40	83.51	82.78	81.07	.....
30					0.1473	Sunday	30	83.35	83.41	82.59	.....	.....
31	83.68	83.50	81.70	74.50	1.2964		31	83.34	83.49	82.70	.....	.....
Means	83.68	83.04	81.44	79.10	5.4928		Means	83.34	82.89	81.52	78.96	0.1642	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 6 P.M. to 6 P.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 6 P.M. to 6 P.M.	
1843. Jan. 1	°	°	°	°	in.		1843. March 1	°	°	°	°	in.	
2	83-35	83-52	82-68	79-77	0-090	Sunday	2	84-11	85-43	85-42	82-05	.....
3	83-42	83-80	83-15	78-59	.....		3	84-12	85-52	85-49	82-01	.....
4	83-47	83-87	83-29	79-06	.....		4	84-12	85-58	85-67	82-32	.....
5	83-41	83-77	83-05	79-30	.....		5	84-18	85-51	85-50	82-97	.....	Sunday
6	83-47	83-96	83-31	79-98	.....		6	84-19	85-74	86-09	82-33	.....
7	83-45	83-99	83-00	76-52	.....	Sunday	7	84-23	85-85	86-24	81-94	.....
8					0-037		8	84-22	85-90	86-29	82-79	0-082	
9	83-52	84-10	83-15	76-55	0-033		9	84-24	85-98	86-42	82-41	.....
10	83-56	84-12	83-17	75-79	0-183		10	84-27	86-02	86-48	80-49	0-186	
11	83-51	84-01	82-79	77-43	.....		11	84-29	86-12	86-61	80-55	0-558	Sunday
12	83-46	84-17	83-11	79-53	.....		12					0-803	
13	83-60	84-18	82-78	79-60	.....		13	84-44	86-29	86-73	81-03	.....
14	83-60	84-15	82-50	80-27	.....	Sunday	14	84-38	86-28	86-61	81-01	.....
15							15	84-40	86-41	86-50	81-56	.....
16	83-46	83-99	83-00	78-25	.....		16	84-39	86-31	86-10	82-10	.....
17	83-61	84-01	82-29	78-61	0-465		17	84-46	86-48	86-22	81-15	.....
18	83-66	84-05	82-50	79-66	0-287		18	84-45	86-49	86-17	82-46	.....	Sunday
19	83-67	84-02	82-51	80-31	.....		19						
20	83-64	83-26	82-76	70-31	.....		20	84-52	86-50	86-22	84-15	.....
21	83-70	84-00	82-51	79-91	0-059		21	84-58	86-54	86-33	82-83	.....
22						Sunday	22	84-53	86-51	86-37	83-95	.....
23	83-70	83-90	82-21	89-91	.....		23	84-62	86-55	86-58	83-60	.....
24	83-77	83-96	82-50	80-17	.....		24	84-65	86-62	86-74	82-72	.....
25	83-75	83-95	82-50	80-90	.....		25	84-68	86-63	86-82	82-44	0-092	Sunday
26	83-74	83-92	82-54	79-67	.....		26						
27	83-78	83-93	82-52	77-37	.....		27	84-72	86-73	87-08	83-18	.....
28	83-75	83-91	82-37	77-36	.....		28	84-72	86-81	87-01	83-03	.....
29						Sunday	29	84-76	86-74	87-11	83-88	.....
30	83-76	83-92	82-71	78-90	.....		30	84-76	86-90	87-14	83-53	.....
31	83-75	83-91	82-55	79-92	.....		31	84-80	86-92	87-18	82-36	.....
Means	83-61	83-94	82-75	79-05	1-154		Means	84-43	86-27	86-41	82-36	1-721	
Feb. 1	83-76	83-94	82-80	79-60	.....		April 1	84-82	86-79	87-25	78-60	0-420	Sunday
2	83-81	84-02	83-07	80-29	.....		2					0-122	
3	83-79	83-99	82-85	79-53	.....		3	84-82	.....	87-38	78-86	0-007	Sunday
4	83-82	84-08	83-20	81-92	0-001		4	84-88	.....	87-35	80-16	.....
5						Sunday	5	84-92	.....	87-16	79-71	.....
6	83-84	84-18	83-15	79-29	0-005		6	84-95	.....	86-94	82-30	0-071	
7	83-80	84-18	83-54	79-27	0-027		7	84-92	.....	86-60	83-72	.....
8	83-84	84-23	83-38	79-56	.....		8	84-90	.....	86-35	83-95	.....
9	83-29	84-19	83-25	80-21	.....		9						Sunday
10	83-36	84-20	83-36	81-21	.....		10	85-00	.....	86-29	84-45	.....
11	83-85	84-37	83-49	81-46	.....	Sunday	11	84-90	.....	86-35	84-01	.....
12							12	85-10	.....	86-47	84-29	.....
13	83-84	84-46	83-56	81-11	.....		13	85-00	.....	86-49	82-69	.....
14	83-90	84-47	83-82	80-52	.....		14	.....	.....	86-60	81-45	0-227	
15	83-85	84-42	83-89	79-56	.....		15	.....	.....	86-75	82-51	0-012	
16	83-91	84-53	84-18	79-24	.....		16	.....	.....			1-476	Sunday
17	83-90	84-60	84-33	79-53	.....		17	.....	.....	86-81	80-20	0-042	
18	83-92	84-68	84-45	79-24	.....		18	.....	.....	86-69	77-46	.....
19						Sunday	19	.....	.....	86-60	78-36	1-180	
20	83-94	84-81	84-70	79-44	.....		20	.....	.....	86-38	77-46	1-544	
21	83-84	84-80	84-70	79-41	.....		21	.....	.....	86-10	81-49	1-411	
22	83-95	84-92	84-86	79-64	.....		22	.....	.....	85-71	76-36	1-099	
23	84-02	84-98	84-96	80-27	.....		23	.....	.....			0-134	Sunday
24	84-00	85-09	85-00	79-91	.....		24	.....	.....	85-05	82-57	0-228	
25	83-99	85-10	85-00	79-51	.....		25	.....	.....	84-84	81-50	.....
26						Sunday	26	.....	.....	84-65	80-55	1-437	
27	84-05	85-26	85-23	81-13	.....		27	.....	86-61	84-51	82-53	0-001	
28	84-08	85-24	85-32	81-23	.....		28	.....	86-52	84-49	83-72	0-163	
							29	.....	86-50	84-50	84-09	.....
							30						Sunday
Means	83-85	84-53	84-00	80-09	0-033		Means	84-92	86-60	86-17	81-58	9-274	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 6 P.M. to 6 P.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 6 P.M. to 6 P.M.	
1843. May 1	.....	86.30	84.50	84.60	.....		1843. July 1	84.40	82.51	79.53	75.30	0.177	
2	.....	86.27	84.58	83.04	0.007		2	.....	.....	.....	.....	0.654	Sunday
3	.....	86.18	84.63	85.39	0.057		3	84.34	82.37	79.32	74.34	0.573	
4	.....	86.20	84.76	84.82	.....		4	84.31	82.31	79.28	76.16	1.144	
5	.....	86.10	84.80	83.75	.....		5	84.29	82.25	79.12	76.50	0.298	
6	.....	86.12	84.86	85.57	.....	Sunday	6	84.25	82.17	78.89	77.54	0.048	
7	.....	.....	.....	.....	.....		7	84.22	82.15	79.05	76.31	.....
8	.....	86.10	85.17	80.34	0.204		8	84.15	82.05	78.90	74.33	1.411	Sunday
9	.....	86.12	85.30	84.33	.....		9	.....	.....	.....	.....	1.301	
10	.....	86.12	85.38	83.57	0.014		10	84.11	81.88	78.79	75.31	0.965	
11	.....	86.15	85.37	80.66	0.172		11	84.09	81.85	78.77	76.60	0.338	
12	.....	86.17	85.38	83.60	.....		12	84.01	81.71	78.60	77.65	0.241	
13	.....	86.25	85.55	81.80	.....	Sunday	13	83.95	81.61	78.50	75.30	0.598	
14	.....	.....	.....	.....	.....		14	83.91	81.55	78.50	76.42	0.787	
15	.....	86.32	85.44	81.37	0.299		15	83.92	81.55	78.54	75.92	0.342	
16	.....	86.26	85.38	78.46	0.122		16	.....	.....	.....	.....	0.270	Sunday
17	.....	86.21	85.40	78.24	0.563		17	83.81	81.41	78.49	78.58	.....
18	.....	86.35	85.30	81.46	.....		18	83.82	81.46	78.61	78.44	.....
19	.....	86.30	85.25	80.32	.....		19	83.80	81.47	78.67	78.19	.....
20	.....	86.28	84.99	80.97	.....	Sunday	20	83.71	81.40	78.65	77.01	0.166	
21	.....	.....	.....	.....	2.407		21	83.74	81.40	78.25	78.41	0.282	
22	.....	86.27	84.50	76.99	2.267		22	83.79	81.40	78.58	78.62	0.192	Sunday
23	.....	86.16	83.98	77.25	1.647		23	.....	.....	.....	.....	0.080	
24	.....	86.12	83.45	78.81	1.471		24	83.62	81.38	78.86	78.95	.....
25	.....	85.92	82.81	79.97	.....		25	83.60	81.40	78.95	78.64	0.041	
26	.....	85.78	82.52	76.89	0.261		26	83.59	81.38	78.85	78.16	.....
27	.....	85.62	82.19	77.90	2.343		27	83.55	81.39	78.90	78.08	0.062	
28	.....	.....	.....	.....	0.902	Sunday	28	83.52	81.35	78.89	79.33	.....
29	.....	85.25	81.17	76.50	1.188		29	83.51	81.40	78.95	79.57	.....
30	.....	85.07	81.41	77.23	1.320		30	.....	.....	.....	.....	0.465	Sunday
31	.....	84.94	81.22	78.97	0.745		31	83.45	81.35	79.00	79.30	0.464	
Means	.....	86.03	84.26	80.62	15.989		Means	83.90	81.70	78.82	77.29	10.899	
June 1	.....	84.73	81.05	81.35	0.432		Aug. 1	83.41	81.35	78.99	79.05	.....
2	.....	84.58	80.90	80.16	0.065		2	83.39	81.31	78.99	79.55	.....
3	.....	84.45	81.01	79.23	0.196		3	83.39	81.37	79.05	80.00	.....
4	.....	.....	.....	.....	0.042	Sunday	4	83.44	81.38	79.07	79.91	.....
5	.....	84.25	81.10	79.22	0.211		5	83.43	81.35	79.10	78.70	.....
6	.....	84.17	81.15	78.74	0.451		6	.....	.....	.....	.....	0.003	Sunday
7	.....	84.13	81.30	77.62	0.128		7	83.24	81.35	79.11	79.28	.....
8	.....	84.09	81.25	79.18	0.560		8	83.27	81.42	79.30	79.49	.....
9	.....	84.04	81.35	79.60	.....		9	83.28	81.41	79.29	79.72	.....
10	.....	83.99	81.30	77.55	0.178	Sunday	10	83.23	81.44	79.31	78.62	.....
11	.....	.....	.....	.....	.....		11	83.30	81.40	79.29	78.79	.....
12	.....	83.89	81.21	78.60	0.162		12	83.18	81.48	79.38	79.41	.....	Sunday
13	85.00	83.88	81.24	78.60	0.240		13	.....	.....	.....	.....	.....
14	85.00	83.81	81.00	79.60	0.454		14	83.19	81.50	79.53	79.53	.....
15	84.96	83.77	81.16	76.36	2.322		15	83.17	81.61	79.60	79.69	.....
16	84.90	83.65	80.85	74.97	1.941		16	83.13	81.51	79.70	79.85	.....
17	84.89	83.54	80.65	75.55	1.263		17	83.13	81.59	79.79	79.37	.....
18	.....	.....	.....	.....	1.768	Sunday	18	83.10	81.59	79.90	77.11	0.108	
19	84.81	83.26	81.14	79.39	0.020		19	83.07	81.60	80.04	76.23	0.505	
20	84.85	83.28	81.17	78.31	.....		20	.....	.....	.....	.....	0.089	Sunday
21	84.75	83.08	79.85	78.05	0.147		21	83.06	81.60	80.02	77.31	0.229	
22	84.69	83.02	80.03	78.89	0.275		22	83.05	81.70	80.22	78.05	0.101	
23	84.65	82.98	79.91	77.26	0.230		23	83.00	81.73	80.20	78.19	0.541	
24	84.84	82.93	79.99	75.56	1.168		24	83.04	81.81	80.21	79.85	0.009	
25	.....	.....	.....	.....	.....	Sunday	25	83.04	81.88	80.24	80.55	.....
26	84.59	82.87	79.90	79.17	0.858		26	83.00	81.89	79.90	80.66	.....
27	84.56	82.90	80.05	78.60	0.038		27	.....	.....	.....	.....	.....	Sunday
28	84.54	82.84	80.02	76.61	1.767		28	83.01	81.88	80.12	79.82	.....
29	84.48	82.62	79.60	76.72	1.780		29	82.95	81.85	80.13	79.09	0.029	
30	84.44	82.54	79.55	76.50	0.236		30	82.95	81.85	80.09	77.67	0.084	
							31	83.00	81.90	80.21	78.87	0.400	
Means	84.75	83.59	80.68	78.21	16.932		Means	83.16	81.58	79.66	79.05	2.098	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	
1843. Sept. 1	82-99	81-91	80-31	77-79	0-800		1843. Nov. 1	82-95	82-48	81-00	80-72	.....
2	82-98	81-91	80-31	76-48	1-872		2	83-10	82-90	81-06	80-72	0-010	
3					0-565	Sunday	3	82-99	82-56	81-10	79-62	.....
4	82-95	81-95	80-20	79-80	0-093		4	82-95	82-51	80-99	81-42	0-566	
5	82-92	81-99	80-10	79-10	.....		5						Sunday
6	82-98	81-98	80-09	79-09	.....		6	82-96	82-52	81-16	79-30	0-343	
7	82-95	81-91	79-81	79-17	.....		7	82-95	82-50	81-05	79-92	0-059	
8	82-91	81-88	79-80	79-58	.....		8	82-92	82-52	81-12	81-05	.....
9	82-91	81-85	79-65	79-64	.....		9	82-98	82-60	81-25	81-52	0-352	
10					.....	Sunday	10	82-96	82-57	81-25	80-40	0-256	
11	82-91	81-81	79-61	79-60	.....		11	82-96	82-60	81-32	79-99	0-107	
12	82-94	81-80	79-70	80-22	.....		12						Sunday
13	82-91	81-79	79-70	79-83	.....		13	82-98	82-50	81-39	81-01	.....
14	82-92	81-75	79-92	80-18	.....		14	82-91	82-60	81-40	78-02	0-042	
15	82-87	81-70	79-85	80-40	.....		15	82-99	82-68	81-46	77-99	.....
16	82-90	81-75	79-98	80-12	.....		16	82-98	82-68	81-45	80-19	.....
17					.....	Sunday	17	82-95	82-68	81-49	80-19	.....
18	82-90	81-81	80-30	79-74	.....		18	82-91	82-67	81-30	79-45	.....
19	82-91	81-80	80-27	79-13	.....		19						Sunday
20	82-86	81-85	80-56	79-81	.....		20	82-90	82-65	81-18	79-39	.....
21	82-85	81-88	80-61	80-06	.....		21	82-95	82-74	81-21	79-80	.....
22	82-85	81-92	80-88	80-14	.....		22	82-95	82-69	81-52	80-22	.....
23	82-88	82-03	80-90	80-79	.....		23	82-96	82-70	81-20	79-75	0-078	
24					.....	Sunday	24	82-90	82-65	80-93	79-38	.....
25	82-80	81-97	81-02	80-44	.....		25	82-95	82-68	81-00	78-51	.....
26	82-85	82-19	81-23	80-37	.....		26						Sunday
27	82-81	82-22	81-30	79-94	.....		27	82-95	82-67	81-07	79-40	.....
28	82-81	82-28	81-47	79-45	.....		28	83-01	82-75	81-15	79-38	.....
29	82-85	82-40	81-64	79-95	.....		29	82-95	82-63	81-01	79-77	.....
30	82-84	82-40	81-67	79-01	.....		30	82-90	82-60	80-95	77-99	.....
Means	82-90	81-95	80-46	79-54	3-330		Means	82-96	82-63	81-19	79-72	1-813	
Oct. 1					0-616	Sunday	Dec. 1	82-92	82-61	80-99	76-80	.....
2	82-82	82-87	81-88	78-23	.....		2	82-94	82-60	81-10	78-42	.....
3	82-81	82-62	81-81	78-39	0-297		3					1-468	Sunday
4	82-82	82-68	81-87	78-05	0-046		4	83-02	82-86	81-25	76-70	3-200	
5	82-90	82-82	81-90	77-51	0-266		5	82-97	82-70	81-15	76-90	3-880	
6	82-89	82-81	81-86	77-32	0-335		6	82-98	82-71	81-10	75-90	2-480	
7	82-88	82-84	81-61	78-22	.....		7	82-98	82-62	80-20	77-78	.....
8					.....	Sunday	8	82-95	82-58	80-12	79-07	0-212	
9	82-85	82-82	81-27	79-22	.....		9	82-97	82-68	80-13	78-79	0-688	
10	82-91	82-88	81-50	77-19	1-239		10						Sunday
11	82-94	82-87	81-22	76-36	1-689		11	82-91	82-32	79-72	77-50	.....
12	82-89	82-80	81-06	78-00	.....		12	82-94	82-28	79-76	77-27	1-435	
13	82-91	82-82	81-01	78-48	.....		13	82-90	82-10	79-80	78-50	0-037	
14	82-90	82-71	80-75	79-13	.....		14	82-94	82-16	79-82	78-35	.....
15					0-092	Sunday	15	82-94	82-10	79-85	76-06	.....
16	82-91	82-68	80-50	78-89	.....		16	82-86	82-02	79-92	74-20	.....
17	82-98	82-66	80-61	79-78	.....		17						Sunday
18	82-95	82-61	80-60	80-30	0-012		18	82-81	81-95	79-92	78-81	.....
19	82-95	82-56	80-64	80-37	0-019		19	82-88	82-00	79-98	76-50	.....
20	82-85	82-48	80-55	79-44	.....		20	82-86	81-98	79-96	78-50	.....
21	82-90	82-48	80-61	79-42	2-290		21	82-92	82-05	79-85	79-57	.....
22					0-150	Sunday	22	82-86	82-02	79-89	80-00	.....
23	83-00	82-49	80-80	76-92	0-135		23	82-82	82-08	79-95	77-08	.....
24	82-99	82-49	80-81	79-31	0-046		24						Sunday
25	83-00	82-46	80-89	80-59	.....		25	82-84	81-92	79-85	75-12	.....
26	82-98	82-42	80-85	81-00	.....		26	82-89	82-02	79-93	77-57	.....
27	82-95	82-45	80-80	79-10	0-420		27	82-80	81-92	80-00	79-70	.....
28	83-00	82-50	80-95	78-39	0-598		28	82-80	81-95	80-00	79-32	.....
29					0-051	Sunday	29	82-82	82-00	80-00	78-70	.....
30	83-10	82-50	80-91	80-14	.....		30	82-80	82-00	80-10	78-30	.....
31	82-96	82-49	81-08	80-54	0-531		31						Sunday
Means	82-95	82-65	81-09	78-86	8-830		Means	82-90	82-24	80-17	77-69	13-400	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	
1844.	°	°	°	°	in.		1844.	°	°	°	°	in.	
Jan. 1	82-60	82-06	80-10	77-25	.....		March 1	83-45	84-90	84-38	81-28	.....
2	82-75	82-01	80-32	76-53	.....		2	83-50	84-92	84-50	82-50	.....
3	82-71	82-00	80-45	76-54	.....		3						Sunday
4	82-75	82-08	80-45	76-69	.....		4	83-54	85-02	84-60	82-33	.....
5	82-75	82-10	80-53	77-73	.....		5	83-51	85-00	84-58	83-11	.....
6	82-82	82-06	80-57	79-61	.....		6	83-61	85-22	84-90	83-51	.....
7						Sunday	7	83-64	85-20	85-12	83-68	.....
8	82-75	82-24	81-71	80-09	0-360		8	83-66	85-25	85-16	83-52	.....
9	82-80	82-00	80-42	78-81	.....		9	83-65	85-28	85-30	82-96	.....
10	82-75	82-31	80-90	77-59	.....		10						Sunday
11	82-75	82-34	81-04	78-42	.....		11	83-70	85-42	85-65	82-48	.....
12	82-78	82-38	81-15	77-43	.....		12	83-75	85-52	85-80	82-51	.....
13	82-73	82-40	81-12	77-84	.....		13	83-75	85-57	85-88	81-92	.....
14						Sunday	14	83-78	85-60	86-00	82-70	.....
15	82-75	82-54	81-22	79-36	.....		15	83-84	85-72	86-18	83-85	.....
16	82-77	82-60	81-30	78-90	0-078		16	83-84	85-82	86-28	84-55	.....
17	82-78	82-65	81-30	78-85	.....		17						Sunday
18	82-78	82-60	81-20	78-70	.....		18	83-90	85-97	86-50	84-45	.....
19	82-79	82-70	81-39	77-92	.....		19	83-92	86-05	86-60	84-41	.....
20	82-75	82-69	81-38	78-95	.....		20	83-95	86-16	86-73	84-55	.....
21						Sunday	21	83-92	86-24	86-82	85-81	.....
22	82-80	82-80	81-48	79-12	.....		22	84-02	86-32	87-01	84-82	.....
23	82-88	82-82	81-54	78-93	.....		23	84-03	86-38	87-10	83-71	0-610	
24	82-80	82-92	81-54	79-45	.....		24						Sunday
25	82-84	82-92	81-70	80-25	.....		25	84-21	86-57	87-45	83-89	.....
26	82-81	82-90	81-69	79-96	.....		26	84-14	86-68	87-57	84-05	.....
27	82-85	83-02	81-94	79-58	.....		27	84-16	86-72	87-83	85-58	.....
28						Sunday	28	84-20	.....	87-50	84-22	.....
29	82-90	83-16	82-14	78-42	.....		29	84-21	.....	87-25	84-08	.....
30	82-88	83-12	82-22	78-40	.....		30	84-28	.....	87-58	83-95	.....
31	82-86	83-14	82-25	80-46	.....		31						Sunday
Means	82-78	82-54	81-19	78-54	0-438		Means	83-85	85-72	86-16	83-61	0-610	
Feb. 1	82-98	83-21	82-30	80-46	.....		April 1	84-32	Above	87-61	85-12	.....
2	82-90	83-31	82-42	81-02	.....		2	84-38	the	87-70	84-00	0-058	
3	82-95	83-40	82-56	81-89	.....		3	84-40	Scale.	87-75	84-40	.....
4						Sunday	4	84-47	.....	87-90	85-07	.....
5	82-92	83-48	82-58	80-22	.....		5	84-48	.....	87-90	84-50	.....
6	83-02	83-56	82-63	80-99	.....		6	84-41	.....	87-71	85-40	.....
7	82-98	83-57	82-90	80-26	.....		7						Sunday
8	82-98	83-64	83-07	80-19	.....		8	84-58	.....	87-90	84-17	.....
9	83-02	83-70	83-22	80-75	.....		9	84-64	.....	87-92	81-42	0-245	
10	83-04	83-80	83-42	80-95	.....		10	84-68	.....	87-90	85-07	.....
11						Sunday	11	84-65	.....	87-88	85-27	.....
12	83-08	83-94	83-66	79-33	.....		12	84-71	.....	87-94	84-83	.....
13	83-08	83-97	83-65	80-06	.....		13	84-75	.....	87-92	84-13	.....
14	83-10	84-08	83-77	79-52	.....		14						Sunday
15	83-13	84-12	83-86	80-90	.....		15	84-86	.....	87-79	84-86	.....
16	83-12	84-25	84-18	79-88	.....		16	84-90	.....	87-72	85-17	.....
17	83-12	84-24	84-02	78-30	.....		17	84-80	.....	87-81	83-18	0-148	
18						Sunday	18	84-90	.....	87-80	81-88	0-247	
19	83-18	84-40	84-10	77-20	.....		19	84-90	.....	87-81	83-93	.....
20	83-20	84-41	84-11	78-10	.....		20	84-88	.....	87-79	85-10	.....
21	83-23	84-52	84-20	79-25	.....		21						Sunday
22	83-28	84-52	84-18	80-33	.....		22	.....	.....	87-65	85-19	.....
23	83-26	84-63	84-13	79-61	.....		23	.....	.....	87-64	85-77	.....
24	83-28	84-67	84-10	79-85	.....		24	.....	.....	87-59	85-10	.....
25						Sunday	25	.....	.....	87-61	84-68	.....
26	83-37	84-77	84-23	80-35	.....		26	.....	.....	87-61	84-42	.....
27	83-40	84-82	84-40	81-31	0-038		27	.....	.....	87-73	83-32	0-037	
28	83-46	84-82	84-48	81-94	.....		28					1-125	Sunday
29	83-44	84-86	84-31	82-30	.....		29	.....	.....	87-84	84-97	.....
							30	.....	.....	87-82	85-38	.....
Means	83-14	84-11	83-62	80-13	0-038		Means	84-65	.....	87-78	84-53	1-860	

1844.						1844.						
Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	
May 1	°	°	°	°	in.	July 1	°	°	°	°	in.	
2	Above	Above	87.93	85.65	.....	2	.....	84.48	81.92	80.19	0.128
3	the	the	87.94	85.65	.....	3	.....	84.36	81.98	79.98	0.587
4	Scale.	Scale.	87.88	84.33	0.213	4	.....	84.28	82.07	81.21	.....
5	87.70	85.38	.....	5	.....	84.28	82.05	80.88	.....
6	87.67	84.41	.....	6	.....	84.23	82.03	80.45	.....
7	87.62	84.47	.....	7	.....	84.26	82.03	78.26	0.011	
8	87.53	83.25	.....	8	.....	84.17	81.98	75.29	0.335	
9	87.50	82.31	.....	9	85.00	84.15	81.90	77.77	0.186	
10	87.54	84.21	.....	10	84.98	84.18	81.93	77.65	0.124	
11	87.54	84.02	.....	11	84.99	84.16	81.78	77.08	0.580	
12	87.42	82.16	.....	12	84.90	84.09	81.78	76.50	0.245	
13	87.30	84.48	.....	13	84.90	84.05	81.76	77.67	0.245	
14	87.36	82.88	0.160	14	84.97	83.98	81.45	79.45
15	87.25	83.41	.....	15	84.88	83.98	81.32	79.87	.....
16	87.22	83.64	0.218	16	84.90	83.91	81.22	80.38	.....
17	87.15	80.80	0.552	17	84.90	83.85	81.08	78.80	0.112	
18	87.09	80.39	1.093	18	84.86	83.75	81.02	77.86	0.055	
19	86.94	81.20	.....	19	84.79	83.76	81.08	78.71	0.035	
20	86.73	80.77	20	84.70	83.62	81.03	78.33	0.015
21	86.48	80.43	0.445	21	84.68	83.55	81.00	79.43	.....
22	86.23	79.11	0.400	22	84.67	83.55	81.05	79.53	0.132	
23	86.08	80.97	0.636	23	84.68	83.52	81.11	76.02	0.834	
24	85.61	79.73	0.205	24	84.61	83.48	81.03	76.85	0.069	
25	85.40	80.21	0.075	25	84.60	83.45	81.05	79.54	0.094	
26	85.27	78.91	0.020	26	84.58	83.49	81.10	79.34
27	85.09	77.60	0.176	27	84.56	83.44	81.12	78.41	0.210	
28	84.93	77.36	1.577	28	84.50	83.41	81.00	79.09	0.093	
29	29	.....	.....	.....	.....	.....
30	30	.....	.....	.....	.....	.....
31	31	.....	.....	.....	.....	.....
Means	86.93	82.11	6.601	Means	84.78	83.91	81.48	78.69	4.647	
June 1	84.60	79.11	0.043	Aug. 1	84.49	83.35	81.00	77.75	0.131	
2	84.07	79.52	0.075	2	84.50	83.47	81.07	75.64	0.262	
3	84.07	79.52	0.138	3	84.46	83.39	80.98	76.70	0.169	
4	86.62	83.80	81.62	0.043	4	84.39	83.30	80.93	78.25	0.284
5	86.54	83.66	80.05	0.345	5	84.35	83.20	80.85	79.26	0.312	
6	86.38	83.50	79.22	0.240	6	84.39	83.25	80.78	79.65	.....
7	86.24	83.45	79.50	0.120	7	84.36	83.24	80.62	77.73	1.016	
8	86.20	83.38	80.24	.....	8	84.35	83.24	80.71	75.85	0.459	
9	0.159	9	84.29	83.10	80.45	77.75	0.481	
10	85.98	83.22	80.49	.....	10	84.29	83.09	80.35	78.77	0.283	
11	85.88	83.10	81.80	.....	11	84.26	82.98	80.29	78.41	0.147	
12	85.81	83.07	80.07	0.130	12	84.23	82.94	80.22	78.63	0.058	
13	85.72	82.85	79.84	0.043	13	84.28	82.88	80.18	80.07	.....
14	85.62	82.89	77.96	1.434	14	84.18	82.82	80.12	79.82	.....
15	85.50	82.78	76.93	0.811	15	84.22	82.79	80.22	79.30	0.027	
16	85.36	82.48	78.67	0.265	16	84.15	82.70	80.21	78.37	0.073
17	85.25	82.27	80.86	.....	17	84.10	82.60	80.20	78.14	0.030	
18	85.12	82.06	81.09	.....	18	84.08	82.62	80.37	78.06	0.134	
19	85.10	82.00	81.40	.....	19	84.10	82.68	80.40	79.20	.....
20	84.93	81.82	79.90	0.109	20	84.02	82.62	80.35	79.67	.....
21	84.72	81.80	79.72	0.193	21	84.00	82.59	80.38	79.64	.....
22	0.055	22	83.98	82.62	80.50	79.85
23	84.62	81.86	79.57	0.254	23	84.00	82.66	80.51	79.85	.....
24	84.55	81.76	80.09	0.848	24	83.91	82.60	80.61	78.98	.....
25	84.51	81.81	80.54	.....	25	83.91	82.58	80.50	79.77	.....
26	84.61	81.88	81.36	.....	26	83.88	82.61	80.67	79.62	.....
27	84.45	81.91	81.43	.....	27	83.91	82.67	80.71	79.36	.....
28	84.40	81.88	80.52	0.851	28	.....	.....	.....	.....	.....
29	0.082	29	.....	.....	.....	.....	.....
30	30	.....	.....	.....	.....	.....
31	31	.....	.....	.....	.....	.....
Means	85.40	82.72	80.06	7.389	Means	84.19	82.91	80.54	78.65	4.066	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	
1844. Sept. 1	°	°	°	°	in.		1844. Nov. 1	°	°	°	°	in.	
2	83-85	82-66	80-80	77-62	.....	Sunday	2	83-50	82-96	81-51	78-30	0-745	
3	83-80	82-65	80-86	76-48	0-264		3	83-50	83-02	81-50	77-70	0-042	Sunday
4	83-82	82-73	81-03	78-66	.....		4	83-48	83-08	81-62	78-15	0-412	
5	83-84	82-75	81-12	79-15	.....		5	83-54	83-12	81-50	79-06	1-218	
6	83-86	82-77	81-16	78-56	0-406		6	83-50	83-11	81-52	79-16	0-249	
7	83-80	82-79	81-03	79-10	0-214		7	83-40	83-10	81-45	80-30	.....
8					0-538	Sunday	8	83-48	83-15	81-40	80-66	.....
9	83-75	82-84	81-13	79-85	.....		9	83-50	83-18	81-40	80-52	0-822	
10	83-76	82-87	81-12	79-85	.....		10						Sunday
11	83-72	82-81	81-00	78-92	.....		11	83-49	83-13	81-38	79-36	0-193	
12	83-74	82-88	81-01	79-62	.....		12	83-49	83-19	81-45	79-25	0-036	
13	83-71	82-89	80-78	79-81	.....		13	83-48	83-12	81-41	80-55	0-025	
14	83-72	82-87	81-02	79-73	.....		14	83-51	83-19	81-50	80-25	.....
15						Sunday	15	83-47	83-12	81-49	81-12	.....
16	83-71	82-87	81-00	79-97	.....		16	83-48	83-10	81-41	80-90	0-060	Sunday
17	83-66	82-85	81-06	80-01	.....		17						
18	83-68	82-81	81-09	79-55	.....		18	83-48	83-12	81-45	81-55	.....
19	83-66	82-88	81-16	80-54	.....		19	83-48	83-18	81-82	81-31	.....
20	83-64	82-82	81-14	79-72	.....		20	83-48	83-19	81-99	81-06	.....
21	83-64	82-90	81-30	80-65	.....		21	83-47	83-18	81-94	79-78	.....
22						Sunday	22	83-45	83-21	82-04	78-43	.....
23	83-64	82-91	81-50	80-48	.....		23	83-43	83-22	82-09	80-92	.....
24	83-66	83-02	81-67	81-20	.....		24						Sunday
25	83-62	82-99	81-72	81-50	.....		25	83-47	83-33	82-20	79-65	0-004	
26	83-62	83-09	81-90	79-53	0-040		26	83-44	83-31	82-20	79-54	.....
27	83-68	83-08	82-05	80-50	1-060		27	83-45	83-34	82-24	80-90	.....
28	83-62	83-18	82-29	81-25	.....		28	83-49	83-42	82-29	80-70	.....
29						Sunday	29	83-46	83-44	82-21	81-31	.....
30	83-50	83-26	82-61	80-50	.....		30	83-48	83-47	82-25	81-99	.....
Means	83-71	82-89	81-23	79-70	2-527		Means	83-48	83-19	81-74	80-02	3-873	
Oct. 1	83-48	83-29	82-59	79-02	0-591		Dec. 1						Sunday
2	83-58	83-41	82-69	78-69	0-182		2	83-45	83-40	82-39	80-14	.....
3	83-63	83-50	82-70	80-45	.....		3	83-46	83-51	82-30	78-92	.....
4	83-61	83-50	82-62	78-42	1-288		4	83-46	83-53	82-40	78-60	.....
5	83-52	83-50	82-58	76-77	1-914		5	83-45	83-51	82-45	78-52	.....
6					4-203	Sunday	6	83-50	83-55	82-52	78-25	.....
7	83-37	83-34	82-50	76-55	1-043		7	83-48	83-61	82-50	78-48	0-050	
8	83-60	83-69	82-10	77-18	1-249		8					0-256	Sunday
9	83-55	83-66	81-74	76-12	2-204		9	83-51	83-70	82-56	78-26	0-014	
10	83-55	83-52	81-35	76-96	0-416		10	83-50	83-75	82-58	78-17	.....
11	83-58	83-49	81-00	77-96	0-020		11	83-51	83-75	82-50	78-73	.....
12	83-56	83-40	80-81	77-26	.....		12	83-50	83-78	82-41	79-36	.....
13					0-014	Sunday	13	83-54	83-81	82-50	79-59	.....
14	83-56	83-20	80-61	79-96	.....		14	83-52	83-78	82-38	80-01	.....
15	83-55	83-10	80-60	79-22	.....		15						Sunday
16	83-56	83-07	80-65	80-00	.....		16	83-52	83-72	82-30	80-45	.....
17	83-56	83-01	80-69	80-58	.....		17	83-58	83-88	82-39	79-32	0-230	
18	83-56	82-98	80-70	79-08	.....		18	83-61	83-82	82-42	77-97	1-216	
19	83-57	82-88	80-68	80-25	.....		19	83-50	83-80	82-35	78-77	.....
20						Sunday	20	83-59	83-85	82-42	78-77	.....
21	83-58	82-92	80-90	79-59	.....		21	83-60	83-81	82-40	78-86	0-011	
22	83-58	82-91	80-90	78-21	0-795		22					0-012	Sunday
23	83-56	82-90	81-01	80-51	.....		23	83-61	83-80	82-32	78-47	.....
24	83-55	82-87	81-02	79-87	0-286		24	83-57	83-78	82-20	78-00	.....
25	83-52	82-92	81-11	80-37	.....		25	83-61	83-89	82-21	78-29	.....
26	83-54	82-91	81-12	80-08	0-036		26	83-61	83-80	82-12	78-98	.....
27					0-042	Sunday	27	83-64	83-80	82-12	80-17	.....
28	83-55	82-95	81-18	80-24	.....		28	83-65	83-80	82-15	79-79	0-049	
29	83-50	82-95	81-30	78-97	.....		29					0-058	Sunday
30	83-51	82-97	81-39	78-37	0-146		30	83-68	83-78	82-11	80-11	.....
31	83-51	83-00	81-40	78-82	.....		31	83-64	83-79	82-08	78-57	1-804	
Means	83-55	83-18	81-41	78-94	14-399		Means	83-55	83-73	82-35	79-09	3-700	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	
1845.	°	°	°	°	in.		1845.	°	°	°	°	in.	
Jan. 1	83-64	83-84	82-14	76-99	0-005		March 1	83-94	85-28	84-88	82-61	.....
2	83-65	83-70	82-08	80-23	.....		2					0-004	Sunday
3	83-65	83-78	82-11	79-50	0-406		3	84-00	85-36	84-87	82-16	.....
4	83-68	83-77	82-08	79-46	0-705		4	84-00	85-38	84-80	82-36	.....
5					0-690	Sunday	5	84-00	85-44	84-99	84-36	.....
6	83-66	83-72	82-07	78-33	.....		6	84-06	85-48	84-90	80-38	0-534	
7	83-65	83-68	82-09	78-55	.....		7	84-06	85-54	85-00	79-38	0-022	
8	83-59	83-74	82-04	79-16	.....		8	84-06	85-45	85-03	82-52	.....
9	83-66	83-70	82-00	79-36	.....		9						Sunday
10	83-69	83-70	82-04	77-98	.....		10	84-11	85-52	85-12	81-43	.....
11	83-68	83-65	81-95	79-17	.....		11	84-13	85-60	85-08	82-43	.....
12						Sunday	12	84-17	85-65	85-10	79-23	1-291	
13	83-65	83-67	82-11	79-09	.....		13	84-18	85-65	85-05	79-13	0-263	
14	83-65	83-64	81-80	77-66	.....		14	84-20	85-70	85-05	80-74	0-322	
15	83-68	83-63	81-61	77-51	.....		15	84-24	85-70	85-01	78-89	0-140	
16	83-68	83-60	81-55	78-86	.....		16					0-470	Sunday
17	83-65	83-59	81-60	78-15	.....		17	84-27	85-71	84-84	80-12	0-040	
18	83-66	83-52	81-38	78-31	.....		18	84-28	85-68	84-60	78-58	1-928	
19						Sunday	19	84-27	85-68	84-68	80-50	0-286	
20	83-69	83-56	81-50	77-85	.....		20	84-32	85-70	84-42	80-62	.....
21	83-60	83-50	81-46	79-63	.....		21	84-35	85-67	84-38	83-00	.....
22	83-68	83-47	81-35	79-42	.....		22	84-32	85-61	84-20	84-06	.....
23	83-68	83-50	81-50	79-69	.....		23						Sunday
24	83-68	83-55	81-61	80-43	.....		24	84-44	85-61	84-21	84-92	.....
25	83-68	83-48	81-58	82-13	.....		25	84-44	85-58	84-13	84-91	.....
26						Sunday	26	84-44	85-53	84-20	85-64	0-003	
27	83-66	83-52	81-94	78-97	0-280		27	84-45	85-58	84-25	84-89	.....
28	83-66	83-52	81-98	79-33	.....		28	84-49	85-61	84-40	84-92	.....
29	83-66	83-57	82-16	81-07	.....		29	84-52	85-50	84-49	84-89	.....
30	83-68	83-60	82-20	80-98	.....		30						Sunday
31	83-65	83-59	82-18	80-54	.....		31	84-50	85-51	84-60	85-05	.....
Means	83-66	83-62	81-86	79-20	2-086		Means	84-24	85-57	84-70	82-22	5-303	
Feb. 1	83-66	83-70	82-40	80-04	.....		April 1	84-50	85-49	84-70	84-23	0-075	
2						Sunday	2	84-49	85-50	84-82	83-90	.....
3	83-70	83-77	82-65	80-09	.....		3	84-52	85-58	84-92	83-50	.....
4	83-68	83-78	82-70	80-49	.....		4	84-60	85-62	85-08	83-84	.....
5	83-65	83-81	82-70	80-26	.....		5	84-55	85-65	85-20	83-76	.....
6	83-68	83-90	82-80	80-30	.....		6						Sunday
7	83-68	83-92	82-90	80-65	.....		7	84-55	85-72	85-31	84-91	.....
8	83-65	83-90	82-92	81-13	.....		8	84-55	85-79	85-40	85-15	.....
9						Sunday	9	84-54	85-76	85-48	83-95	.....
10	83-64	84-05	83-05	81-47	.....		10	84-55	85-88	85-54	84-30	.....
11	83-76	84-12	83-12	81-08	.....		11	84-64	85-79	85-61	84-58	.....
12	83-70	84-15	83-41	81-04	.....		12	84-60	86-00	85-78	84-45	.....
13	83-70	84-18	83-50	81-78	.....		13						Sunday
14	83-72	84-21	83-55	81-30	.....		14	84-66	86-12	86-01	84-22	.....
15	83-71	84-32	83-75	81-00	.....		15	84-60	86-15	86-15	84-20	.....
16						Sunday	16	84-64	86-13	86-19	84-74	.....
17	83-75	84-46	84-10	81-44	.....		17	84-66	86-20	86-25	84-57	.....
18	83-72	84-50	84-20	82-01	.....		18	84-70	86-37	86-56	83-75	0-280	
19	83-72	84-60	84-32	81-83	.....		19	84-68	86-45	86-50	83-02	0-078	
20	83-82	84-70	84-50	82-09	.....		20					0-275	Sunday
21	83-82	84-78	84-61	80-29	.....		21	84-64	86-50	86-39	82-60	.....
22	83-80	84-70	84-69	78-85	0-006		22	84-78	86-65	86-92	83-71	.....
23					0-960	Sunday	23	84-78	86-69	86-81	84-42	.....
24	83-78	84-95	84-90	80-64	.....		24	84-78	86-70	86-65	81-72	0-162	
25	83-86	85-08	84-99	80-41	.....		25	84-75	86-69	86-70	84-35	.....
26	83-88	85-10	85-01	81-89	.....		26	84-82	.....	86-50	83-19	.....
27	83-87	85-15	84-90	81-26	.....		27						Sunday
28	83-88	85-18	84-95	81-26	.....		28	84-84	.....	86-41	84-97	.....
							29	84-98	.....	86-35	83-11	.....
							30	84-88	.....	86-50	84-83	.....
Means	83-74	84-38	83-78	80-94	0-966		Means	84-66	86-06	85-72	84-00	0-870	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	
1845. May	°	°	°	°	in.		1845. July	°	°	°	°	in.	
1	85-00	.....	86-50	81-61	0-351		1	84-86	83-99	80-98	77-11	0-236	
2	84-92	.....	86-60	81-52	1-351		2	84-85	83-84	80-90	80-05	.....
3	84-98	.....	86-64	81-91	0-357		3	84-80	83-70	80-75	80-89	.....
4					0-595	Sunday	4	84-75	83-70	80-55	80-81	.....
5	84-95	.....	86-64	78-92	0-490		5	84-76	83-50	80-50	80-43	.....
6	84-90	.....	86-52	80-81	0-550		6						Sunday
7	84-90	.....	86-41	82-67	0-372		7	84-72	83-43	80-60	79-57	0-153	
8	.....	.....	86-45	81-77	0-201		8	84-65	83-37	80-58	79-85	0-087	
9	.....	.....	85-99	79-49	1-211		9	84-65	83-30	80-60	79-93	0-021	
10	.....	.....	85-70	80-48	0-607		10	84-60	83-32	80-52	80-82	0-093	
11						Sunday	11	84-62	83-25	80-76	80-80	.....
12	.....	.....	85-36	82-51	.....		12	84-58	83-20	80-22	78-29	0-140	
13	.....	86-70	85-10	82-90	0-080		13						Sunday
14	.....	86-65	85-00	82-63	.....		14	84-50	83-07	80-60	77-21	0-170	
15	.....	86-60	84-80	82-43	.....		15	84-50	83-15	80-70	74-59	0-182	
16	.....	86-50	84-71	82-90	.....		16	84-48	83-13	80-75	75-33	0-575	
17	.....	86-42	84-60	83-27	.....		17	84-43	83-19	80-89	77-51	0-274	
18						Sunday	18	84-50	83-05	80-55	78-77	0-502	
19	.....	86-22	84-42	81-55	0-880		19	84-40	83-10	80-50	79-79	0-050	
20	.....	86-25	84-48	81-89	0-230		20						Sunday
21	.....	86-17	84-52	82-57	0-042		21	84-38	83-00	80-32	80-12	.....
22	.....	86-10	84-40	83-11	.....		22	84-35	83-00	80-41	78-57	0-160	
23	.....	86-10	84-50	83-78	.....		23	84-30	82-90	80-40	79-56	0-020	
24	.....	86-10	84-50	83-39	.....		24	84-26	82-84	80-37	80-21	.....
25						Sunday	25	84-25	82-88	80-34	80-06	.....
26	.....	86-11	84-53	82-83	0-156		26	84-40	82-82	80-41	80-17	.....
27	.....	85-98	84-55	82-79	.....		27						Sunday
28	.....	85-99	84-47	83-72	.....		28	84-21	82-85	80-61	80-26	.....
29	.....	86-00	84-60	83-04	0-021		29	84-15	82-76	80-62	80-77	.....
30	.....	85-92	84-61	79-51	0-320		30	84-15	82-75	80-60	80-76	.....
31	.....	85-90	84-55	78-81	2-158		31	84-10	82-80	80-78	80-81	.....
Means	84-94	86-22	85-23	82-08	9-902		Means	84-49	83-18	80-59	79-37	2-788	
June						Sunday	Aug.						
1	.....	85-88	84-49	78-95	0-087		1	84-10	82-80	80-70	81-08	0-078	
2	.....	85-90	84-41	79-10	0-097		2	84-08	82-78	80-70	81-12	.....
3	.....	85-86	84-35	80-77	.....		3						Sunday
4	.....	85-52	84-32	79-52	0-471		4	84-05	82-80	81-05	80-76	.....
5	.....	85-70	84-09	80-41	0-030		5	84-00	82-80	81-02	81-34	.....
6	.....	85-86	83-91	82-04	0-003		6	83-90	82-80	81-24	80-90	0-029	
7	.....					Sunday	7	83-98	82-86	80-96	81-61	.....
8							8	83-96	82-80	81-30	81-50	.....
9	.....	85-72	83-74	80-38	0-922		9	83-94	82-92	81-53	80-99	0-043	
10	.....	85-58	83-50	79-69	0-022		10						Sunday
11	.....	85-52	83-49	78-45	1-649		11	83-89	82-87	81-49	80-57	.....
12	.....	85-45	83-00	80-27	.....		12	83-95	82-89	81-75	81-00	.....
13	.....	85-41	83-33	79-94	0-048		13	83-85	83-05	81-91	81-09	0-149	
14	.....	85-39	83-30	78-09	.....		14	83-86	83-11	81-90	78-50	.....
15					0-655	Sunday	15	83-85	83-15	82-00	77-70	0-133	
16	.....	85-10	82-98	75-99	1-552		16	83-80	83-18	82-00	79-90	.....
17	.....	85-13	82-80	78-23	.....		17						Sunday
18	.....	85-11	82-71	79-53	0-144		18	83-90	83-11	81-90	77-55	0-526	
19	.....	85-09	82-73	80-58	.....		19	83-76	83-22	81-82	79-28	.....
20	.....	84-91	82-31	81-49	.....		20	83-81	83-33	81-91	79-70	.....
21	.....	84-88	82-02	80-07	.....		21	83-79	83-36	81-90	79-77	.....
22					0-047	Sunday	22	83-80	83-35	81-89	79-75	0-124	
23	.....	84-68	81-90	76-75	1-276		23	83-81	83-34	81-89	80-73	.....
24	.....	84-59	81-86	76-03	0-981		24						Sunday
25	.....	84-40	81-90	76-36	0-744		25	83-76	83-40	81-74	81-31	.....
26	85-00	84-20	81-77	76-30	0-355		26	83-88	83-37	81-89	81-23	.....
27	84-98	84-60	81-69	78-40	0-112		27	83-79	83-36	81-75	80-23	.....
28	84-92	84-34	81-61	76-43	0-857		28	83-75	83-30	81-75	79-68	0-052	
29					1-280	Sunday	29	83-75	83-32	81-81	78-93	0-005	
30	84-85	84-08	81-33	76-31	1-059		30	83-76	83-40	81-98	79-48	.....
							31						Sunday
Means	84-94	85-17	82-95	78-80	13-584		Means	83-89	83-10	81-60	79-27	1-139	

Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.		Date.	No. 1. 12 feet Therm. 6 A.M.	No. 2. 6 feet Therm. 6 A.M.	No. 3. 3 feet Therm. 6 A.M.	Mean Temp. of Air.	Rain 8½ A.M. to 8½ A.M.	
1845.	°	°	°	°	in.		1845.	°	°	°	°	in.	
Sept. 1	83-80	83-39	81-94	79-43	.....		Nov. 1	84-10	83-72	81-87	80-41	.....	Sunday
2	83-75	83-40	82-15	80-00	.....		2					1-273	
3	83-78	83-42	82-10	80-01	.....		3	84-10	83-72	82-12	79-96	.....
4	83-79	83-51	82-40	79-04	0-030		4	84-10	83-75	82-11	79-87	.....
5	83-59	83-55	82-37	78-31	0-104		5	84-08	83-73	82-20	79-58	.....
6	83-76	83-55	82-55	78-92	.....	Sunday	6	84-05	83-75	82-15	81-00	.....
7					0-025		7	84-10	83-72	82-20	79-22	2-138	
8	83-70	83-42	82-50	79-70	0-047		8	84-05	83-81	82-22	79-41	.....
9	83-70	83-60	82-61	79-47	.....		9						Sunday
10	83-80	83-75	82-65	79-82	.....		10	84-00	83-86	82-30	78-79	.....
11	83-75	83-72	82-61	79-54	.....		11	84-00	83-85	82-25	80-01	.....
12	83-70	83-72	82-60	79-52	.....		12	84-00	83-85	82-24	79-97	0-015	
13	83-77	83-75	82-62	80-35	.....	Sunday	13	84-05	83-90	82-18	76-93	0-420	
14							14	84-00	83-90	82-12	79-06	0-281	
15	83-85	83-88	82-87	80-25	.....		15	84-02	83-89	82-10	80-03	0-007	Sunday
16	83-79	83-85	82-93	80-08	.....		16						
17	83-80	83-81	82-90	79-57	.....		17	84-00	83-84	82-05	79-90	.....
18	83-78	83-95	83-20	81-15	.....		18	83-95	83-78	81-98	77-90	.....
19	83-80	84-00	83-39	80-30	.....		19	84-00	83-72	81-94	78-43	0-200	
20	83-76	84-02	83-50	80-89	.....	Sunday	20	84-00	83-82	81-90	79-33	.....
21							21	84-00	83-85	81-81	79-64	0-390	
22	83-80	84-16	83-76	80-67	.....		22	84-00	83-75	81-80	79-87	0-142	Sunday
23	83-82	84-20	83-80	80-14	.....		23					1-077	
24	83-80	84-15	83-91	79-59	.....		24	84-03	83-70	81-84	80-48	.....
25	83-80	84-32	83-99	80-45	.....		25	83-92	83-74	81-59	79-55	0-386	
26	83-80	84-40	84-10	80-42	.....		26	83-98	83-70	81-70	79-54	.....
27	83-85	84-48	84-22	81-47	0-012	Sunday	27	83-96	83-60	81-72	79-49	.....
28					0-030		28	83-89	83-59	81-70	79-94	.....
29	83-88	84-61	84-22	81-31	.....		29	83-92	83-57	81-70	79-39	.....	Sunday
30	83-85	84-64	84-25	81-32	.....		30						
Means	83-78	83-89	83-08	80-68	0-248		Means	84-01	83-36	81-99	79-51	5-422	
Oct. 1	83-88	84-69	84-30	80-81	.....		Dec. 1	83-92	83-50	81-51	79-22	.....
2	83-88	84-78	84-25	80-10	0-403		2	83-96	83-51	81-75	76-80	2-348	
3	83-92	84-75	84-30	80-61	0-113		3	83-74	83-34	81-33	77-46	0-042	
4	83-98	84-92	84-50	80-61	0-070	Sunday	4	83-70	83-29	81-30	78-80	.....
5							5	83-84	83-42	81-40	79-90	.....
6	83-98	84-91	84-50	79-98	.....		6	83-92	83-48	81-22	79-99	.....	Sunday
7	83-95	84-96	84-50	77-35	3-656		7					0-031	
8	83-95	84-95	84-45	76-79	0-992		8	83-90	83-46	81-23	79-47	0-376	
9	83-98	84-98	84-50	78-42	0-314		9	83-90	83-35	81-15	78-49	0-102	
10	84-00	84-99	84-50	78-14	0-415		10	83-88	83-29	81-10	79-58	.....
11	84-00	85-01	84-02	77-32	2-530	Sunday	11	83-90	83-50	81-12	79-08	0-040	
12					2-771		12	83-86	83-25	81-20	79-02	.....
13	84-00	84-98	84-54	77-04	3-892		13	83-86	83-21	81-20	78-91	.....	Sunday
14	84-05	85-00	83-05	76-94	0-734		14						
15	84-00	85-00	82-20	77-58	1-251		15	84-00	83-44	81-30	79-44	.....
16	84-16	84-80	81-98	79-50	0-143		16	83-84	83-20	81-19	80-76	.....
17	84-14	84-65	81-91	80-60	0-100		17	83-84	83-20	81-21	80-51	.....
18	84-15	84-51	81-70	79-35	.....	Sunday	18	83-82	83-21	81-18	79-97	0-035	
19							19	83-80	83-20	81-17	78-81	.....
20	84-16	84-22	81-50	80-05	.....		20	83-78	83-16	81-20	79-29	.....	Sunday
21	84-22	84-22	81-50	80-37	.....		21						
22	84-15	84-12	81-45	80-54	.....		22	83-79	83-19	81-29	80-11	0-026	
23	84-21	84-02	81-41	80-10	.....		23	83-82	83-20	81-10	79-59	.....
24	84-15	83-90	81-32	80-85	.....		24	83-90	83-18	81-15	80-14	.....
25	84-10	83-88	81-30	80-64	0-074	Sunday	25	83-75	83-19	81-24	79-85	0-640	
26							26	83-76	83-26	81-42	77-60	1-356	
27	84-16	83-78	81-34	81-00	.....		27	83-80	83-31	81-39	79-54	.....	Sunday
28	84-17	83-75	81-60	80-48	.....		28						
29	84-13	83-71	81-72	80-08	.....		29	83-75	83-28	81-32	79-84	.....
30	84-11	83-69	81-80	79-45	.....		30	83-76	83-44	81-52	79-56	.....
31	84-10	83-73	81-85	79-90	.....		31	83-70	83-30	81-32	79-50	.....
Means	84-06	84-48	82-82	79-43	17-458		Means	83-80	83-31	81-28	79-31	4-997	

ABSTRACT

Monthly Means of Terrestrial Temperature, at the Trevandrum Observatory.

Lat. 8° 30' 32" N. Long. 5° 7' 59" E.

	No. 1. 12 feet Thermometer.				No. 2. 6 feet Thermometer.				No. 3. 3 feet Thermometer.				Mean Temp. of Air.	Rain.	Average of Four Daily Observations, corrected for Index Error.			
	A.M. 6.	Noon.	P.M. 6.	Mid.	A.M. 6.	Noon.	P.M. 6.	Mid.	A.M. 6.	Noon.	P.M. 6.	Mid.						
1842.																		
May	84.66	84.74	84.73	84.57	85.11	85.25	85.20	85.18	83.77	83.92	83.80	83.79	80.09	14.5134	86.808	87.357	86.742	
June	.....	.....	.....	.....	84.58	84.66	84.57	84.48	82.00	82.10	82.11	82.01	79.32	8.7473	.....	86.742	84.977
July	84.76	84.83	84.87	84.76	83.62	83.61	83.59	83.62	80.97	81.07	81.03	80.99	78.73	5.9516	86.938	85.782	83.901	
Aug.	84.23	84.29	84.24	84.23	82.74	82.82	82.77	82.74	80.18	80.29	80.22	80.21	77.90	4.4240	86.380	84.940	83.148	
Sept.	83.75	83.86	83.79	83.74	82.85	82.92	82.88	82.87	81.28	81.38	81.31	81.29	78.28	7.7238	85.918	85.052	84.237	
Oct.	83.68	83.78	83.71	83.69	83.04	83.16	83.07	82.99	81.44	81.60	81.51	81.49	79.10	5.4928	85.843	85.237	84.437	
Nov.	83.62	83.72	83.65	83.61	82.69	82.80	82.73	82.69	80.37	80.45	80.38	80.34	77.82	8.8053	85.783	84.899	83.307	
Dec.	83.34	83.49	83.41	83.37	82.89	82.98	82.85	82.82	81.52	81.73	81.58	81.51	78.96	0.1642	85.535	85.057	84.507	
1843.																		
Jan.	83.61	83.74	83.67	83.58	83.94	84.14	84.06	84.02	82.75	82.92	82.86	82.82	79.05	1.154	85.783	86.212	85.759	
Feb.	83.85	84.05	83.99	83.92	84.53	84.78	84.70	84.54	81.00	84.30	84.16	84.04	80.09	0.033	86.085	86.809	87.047	
Mar.	84.43	84.60	84.52	84.46	86.27	86.68	86.37	86.31	86.41	86.70	86.55	86.48	82.36	1.721	86.643	88.579	89.457	
April	84.92	85.01	84.94	84.96	86.60	86.68	86.59	86.53	86.17	86.33	86.16	86.11	81.58	9.274	87.090	88.772	89.114	
May	.....	.....	.....	.....	86.03	86.12	86.07	85.99	84.26	84.38	84.27	84.21	80.62	15.989	.....	88.224	87.202
June	84.75	84.78	84.74	84.71	83.59	83.59	83.56	83.53	80.68	80.65	80.60	80.58	78.21	16.932	86.878	85.739	83.549	
July	83.90	83.96	83.90	83.88	81.70	81.77	81.70	81.66	78.82	78.91	78.85	78.84	77.29	10.899	86.043	83.879	81.777	
Aug.	83.16	83.22	83.17	83.16	81.58	81.67	81.60	81.58	79.66	79.79	79.74	79.72	79.05	2.098	85.310	83.779	82.649	
Sept.	82.90	82.99	82.97	82.94	81.95	82.06	82.00	81.96	80.46	80.55	80.45	80.44	79.54	3.330	85.083	84.164	83.397	
Oct.	82.95	83.01	82.96	82.94	82.65	82.74	82.66	82.65	81.09	81.18	81.11	81.09	78.86	8.830	85.098	84.847	84.039	
Nov.	82.96	83.05	83.00	82.95	82.63	82.75	82.68	82.54	81.19	81.33	81.25	81.20	79.72	1.813	85.123	84.822	84.167	
Dec.	82.90	83.00	82.92	82.89	82.24	82.35	82.26	82.22	80.17	80.26	80.20	80.10	77.69	13.400	85.060	84.439	83.104	
1844.																		
Jan.	82.78	82.92	82.84	82.78	82.54	82.73	82.64	82.58	81.19	81.43	81.30	81.20	78.54	0.438	84.963	84.794	84.202	
Feb.	83.14	83.29	83.21	83.17	84.11	84.34	84.23	84.15	83.62	83.90	83.74	83.64	80.13	0.038	85.335	86.379	86.647	
Mar.	83.85	84.04	83.94	83.89	85.72	85.92	85.80	85.73	86.16	86.51	86.33	86.28	83.61	0.610	86.063	87.964	89.242	
April	84.65	84.77	84.68	84.65	.....	.....	.....	.....	87.78	88.06	87.86	87.80	84.53	1.860	86.820	.....	90.797
May	.....	.....	.....	.....	.....	.....	.....	.....	86.93	87.06	86.94	86.84	82.11	6.601	.....	.....	89.864
June	.....	.....	.....	.....	85.40	85.49	85.38	85.34	82.72	82.82	82.70	82.65	80.06	7.389	.....	87.574	85.644
July	84.78	84.84	84.79	84.74	83.91	84.01	83.91	83.86	81.48	81.57	81.49	81.44	78.69	4.647	.....	86.094	84.417
Aug.	84.19	84.27	84.21	84.15	82.91	83.01	82.92	82.89	80.54	80.63	80.55	80.50	78.65	4.066	86.338	85.104	83.477	
Sept.	83.71	83.80	83.74	83.69	82.89	83.03	82.95	82.90	81.23	81.44	81.35	81.29	79.70	2.527	85.868	85.114	84.249	
Oct.	83.55	83.66	83.59	83.53	83.18	83.28	83.22	83.17	81.41	81.52	81.42	81.36	78.94	14.399	85.715	85.384	84.349	
Nov.	83.48	83.59	83.51	83.47	83.19	83.33	83.24	83.19	81.74	81.92	81.81	81.76	80.02	3.873	85.645	85.409	84.729	
Dec.	83.55	83.78	83.59	83.54	83.73	83.91	83.80	83.73	82.35	82.53	82.41	82.36	79.09	3.700	85.748	85.964	85.334	
1845.																		
Jan.	83.66	83.80	83.71	83.65	83.62	83.79	83.68	83.62	81.86	82.30	81.91	81.85	79.20	2.086	85.838	85.850	84.902	
Feb.	83.74	83.91	83.82	83.74	84.38	84.79	84.49	84.40	83.78	84.06	83.92	83.84	80.94	0.966	85.933	86.687	86.822	
Mar.	84.24	84.39	84.28	84.22	85.57	85.74	85.61	85.54	84.70	84.88	84.73	84.68	82.22	5.303	86.415	87.787	87.669	
April	84.66	84.79	84.72	84.66	84.06	86.20	86.13	86.06	85.72	86.20	86.09	86.03	84.00	0.870	86.840	88.284	88.932	
May	84.94	.....	84.91	84.84	86.22	86.24	86.22	86.17	85.23	85.40	85.23	85.15	82.08	9.902	.....	.....	88.174
June	84.94	84.98	84.96	84.92	85.17	85.31	85.15	85.03	82.95	83.04	82.89	82.81	78.80	13.584	.....	87.337	85.844
July	84.49	84.59	84.52	84.46	83.18	83.29	83.18	83.14	80.59	80.75	80.63	80.57	79.37	2.788	86.658	85.369	83.557	
Aug.	83.89	83.99	83.90	83.85	83.10	83.24	83.17	83.11	81.60	81.77	81.65	81.58	79.27	1.139	86.035	85.327	84.572	
Sept.	83.78	83.90	83.82	83.76	83.89	84.05	83.97	83.89	83.08	83.28	83.17	83.10	80.68	0.248	85.948	86.122	86.079	
Oct.	84.06	84.20	84.09	84.03	84.48	84.60	84.49	84.41	82.82	82.96	82.85	82.80	79.43	17.458	86.228	86.667	85.779	
Nov.	84.01	84.14	84.06	84.00	83.36	83.52	83.42	83.35	81.99	82.15	82.06	82.00	79.51	5.422	86.185	85.584	84.972	
Dec.	83.80	84.01	83.88	83.84	83.31	83.45	83.30	83.28	81.28	81.44	81.32	81.26	79.31	4.997	86.015	85.507	84.247	

Remarks on the Preceding Observations. By Professor J. D. FORBES.

Mr CALDECOTT'S observations possess an extraordinary interest from being the first of the kind prosecuted between the tropics, from the great care and extent of the observations, and from the circumstances being altogether comparable with those of observations lately made in Europe. [The depths of the thermometers are the same as those at Brussels, Edinburgh, and Greenwich.]

In conformity with Mr CALDECOTT'S suggestion, I have had the *corrected* means of 1843-4-5 united, so as to give the mean temperature of each month (the observations of 1842 being omitted). The results are given in the following Table. The readings of Nos. 1 and 2 are deficient in some of the months, owing to the liquid having risen above the scale:—

MEAN OF THREE YEARS, 1843—5.

	No. 1. 12 feet Thermo- meter.	No. 2. 6 feet Thermo- meter.	No. 3. 3 feet Thermo- meter.	Air Temperature.
January	85·528	85·618	84·954	78·930
February	85·784	86·625	86·838	80·386
March	86·373	88·110	88·789	82·730
April	86·916	88·527*	89·614	83·370
May	.....	88·224†	88·413	81·603
June	86·878†	86·883	85·012	79·023
July	86·537	85·114	83·250	78·450
August	85·894	84·736	83·566	78·990
September	85·633	85·133	84·575	79·973
October	85·680	85·632	84·722	79·076
November	85·651	85·271	84·622	79·750
December	85·607	85·303	84·228	78·030
Means	86·043	86·264	85·715	80·025
* Mean of Two Years only.		† Result of 1843 only.		

The following conclusions are plainly deducible:—

I. The Temperature of the ground at Trevandrum is from 5° to 6° Fahr. *higher* than that of the air. This result is confirmed by observations on the temperature of springs and wells at Trevandrum, which have been obligingly communicated to me by Major-General CULLEN of the Madras Artillery. These observations are printed in the "Proceedings" of this Society.

II. When the monthly means of the thermometers are projected, so as to shew the curves of annual temperature, they are found to have one great inflection and a smaller one. The principal maximum of the temperature of the AIR occurs about the beginning of April, after which the rainy season sets in, and the annual

curve goes through its extreme range in three months; the principal minimum occurring about the middle of July. The remaining fluctuations are comparatively insignificant, but indicate a slight maximum about the middle of October.

III. The epochs of temperature are retarded with the depth below the surface in the usual manner, and, at the same time, casual fluctuations disappear, and the ranges diminish. At 12 French feet, the principal maximum occurs five weeks later than in the open air, and the range is still at least a degree and a half.

From these facts, it is easy to infer that the phenomena of the propagation of heat into the ground near the equator resemble those of temperate latitudes, though modified in extent and character. Mr CALDECOTT's experiments conclusively establish (as he himself has pointed out) the error of the doctrine of BOUSSINGAULT (at least for the eastern hemisphere), that the annual temperature near the equator remains unchanged at the depth of a foot below the surface in the shade. This mistake it is the more important to correct, because M. POISSON has attempted to confirm his mathematical theories of heat by applying them to this alleged fact.*

Mr CALDECOTT's experiments appear farther to prove a considerable excess of the temperature of the earth above that of the air at Trevandrum. This result is in opposition to the opinion of KUPFFER, which supposes the earth temperature to be *less* than that of the air between the tropics, and that of BOUSSINGAULT, which supposes them to be the same.

The results of Mr CALDECOTT are confirmed in both particulars by Captain NEWBOLD of the Madras Army, in a paper lately published in the London Philosophical Transactions.†

* Théorie de la Chaleur, p. 508.

† For 1845, p. 125.