

III. ATMOSPHERIC ELECTRICITY

Atmospheric electricity data have been published since 1962. Table I contains the hourly average values of the potential gradient expressed in V/m. Hourly averages have been taken only from hours having a recording period of 30 minutes or more. If values were available only for part of an hour the average is entered in square brackets []. These data have been used in the determination of the monthly and daily means. Values uncertain for some reason are entered in round brackets () and have not been used in calculating of monthly and daily means. Daily means of each day with 24 hours of recording are entered. However, loss of a maximum of one hour's data out of twelve (for example, on account of instrument maintenance or calibration) has not precluded entering this mean value. In hours marked by S the value of the potential gradient exceeded permanently or several times the measuring limits of the equipment making the determination of an hourly average impossible. The directions of the deviations are marked by signs.

Table II gives the hourly means of the quantities of positive and negative charges transported by point-discharge for each month. The values are expressed in 10^{-6} Asec/hour.

All data are presented in universal time (GMT).

Tables were compiled by F. MÄRCZ. Both the equipments and the methods of measurement of potential gradient and point-discharge have been described in the paper by P. BENCZE and F. MÄRCZ: „Atmosphärisch-elektrische und ionosphärische Messungen im Observatorium bei Nagycenk”, Observatoriumsberichte des Geophysikalischen Forschungslaboratoriums der Ungarischen Akademie der Wissenschaften vom Jahre 1966, Sopron, 1967.

I.

Hourly means of the potential gradient

January

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	200	180	190	200	190	200	[160]	160	180	160	130	100	50
2.	-20	-50	60	90	90	10	30	60	200	220	160	[100]	50
3.	-120	-70	-70	-110	-100	-80	-110	-80	—	-60	-80	-20	-10
4.	80	120	140	130	140	110	70	40	20	20	[40]	30	30
5.	+S	+S	160	+S	160	130	60	130	120	80	[130]	[130]	150
6.	-80	-130	-230	-180	-150	-110	-70	-80	-20	-70	[10]	30	-70
7.	50	60	30	-10	50	40	20	10	20	50	[30]	30	30
8.	50	20	20	-70	-80	-110	-70	-40	[10]	120	20	10	-50
9.	40	90	120	90	90	120	170	110	130	[90]	120	170	180
10.	-70	-90	10	80	100	70	90	90	—	—	-40	0	90
11.	100	120	130	60	30	30	70	80	[70]	110	90	120	130
12.	160	200	150	130	60	130	110	80	[0]	0	20	20	-40
13.	80	80	80	80	80	80	70	70	10	30	[80]	[90]	90
14.	60	10	10	-50	30	60	20	70	30	80	[100]	140	130
15.	60	90	100	110	120	110	120	120	140	[140]	140	150	150
16.	90	80	100	110	100	110	110	90	80	[90]	60	40	80
17.	20	30	60	70	90	80	60	—	—	[-10]	-20	50	10
18.	-10	-20	70	0	0	-10	40	40	0	50	10	[-10]	20
19.	40	-10	0	0	-50	-30	20	20	-10	20	[10]	50	60
20.	30	40	60	10	20	10	-30	-30	0	30	[-50]	-20	-60
21.	50	70	30	-10	-50	10	-10	40	-10	[-10]	50	50	70
22.	130	160	150	160	130	140	200	200	210	+S	+S	230	200
23.	90	140	130	160	140	100	140	80	100	+S	130	120	80
24.	140	100	110	110	120	150	110	120	—	[120]	20	-30	10
25.	-60	-40	0	10	-40	-30	-60	-10	-40	-50	[-40]	-20	40
26.	100	130	130	120	120	130	120	90	130	130	[130]	120	150
27.	-100	-40	-60	-110	-170	-170	-130	-220	-190	-170	-100	-90	-80
28.	250	190	190	200	250	150	40	80	140	110	[80]	160	150
29.	170	100	110	90	170	150	160	230	230	[190]	[160]	200	170
30.	-90	-100	-110	-90	-140	-50	+S	+S	-200	+S	+S	+S	-220
31.	30	-90	-150	-90	120	50	0	50	—	[130]	60	0	-50
Means	49	46	55	43	52	51	50	55	52	59	50	65	50
Number of days	30	30	31	30	31	31	30	29	26	27	29	30	31

13	14	15	16	17	18	19	20	21	22	23	Daily means
140	110	100	150	190	190	200	100	40	120	10	144
110	70	10	-20	20	10	20	-10	-20	0	-40	48
-10	20	30	60	60	100	100	110	100	120	100	-5
30	10	30	+S	100	30	30	40	+S	+S	+S	—
120	40	60	40	60	80	10	10	-110	-80	-80	—
-40	60	150	+S	+S	70	130	30	0	30	60	—
20	10	-40	-10	-10	0	20	30	20	80	50	24
20	20	130	30	20	50	80	50	40	100	70	18
180	170	150	130	140	+S	—	70	0	-70	10	—
170	70	120	120	140	170	+S	160	190	90	110	—
150	110	150	100	90	150	160	140	200	250	240	120
0	-10	-10	0	10	20	60	20	30	10	20	49
130	150	160	130	130	140	70	80	130	70	40	90
140	140	140	160	160	180	160	120	100	70	70	89
140	130	160	150	160	160	140	110	90	110	120	126
89	90	130	130	130	150	130	90	60	40	60	93
80	30	20	10	20	30	30	170	150	130	40	—
30	40	20	20	20	10	-20	-30	10	10	30	13
80	90	40	-20	-60	-80	-10	-60	-60	-50	-10	-1
-30	-40	-20	10	30	-10	40	50	100	80	50	11
140	170	100	120	130	190	160	110	110	150	130	75
200	200	170	170	120	10	60	110	120	100	-70	—
130	210	220	+S	190	+S	+S	+S	+S	+S	+S	—
30	30	-10	0	30	60	30	-10	0	20	0	55
20	60	90	100	80	160	180	180	210	160	150	44
140	160	170	80	60	90	90	70	70	-60	-90	99
-30	0	-30	80	120	120	210	170	200	180	250	-15
>190	40	130	+S	+S	+S	+S	+S	-S	-S	-S	—
10	-40	40	120	0	-100	+S	+S	-50	-100	-90	—
-130	-110	-30	30	80	10	20	110	110	30	60	—
10	40	+S	+S	+S	-190	-60	-170	-100	-260	-130	—
73	67	79	73	79	64	78	66	62	48	41	59
31	31	30	26	28	28	26	28	28	28	28	

February

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	-160	-90	-10	-160	-90	20	—	—	—	—	—	—	—
2.	—	—	—	—	—	—	—	—	—	—	—	—	—
3.	—	—	—	—	—	—	—	—	—	—	—	—	—
4.	—	—	—	—	—	—	—	—	—	—	—	—	—
5.	—	—	—	—	—	—	—	—	—	—	—	—	—
6.	—	—	—	—	—	—	—	—	—	—	—	—	—
7.	—	—	—	—	—	—	—	—	—	—	—	—	—
8.	140	+S	170	90	60	100	20	50	-70	150	120	110	90
9.	230	220	200	200	170	+S	+S	150	200	0	70	0	60
10.	80	100	200	170	+S	+S	+S	+S	+S	300	230	210	190
11.	60	80	70	10	20	40	20	30	+S	60	60	50	100
12.	-70	-30	-40	-10	20	60	60	80	10	90	60	0	150
13.	50	60	70	70	70	-20	0	40	50	10	30	20	20
14.	0	10	-10	-20	20	20	50	50	—	—	10	0	-30
15.	180	190	170	190	160	140	110	110	160	70	40	30	60
16.	90	80	90	120	120	130	130	150	140	120	110	90	120
17.	30	40	20	-30	-30	-20	-40	-30	-10	-60	-70	-20	40
18.	30	60	60	30	30	20	30	40	70	120	140	120	120
19.	50	60	50	80	60	30	50	40	70	120	120	110	110
20.	190	110	60	120	10	30	80	80	60	20	-20	0	30
21.	30	20	80	80	80	70	30	-10	—	—	50	50	-20
22.	80	90	100	60	130	120	30	50	50	-20	50	60	40
23.	60	40	40	40	50	50	40	50	150	100	80	70	90
24.	50	20	40	0	10	0	10	30	0	10	0	0	0
25.	60	50	20	10	10	40	50	20	20	10	0	0	0
26.	90	100	110	110	150	130	110	150	100	80	70	110	120
27.	110	120	110	40	70	50	50	50	70	70	60	—	—
28.	80	50	60	50	70	70	90	70	—	70	60	100	120
29.	20	10	0	70	110	130	140	110	90	160	60	90	100
Means	63	63	72	57	60	58	53	62	69	71	60	57	69
Number of days	23	22	23	23	22	21	20	21	18	20	23	22	22

13	14	15	16	17	18	19	20	21	22	23	Daily means
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
130	120	140	160	210	+S	+S	+S	+S	230	+1	—
0	100	120	—40	20	240	310	310	310	310	260	114
180	150	150	160	220	160	140	—10	140	160	120	—
—70	—120	—130	20	40	70	+S	+S	—20	—10	0	—
100	100	80	60	60	70	30	40	—10	—10	—20	45
210	150	140	130	140	150	140	100	90	90	60	76
20	10	10	20	—10	20	20	—70	—30	—10	0	19
—20	10	—100	—90	—80	—10	30	90	130	130	210	—
60	30	40	60	60	60	70	80	70	90	100	97
120	110	110	90	30	20	20	10	60	40	20	88
30	100	100	110	120	60	70	10	10	20	20	20
120	90	80	80	50	40	40	60	20	60	60	65
130	100	100	110	100	130	160	150	170	160	—	98
110	40	60	40	—20	20	110	110	40	40	70	58
60	110	60	70	20	70	120	30	40	30	50	—
80	90	50	70	30	40	90	40	210	70	40	69
60	20	30	50	90	70	70	80	60	50	80	63
20	50	60	50	50	60	50	80	60	60	70	31
20	10	—10	20	40	30	30	60	90	70	50	29
110	80	50	80	80	120	150	150	110	100	140	108
140	180	180	160	150	150	150	140	110	100	90	106
110	110	70	90	110	110	160	110	50	80	0	82
130	110	60	70	100	120	130	70	80	60	30	85
80	76	63	69	70	82	100	78	81	83	69	69
23	23	23	23	23	22	21	21	22	23	21	

March

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	40	70	30	40	120	0	30	50	[70]	40	30	20	30
2.	10	-10	-20	-50	-10	0	-50	-30	20	50	70	100	70
3.	20	40	60	40	0	-40	-60	10	10	[50]	80	90	100
4.	100	90	70	70	60	60	20	20	[60]	50	50	30	40
5.	-30	-20	-20	-20	-20	-20	-20	-30	-50	-20	-10	[10]	20
6.	10	40	70	70	50	30	30	20	—	0	80	80	90
7.	20	20	20	10	10	10	20	30	—	20	40	20	70
8.	-20	-20	-10	-10	0	0	-10	40	[50]	100	120	100	70
9.	80	40	30	30	70	80	70	60	120	150	150	90	100
10.	50	30	70	60	80	120	70	20	30	80	100	110	120
11.	100	90	100	120	70	60	30	40	40	20	30	10	00
12.	+S	50	30	20	20	30	70	160	+S	170	+S	160	70
13.	70	90	60	70	0	0	0	40	—	[70]	110	130	130
14.	80	30	70	110	70	90	110	120	130	[140]	[180]	200	200
15.	90	100	100	90	110	110	130	200	200	230	[220]	220	240
16.	90	60	60	100	100	80	110	200	170	200	[200]	200	150
17.	110	90	80	80	80	80	100	120	[140]	[130]	160	170	160
18.	110	110	120	120	120	130	130	140	150	110	130	160	130
19.	60	40	40	50	50	50	60	50	70	80	90	80	80
20.	70	80	80	70	70	90	100	[120]	[150]	140	140	130	110
21.	90	70	90	100	130	120	140	160	160	170	190	150	160
22.	60	50	40	30	40	40	40	50	80	120	160	170	190
23.	10	0	-10	10	0	20	—	90	110	100	70	60	100
24.	80	80	80	40	40	50	70	70	50	20	-30	[-60]	-80
25.	90	30	20	40	30	80	100	[130]	[150]	140	150	150	160
26.	30	10	40	30	30	90	120	120	110	[100]	100	110	100
27.	60	40	40	30	30	0	-140	60	—	—	-150	-100	0
28.	0	0	-40	-30	-30	40	70	90	90	140	[110]	+S	+S
29.	50	40	30	30	10	60	50	[90]	[50]	60	100	80	70
30.	80	70	80	70	60	20	10	10	30	[70]	+S	110	140
31.	60	120	120	130	130	100	120	120	[100]	110	110	100	100
Means	56	49	49	50	49	51	51	76	88	95	96	96	97
Number of days	30	31	31	31	31	31	30	31	26	30	29	30	30

13	14	15	16	17	18	19	20	21	22	23	Daily means
20	30	10	20	40	20	40	20	20	20	0	34
40	70	40	50	10	0	20	30	30	10	30	20
110	120	160	100	80	50	50	60	70	80	60	56
0	-40	-30	10	0	-10	-10	-20	-10	0	-40	24
60	60	40	40	70	70	20	20	40	40	60	12
70	80	80	70	60	60	40	60	20	20	30	50
80	80	70	70	90	80	70	30	30	30	0	40
100	110	80	110	120	180	140	150	130	90	50	70
100	120	140	100	100	100	100	80	50	130	120	92
130	150	130	170	130	90	70	110	120	130	120	95
-20	±S	30	-80	-190	-50	20	20	100	100	±S	—
160	100	110	110	110	50	80	120	120	110	90	—
130	130	120	110	110	100	70	30	80	80	80	79
230	230	200	200	240	250	270	220	170	140	100	158
200	170	150	130	150	130	140	130	130	110	90	149
130	120	120	100	140	170	130	130	130	100	100	129
170	180	190	160	180	220	250	220	150	150	130	146
120	100	90	90	110	120	100	100	70	80	70	113
100	100	110	100	110	110	100	100	90	80	70	78
110	110	110	110	100	140	150	140	110	100	100	110
150	180	190	170	120	140	130	110	80	70	50	130
200	230	200	180	130	120	110	90	70	40	20	103
50	120	130	130	90	90	80	80	80	100	100	70
-30	30	40	180	250	230	170	130	140	120	100	74
170	170	150	100	100	120	80	50	10	-60	-10	90
90	100	90	90	90	100	80	80	80	70	70	80
-30	-60	-90	-40	-90	10	0	10	20	10	0	—
±S	±S	±S	±S	±S	±S	±S	±S	50	40	70	—
80	70	70	60	20	10	±S	±S	±S	90	90	—
130	100	100	90	90	90	80	20	80	100	100	75
100	90	40	50	70	100	110	110	80	20	-S	95
98	105	96	93	88	96	93	84	78	71	69	78
30	29	30	30	30	30	29	29	30	31	29	

April

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12	
1.	-S	±S	±S	50	50	70	100	60	60	70	--40	70	80	
2.	210	170	150	140	130	130	150	170	170	—	80	100	80	
3.	—	—	—	—	—	—	—	—	—	—	—	70	60	
4.	+S	+S	90	120	160	120	100	150	140	100	80	60	0	
5.	-10	20	10	-10	-10	20	60	100	—	80	0	40	100	
6.	180	160	150	150	130	130	150	170	170	130	130	150	150	
7.	50	60	50	50	60	70	80	70	70	100	110	110	100	
8.	80	80	80	90	80	80	100	110	120	170	160	120	100	
9.	20	10	0	-10	20	40	40	30	30	50	90	100	90	100
10.	80	60	60	70	70	80	80	110	—	—	50	50	50	
11.	30	50	50	40	30	50	70	90	90	60	90	130	100	
12.	50	70	70	50	40	30	30	30	20	10	30	50	50	
13.	-20	-20	-20	-10	10	10	-S	+S	20	30	+S	20	-20	
14.	150	120	100	50	50	50	70	90	110	90	40	60	60	
15.	10	20	+S	10	120	160	180	190	170	140	80	30	30	
16.	80	80	80	50	40	0	30	60	+S	80	+S	+S	120	
17.	90	+S	150	110	120	100	90	130	—	130	130	130	160	
18.	50	50	60	70	50	—	—	—	—	—	—	—	—	
19.	—	—	—	—	—	—	—	—	—	80	100	80	60	
20.	50	30	30	30	30	50	50	50	70	120	110	120	130	
21.	30	50	50	80	130	190	240	240	200	140	120	120	130	
22.	50	110	-30	10	10	60	+S	+S	60	20	70	-10	-30	
23.	30	40	40	40	20	30	40	40	20	-300	-100	+S	100	
24.	70	60	50	50	60	70	120	130	—	—	90	70	80	
25.	10	10	30	40	20	50	60	90	70	60	70	70	90	
26.	100	90	90	90	90	100	120	150	160	130	130	120	150	
27.	50	40	40	50	70	90	110	140	120	120	110	80	60	
28.	100	70	60	90	130	130	140	120	110	80	+S	60	+S	
29.	70	60	70	60	70	80	110	100	100	90	70	70	70	
30.	40	40	30	30	50	50	70	70	80	80	60	70	70	
Means	63	61	59	57	65	76	96	108	99	76	75	76	80	
Number of days	26	25	26	28	28	27	25	25	22	25	25	28	28	

13	14	15	16	17	18	19	20	21	22	23	Daily means
0	70	80	90	70	—	—	—	—	250	240	—
80	60	60	40	10	-60	-100	50	150	140	170	99
20	+S	±S	+S	-30	-30	-20	-20	±S	-40	-30	—
30	20	20	10	10	-10	-10	10	50	50	10	—
170	160	—	—	—	—	—	—	—	—	—	—
170	150	90	80	80	80	70	80	80	110	100	127
100	100	100	90	90	100	100	100	90	90	90	85
70	70	80	40	10	50	60	60	60	40	30	81
100	100	110	130	100	100	110	100	90	80	60	69
50	50	60	50	50	40	10	10	0	-10	0	—
100	110	110	110	110	110	110	100	100	50	0	79
60	40	70	60	0	30	20	20	20	40	10	38
20	-20	90	70	70	120	60	-30	60	+S	+S	—
-10	50	90	90	80	70	90	100	80	70	-60	70
40	30	110	90	50	80	80	100	130	130	100	90
130	150	140	100	110	±S	130	130	+S	50	130	—
170	150	130	120	140	100	120	100	90	60	40	—
—	—	—	—	—	—	—	—	—	—	—	—
80	60	100	160	130	150	190	130	130	130	110	—
110	-220	-140	-60	120	110	100	50	-10	20	30	41
170	110	+S	-60	±S	+S	-20	50	140	+S	+S	—
-20	-S	-10	20	20	40	50	50	40	30	30	—
100	100	90	50	70	90	80	80	90	80	80	40
80	30	+S	50	30	40	0	10	30	80	50	—
80	90	70	80	80	100	110	100	90	80	90	68
150	150	150	160	150	110	110	80	60	50	40	114
70	100	120	110	130	70	120	120	100	70	60	90
70	110	80	+S	80	120	80	70	70	80	80	—
70	70	80	70	80	80	80	60	50	50	30	73
70	80	80	70	60	70	70	70	50	40	40	60
80	73	78	70	70	70	67	66	74	70	59	74
29	27	25	26	27	25	27	27	25	26	26	

May

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	40	60	60	60	50	80	80	60	80	100	70	50	60
2.	70	60	70	60	70	100	110	120	—	130	90	90	100
3.	50	40	40	20	—160	—130	0	80	90	70	—20	30	40
4.	190	140	110	90	90	90	110	60	130	140	140	50	10
5.	40	30	30	50	40	40	80	70	70	70	60	50	50
6.	20	50	40	40	90	30	90	70	90	120	60	60	60
7.	60	60	50	50	40	40	40	30	—40	40	60	70	70
8.	70	50	50	50	40	40	60	50	—	—	80	90	30
9.	70	50	30	20	10	40	+S	120	120	110	120	120	—S
10.	40	50	40	20	20	40	60	60	70	70	80	80	80
11.	250	220	160	120	130	120	140	110	30	0	10	0	30
12.	30	30	40	40	40	40	60	60	50	70	60	60	60
13.	—30	—20	—20	—20	+S	—10	30	—30	—20	—30	20	—20	10
14.	—40	—50	—70	—40	30	20	—10	+S	+S	+S	0	0	10
15.	40	40	40	60	40	50	60	30	—	80	60	60	80
16.	+S	+S	—S	+S	+S	+S	20	140	90	80	30	+S	0
17.	30	40	60	40	50	40	170	120	100	80	60	50	40
18.	40	40	30	30	40	80	80	70	60	70	70	60	50
19.	90	40	30	+S	+S	+S	130	100	130	90	50	20	0
20.	+S	+S	+S	80	90	60	50	40	50	60	—	—	—
21.	—	—	—	—	—	—	—	—	—	—	—	—	—
22.	—	—	—	—	—	—	—	—	—	—	—	—	—
23.	—	—	—	—	—	—	—	—	—	—	—	—	—
24.	—	—	—	—	—	—	—	—	—	—	—	—	—
25.	—	—	—	—	—	—	—	—	—	—	—	50	50
26.	30	30	20	30	30	40	60	70	60	70	60	50	+S
27.	50	40	30	20	30	30	40	50	30	40	+S	+S	+S
28.	50	30	30	40	50	50	60	50	50	40	20	20	0
29.	50	50	50	40	40	40	60	80	—	—	50	50	80
30.	50	50	50	50	50	50	50	50	50	50	50	40	50
31.	30	40	40	40	50	90	90	80	—30	—10	0	20	50
Means	55	49	42	41	42	45	69	70	60	67	53	48	44
Number of days	24	24	24	24	23	24	25	25	21	23	24	24	23

13	14	15	16	17	18	19	20	21	22	23	Daily means
60	70	70	70	70	60	60	60	60	60	70	65
110	90	80	70	80	60	70	70	60	50	50	81
70	+S	60	50	60	70	80	220	260	230	230	64
20	20	20	20	40	30	30	60	50	50	30	72
50	50	60	50	50	40	40	50	50	50	40	50
70	70	80	-S	±S	+S	-S	120	70	60	50	—
80	50	170	0	+S	+S	—	40	60	50	50	—
±S	±S	±S	±S	40	50	60	40	30	20	50	—
+S	+S	-S	130	70	80	60	30	40	50	40	—
80	90	40	-S	60	50	+S	+S	±S	+S	260	—
30	30	30	40	40	40	40	30	30	30	30	70
70	80	90	50	20	20	30	10	0	-10	±S	43
50	30	30	-10	-10	-50	-40	20	0	-40	-50	-13
30	50	50	50	40	30	20	20	20	50	20	—
70	90	110	110	80	60	140	-60	-20	70	100	56
-20	-30	+S	30	30	0	70	20	-30	40	30	—
40	50	40	40	40	40	50	40	40	40	40	56
60	40	30	30	-80	0	40	50	80	80	130	49
110	+S	±S	-S	30	30	-70	20	40	30	40	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
+S	+S	60	60	50	50	50	40	30	40	30	—
50	40	50	50	40	+S	—	40	30	50	100	—
±S	±S	±S	±S	±S	±S	±S	±S	±S	±S	±S	—
10	30	±S	±S	0	70	70	70	60	60	60	—
60	70	50	70	70	70	80	50	90	50	30	—
50	40	50	50	50	+S	±S	±S	±S	±S	±S	—
20	-80	-120	-20	60	0	60	60	-S	±S	-S	—
53	44	53	47	40	38	37	48	48	50	65	50
22	20	20	20	23	21	20	23	22	22	22	

June

Hour GMT													
Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	$\pm S$	$+S$	$-S$	$+S$	$-S$	$\pm S$	$\pm S$	0	90	110	50	40	60
2.	60	60	60	80	70	100	70	70	70	70	60	60	80
3.	$+S$	-10	30	30	—	—	—	—	—	—	—	—	90
4.	40	50	50	40	50	50	50	50	50	50	50	50	50
5.	—	—	—	—	—	—	—	—	—	—	—	—	—
6.	—	—	—	—	—	—	—	—	—	—	—	—	—
7.	—	—	—	—	—	—	—	—	—	—	—	—	—
8.	—	—	—	—	—	—	—	—	—	—	—	—	—
9.	—	—	—	—	—	—	—	—	—	—	—	—	—
10.	—	—	—	—	—	—	—	—	—	—	—	—	—
11.	—	—	—	—	—	—	—	—	—	—	—	—	—
12.	—	—	—	—	—	—	—	—	—	—	—	—	—
13.	—	—	—	—	—	—	—	—	—	—	—	—	—
14.	—	—	—	—	—	—	—	—	—	—	—	—	—
15.	—	—	—	—	—	—	—	—	—	—	—	—	—
16.	—	—	—	—	—	—	—	—	—	—	—	—	—
17.	—	—	—	—	—	—	—	—	—	—	—	—	—
18.	—	—	—	—	—	—	—	—	—	—	—	—	—
19.	—	—	—	—	—	—	—	—	—	—	—	—	—
20.	—	—	—	—	—	—	—	—	—	—	—	—	—
21.	—	—	—	—	—	—	—	—	—	—	—	—	—
22.	—	—	—	—	—	—	—	—	—	—	—	—	—
23.	—	—	—	—	—	—	—	—	—	—	110	40	30
24.	—	—	—	—	—	—	—	—	—	—	—	—	—
25.	—	—	—	—	—	—	—	—	—	—	—	—	—
26.	40	50	40	40	40	70	90	60	—	—	—	80	70
27.	30	30	40	30	30	30	50	40	60	90	100	80	80
28.	50	30	60	100	100	100	120	130	120	110	100	90	80
29.	100	90	90	80	80	80	70	80	100	80	100	100	100
30.	20	30	30	30	30	30	30	20	—	—	—	—	—
Means	49	41	50	54	57	66	69	56	82	85	81	68	71
Number													
of days	7	8	8	8	7	7	7	8	6	6	7	8	9

July

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	—	60	60	60	90	80	80	100	70	60	90	90	100
2.	100	80	70	40	50	50	50	100	100	100	100	100	100
3.	70	—	50	—	—	50	—	—	—	70	70	70	70
4.	60	—80	40	70	—	30	30	40	90	70	70	70	90
5.	30	30	30	40	50	80	70	70	80	60	50	60	70
6.	20	40	30	20	60	60	50	50	40	60	40	30	20
7.	20	20	10	10	0	—	—	—	—	—	—	—	—
8.	—	—	—	—	—	—	—	—	—	—	—	—	—
9.	—	—	—	—	—	—	—	—	—	—	—	—	—
10.	—	—	—	—	—	—	—	—	—	—	—	—	—
11.	±S	±S	—S	70	70	—20	—50	60	130	—	—	—	—
12.	—	—	—	—	—	—	—	—	—	—	—	60	30
13.	60	70	30	30	50	50	50	40	40	20	30	—10	+S
14.	—120	±S	±S	—60	—50	—80	—120	—120	—60	—S	±S	+S	+S
15.	10	—S	±S	±S	—S	—100	±S	±S	+S	150	150	100	80
16.	±S	±S	±S	±S	30	90	120	130	100	30	70	60	60
17.	40	30	30	30	50	80	100	100	—	—	100	+S	+S
18.	20	20	10	10	30	80	110	110	100	80	100	100	130
19.	50	80	80	70	—	—	—	—	—	—	—	130	130
20.	80	80	100	±S	±S	—S	—	—	—	120	110	100	90
21.	50	40	40	30	30	60	70	80	100	120	100	80	80
22.	30	20	30	30	30	30	60	80	80	80	80	100	80
23.	30	30	30	30	30	0	60	40	40	40	60	50	60
24.	50	50	50	40	40	60	50	60	—	—	90	100	100
25.	40	30	40	50	70	90	50	60	70	90	90	60	±S
26.	±S	0	20	20	0	20	30	130	100	90	50	120	190
27.	60	50	50	50	60	60	60	80	70	90	80	70	90
28.	80	70	60	60	60	50	—	—	—	—	—	—	—
29.	30	30	50	10	30	30	40	50	100	+S	20	60	80
30.	40	40	50	30	30	20	70	70	90	60	50	50	50
31.	40	50	40	30	40	+S	±S	±S	±S	—	—	110	70
Means	39	38	43	33	39	38	49	67	74	80	76	77	84
Number of days	23	22	23	23	22	23	20	20	18	18	21	23	21

13	14	15	16	17	18	19	20	21	22	23	Daily means
80	80	70	80	100	120	110	110	120	110	110	88
100	100	90	100	100	100	100	100	100	100	80	88
70	70	80	90	60	50	90	80	90	70	60	—
70	150	90	100	80	70	60	50	70	70	60	63
70	70	70	70	70	70	70	50	30	40	20	56
10	10	10	20	0	20	20	0	10	20	20	28
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	±S	±S	±S	+S	70	90	±S	±S	±S	±S	—
—	—	—	—	—	—	—	—	—	—	—	—
70	110	70	70	70	70	40	20	30	30	30	—
+S	±S	±S	±S	±S	±S	—S	±S	±S	±S	0	—
+S	130	—120	—100	—110	—120	—120	—70	—40	—30	0	—
+S	+S	±S	±S	±S	±S	±S	20	50	—40	—40	—
60	70	90	70	±S	±S	70	60	±S	—50	50	—
60	80	100	130	170	100	80	80	—S	±S	±S	—
—140	—S	—	—	—	40	20	0	0	30	30	—
130	100	+S	+S	—	130	130	80	90	80	70	—
—S	+S	+S	80	50	50	40	50	50	50	40	—
80	70	80	100	80	50	80	80	60	50	30	68
80	+S	+S	80	0	+S	±S	30	60	—S	+S	—
60	70	80	80	80	80	60	60	50	50	60	51
30	—110	—S	+S	140	60	60	40	60	80	50	—
±S	±S	+S	±S	±S	40	10	—40	—30	0	+S	—
90	20	30	30	30	40	50	50	70	70	80	58
90	100	100	90	—	—	90	90	90	90	80	—
—	—	—	—	—	100	80	90	70	60	30	—
50	—S	±S	+S	60	80	70	60	60	60	50	—
60	60	60	60	60	60	50	50	50	50	40	52
70	60	50	60	60	70	60	50	40	40	30	—
60	54	59	67	61	61	59	47	51	45	43	55
20	18	16	18	18	22	24	25	23	23	23	

August

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	40	30	30	30	40	60	40	50	60	160	60	+S	±S
2.	60	100	110	80	70	90	80	50	70	60	60	40	30
3.	70	70	—S	±S	—10	30	40	30	—170	—40	70	100	20
4.	40	40	30	30	30	30	40	30	30	±S	±S	100	90
5.	30	30	40	40	50	50	100	100	90	90	90	80	80
6.	40	30	30	30	30	30	50	60	50	70	90	90	70
7.	50	30	20	20	20	30	40	50	0	80	80	90	100
8.	40	40	40	40	50	80	80	70	70	70	70	40	50
9.	70	90	+S	200	170	140	110	100	100	110	100	100	100
10.	40	30	30	40	40	70	160	80	60	70	80	90	90
11.	30	30	40	40	40	40	50	40	50	50	40	40	50
12.	40	50	60	70	80	80	90	120	200	150	150	120	130
13.	30	30	60	50	60	50	80	80	50	50	40	40	50
14.	50	60	60	50	90	100	100	60	—	50	50	50	50
15.	30	50	40	30	20	10	20	40	50	50	50	40	40
16.	50	80	120	60	50	50	50	70	80	110	90	100	110
17.	±S	+S	—20	20	90	80	—	—	—	—	—	—	—
18.	100	70	60	70	60	80	80	80	70	50	50	50	50
19.	50	50	70	60	60	60	50	50	10	40	—10	10	30
20.	60	80	70	50	60	70	90	130	100	70	60	40	60
21.	70	20	50	50	40	+S	20	50	60	40	—	70	70
22.	40	50	60	70	60	100	110	100	80	30	110	70	120
23.	70	50	50	50	60	60	60	100	110	100	100	120	170
24.	60	80	60	70	60	50	120	100	100	150	160	150	150
25.	70	70	70	70	70	70	100	110	100	100	100	90	90
26.	30	30	60	100	140	150	120	110	140	120	110	100	110
27.	60	50	40	40	50	40	60	50	50	50	60	50	70
28.	40	50	30	30	20	30	0	30	—	40	40	60	10
29.	40	20	40	40	30	50	140	160	180	150	110	80	50
30.	150	110	100	110	120	120	—10	110	—	—	160	180	150
31.	80	80	70	70	70	110	160	140	170	160	150	150	150
Means	54	53	52	57	59	67	74	78	73	80	83	81	81
Number of days	30	30	29	30	31	30	30	30	27	28	28	29	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
±S	170	100	80	70	90	80	70	70	80	60	—
50	50	40	50	40	60	±S	—S	±S	170	90	—
70	70	80	70	50	60	60	50	40	50	50	—
30	60	70	80	110	90	70	60	50	40	30	—
90	70	50	50	40	40	30	30	30	40	40	58
80	70	100	70	70	50	60	50	80	80	70	60
90	80	80	70	50	50	50	40	40	40	40	52
40	50	30	30	30	30	30	40	60	90	90	53
80	70	60	50	50	50	60	40	40	40	30	85
60	70	60	50	50	60	60	60	70	50	40	63
60	60	50	50	40	50	40	—S	—S	40	40	—
130	110	110	100	90	100	100	100	90	50	50	99
50	50	50	40	—100	30	60	70	70	80	50	47
40	40	50	50	50	50	50	50	50	50	30	56
40	50	50	50	40	50	50	30	30	10	50	38
110	110	70	+S	±S	±S	±S	±S	±S	±S	±S	—
90	100	90	90	90	130	120	100	100	100	100	—
50	50	40	80	50	60	60	30	50	50	50	60
30	—60	—30	—100	—70	—60	—50	—20	—50	10	30	7
50	80	—90	—S	—150	—150	—10	—10	0	50	100	35
90	50	50	60	70	50	50	90	50	60	60	—
100	70	90	60	90	130	150	100	100	90	80	86
170	160	130	110	130	110	70	100	100	80	80	98
169	170	180	150	150	140	100	60	50	50	80	103
90	100	120	100	120	100	100	130	90	10	30	88
80	110	120	110	110	100	110	100	110	100	80	102
80	60	50	50	30	40	50	40	50	30	40	50
+S	30	50	50	60	50	90	80	40	50	30	41
120	140	150	120	110	140	140	190	160	150	150	111
150	140	110	140	200	260	240	200	160	120	70	—
130	120	120	150	150	180	190	150	150	150	140	133
83	81	72	71	61	71	77	73	67	67	63	70
29	31	31	29	30	30	29	28	28	30	30	

September

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	80	70	90	90	80	100	140	160	160	170	160	160	140
2.	30	10	0	20	20	50	60	90	110	130	150	140	120
3.	90	80	70	90	90	90	150	110	100	80	90	50	60
4.	60	50	50	50	60	70	110	120	—	60	60	60	60
5.	30	30	30	30	30	30	100	80	50	50	50	60	50
6.	50	50	40	30	30	30	10	20	40	60	60	60	60
7.	40	60	60	70	50	40	50	60	90	80	60	60	60
8.	60	60	50	110	170	180	110	110	100	130	100	80	100
9.	100	100	100	130	110	100	210	150	150	100	120	90	70
10.	70	100	60	60	50	60	20	40	-210	±S	-S	60	60
11.	±S	20	30	50	70	80	80	80	—	—	80	90	80
12.	50	40	50	50	50	60	60	70	80	110	120	100	90
13.	50	50	50	50	40	50	80	70	90	120	130	100	90
14.	30	20	30	30	40	30	50	50	80	90	90	100	80
15.	50	50	60	60	60	70	150	120	120	130	120	90	110
16.	-160	-70	40	60	80	100	120	70	210	140	150	80	150
17.	0	20	10	10	0	0	10	30	50	70	60	50	50
18.	60	60	50	50	40	-20	-80	±S	-S	±S	±S	50	50
19.	40	40	40	30	30	50	70	60	70	50	60	50	10
20.	50	50	70	60	110	170	220	240	110	—	110	100	80
21.	60	50	40	50	50	50	80	100	80	90	90	120	±S
22.	50	40	50	50	50	70	80	130	120	130	120	110	110
23.	40	20	40	50	10	±S	20	-50	10	20	80	90	90
24.	30	30	30	±S	±S	±S	±S	60	70	80	80	90	±S
25.	50	50	50	50	50	60	70	90	—	110	110	80	70
26.	30	20	30	30	40	50	100	120	100	120	120	110	120
27.	50	50	50	40	40	50	80	90	100	90	90	100	110
28.	120	100	60	40	40	50	50	50	50	±S	60	40	40
29.	±S	±S	20	20	30	50	110	120	130	100	60	50	50
30.	90	90	50	60	60	60	—	100	90	60	80	80	100
Means	46	46	47	52	56	64	83	88	83	95	95	83	81
Number of days	28	29	30	29	28	28	28	29	26	25	28	30	28

13	14	15	16	17	18	19	20	21	22	23	Daily means
150	140	170	190	180	220	150	110	90	100	50	131
100	110	120	70	70	80	60	70	60	60	70	75
50	50	50	60	60	50	50	50	50	60	70	73
80	90	80	60	60	50	50	50	50	40	40	63
50	50	50	50	50	50	60	70	70	60	40	51
60	50	50	60	90	90	60	60	50	40	40	50
60	60	50	40	50	40	40	50	40	30	40	53
[110]	90	90	100	70	90	70	70	90	60	60	94
30	50	130	100	110	120	150	150	20	40	40	103
70	60	50	60	50	80	70	40	-10	30	±S	—
70	70	80	80	70	80	80	70	70	70	50	—
100	80	80	70	50	70	80	90	80	60	50	73
90	120	90	80	50	50	50	50	50	40	40	70
70	60	50	50	100	100	70	60	80	80	70	63
110	110	-80	+S	10	30	+S	+S	-S	-S	-S	—
110	70	80	30	70	0	+S	+S	±S	80	40	—
50	50	50	50	50	50	50	50	60	60	50	39
60	60	50	60	80	70	50	50	40	40	50	—
50	40	30	50	110	80	100	50	60	80	80	55
90	80	70	60	70	60	80	80	70	50	50	93
±S	-S	±S	50	±S	+S	70	70	60	50	50	—
100	100	90	60	70	80	90	60	60	60	50	80
80	80	50	50	50	50	±S	30	20	70	50	43
120	120	50	±S	+S	60	+S	+S	40	50	50	—
80	80	60	60	70	60	50	60	50	40	30	64
120	120	130	130	120	130	120	110	90	60	60	91
120	140	100	80	50	70	80	130	120	130	120	87
50	30	50	30	30	0	30	70	60	40	±S	50
40	50	50	50	70	70	90	30	40	50	40	—
100	90	70	70	50	50	90	50	50	40	50	71
82	79	69	68	70	70	75	68	58	58	53	70
29	29	29	28	28	29	26	27	28	29	27	

October

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	20	20	-50	-10	-10	10	-30	-40	0	[-50]	[-30]	-30	-20
2.	-110	120	50	20	10	30	50	110	—	120	120	100	100
3.	110	120	120	100	150	120	140	130	100	50	100	90	100
4.	70	50	60	50	40	40	50	70	70	90	60	50	50
5.	80	70	70	70	70	80	80	80	90	90	90	80	90
6.	140	120	90	70	80	110	110	110	120	150	170	[200]	220
7.	90	80	70	—	—	—	—	—	—	60	80	70	60
8.	60	70	80	70	80	80	100	60	120	70	60	50	50
9.	±S	±S	±S	-S	±S	20	30	110	90	30	20	80	110
10.	110	110	50	50	60	60	130	150	140	150	100	70	70
11.	50	60	50	20	60	90	80	80	50	60	70	90	90
12.	80	90	140	200	140	130	+S	180	150	120	[200]	140	150
13.	100	50	50	140	140	160	210	+S	150	140	[130]	140	150
14.	80	50	90	120	150	170	170	170	240	230	180	150	150
15.	90	80	80	60	70	90	130	130	140	160	160	160	150
16.	80	80	70	70	70	70	80	100	[110]	—	—	110	90
17.	120	110	90	60	60	70	90	130	120	120	110	130	150
18.	80	80	90	70	70	120	130	200	—	120	100	70	50
19.	70	70	80	80	80	110	150	170	170	150	[110]	100	110
20.	50	50	60	60	70	70	70	80	80	90	[80]	80	100
21.	170	-50	-20	50	30	20	-20	-50	100	80	40	50	60
22.	60	50	50	-20	50	+S	+S	80	120	150	110	110	120
23.	±S	±S	±S	±S	±S	±S	±S	+S	—	100	140	120	100
24.	0	30	50	50	80	50	60	60	90	40	80	60	150
25.	50	50	50	40	30	40	[50]	—	[90]	70	120	140	100
26.	70	80	230	+S	+S	160	+S	+S	+S	50	50	90	110
27.	60	60	70	70	70	80	100	70	50	50	30	40	20
28.	40	0	20	30	40	10	50	50	[50]	60	80	70	70
29.	80	50	50	50	40	50	[50]	[60]	90	80	80	60	70
30.	20	20	20	30	30	20	50	60	—	60	70	90	120
31.	60	80	90	30	50	50	50	80	50	50	40	[30]	20
Means	68	64	67	60	67	75	83	93	103	91	92	90	95
Number of days	29	29	29	27	27	28	26	26	25	30	30	31	31

13	14	15	16	17	18	19	20	21	22	23	Daily means
20	30	0	20	20	10	-50	30	-20	±S	+S	—
80	70	50	50	40	90	120	90	100	90	80	69
90	70	60	40	120	130	130	150	100	100	80	104
50	50	130	150	120	110	100	110	110	100	100	78
80	90	120	110	140	140	150	130	110	110	130	98
230	180	130	100	110	120	130	110	100	120	100	130
90	70	70	70	100	150	80	80	70	50	60	—
30	+S	-S	-60	30	20	0	-80	-110	50	±S	—
100	120	150	100	120	150	110	60	40	50	120	—
70	80	80	90	80	90	90	70	100	90	60	90
110	100	110	80	120	90	60	50	70	70	100	75
200	170	170	110	100	140	120	140	110	110	110	139
190	180	190	180	150	150	150	130	90	100	100	138
150	130	140	130	160	160	150	150	150	170	150	150
130	110	100	80	140	120	120	130	120	100	110	115
100	80	80	90	70	90	90	90	110	130	130	—
200	210	200	160	150	150	130	130	130	100	90	125
-10	20	±S	±S	70	100	130	110	50	50	70	—
80	110	110	60	90	110	110	70	60	50	50	98
110	80	110	110	110	130	90	110	110	+S	+S	—
70	90	130	130	150	120	120	120	100	70	70	68
100	80	110	-S	-S	±S	+S	+S	-40	-80	+S	—
100	90	30	-90	-140	-80	+S	±S	0	30	10	—
100	150	110	100	50	40	50	50	50	50	50	67
90	90	90	90	50	110	130	120	100	80	80	81
100	110	110	90	90	110	110	100	80	100	60	—
40	60	50	60	80	70	30	20	20	50	30	53
90	180	130	120	140	130	110	110	110	110	110	80
60	50	50	50	30	0	50	50	50	30	40	53
100	120	140	110	90	60	50	50	50	50	70	64
50	50	50	50	0	50	30	10	-20	-30	-10	38
97	101	103	82	86	95	93	86	68	72	80	84
31	30	29	29	30	30	29	29	31	29	27	

November

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	-60	-40	-10	-20	-30	-40	10	120	170	160	150	[100]	120
2.	180	140	150	150	130	110	150	150	140	[140]	[140]	90	103
3.	80	70	90	100	90	100	80	120	90	130	120	130	150
4.	70	100	50	50	80	100	110	120	—	+S	+S	+S	140
5.	60	50	60	70	90	60	60	60	180	150	150	120	93
6.	110	90	50	60	80	60	50	90	90	120	—	100	90
7.	80	70	60	50	50	90	60	60	70	40	50	50	60
8.	130	150	120	60	150	+S	+S	+S	+S	+S	+S	[70]	160
9.	50	60	50	50	50	60	120	160	160	160	140	150	150
10.	220	+S	+S	+S	+S	+S	+S	+S	+S	+S	90	-10	-90
11.	-80	-50	40	70	110	110	140	180	160	130	60	-40	10
12.	10	60	70	90	80	110	140	150	130	[120]	[80]	80	110
13.	50	50	50	60	40	70	50	30	—	50	10	30	-100
14.	50	50	50	50	50	50	50	40	+S	+S	[-80]	-40	40
15.	30	-10	90	50	+S	70	150	90	±S	±S	—	±S	±S
16.	70	50	60	50	60	70	70	80	120	[140]	110	90	100
17.	70	60	40	20	30	20	50	100	130	130	80	70	150
18.	50	40	40	30	50	50	50	130	[70]	20	+S	±S	±S
19.	90	70	90	100	90	120	140	150	150	[150]	150	140	90
20.	40	50	50	10	-40	0	10	[40]	—	—	30	-10	-120
21.	±S	+S	110	-280	110	190	+S	+S	+S	±S	110	150	190
22.	100	60	50	60	70	50	70	50	20	[140]	—	100	80
23.	120	80	50	-10	-90	50	140	70	60	70	120	110	-50
24.	70	100	150	140	110	90	120	140	150	[170]	150	150	150
25.	130	130	80	70	60	70	100	130	[140]	160	120	110	±S
26.	50	30	40	50	50	60	60	80	90	70	70	80	130
27.	200	150	120	150	150	150	180	170	210	—	—	210	163
28.	190	170	150	100	100	120	150	150	140	160	160	170	153
29.	150	150	120	120	170	160	210	160	+S	+S	230	140	123
30.	50	70	60	+S	80	150	180	200	+S	230	[220]	200	183
Means	81	71	73	54	70	82	100	112	124	126	107	94	87
Number of days	29	28	29	28	28	28	27	27	20	21	23	27	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
140	110	120	110	110	60	100	140	180	180	230	88
130	100	90	120	60	180	150	130	120	120	110	128
180	190	140	130	100	100	70	80	80	80	100	108
150	150	160	160	190	160	210	140	100	110	60	—
80	60	70	50	50	60	50	120	160	110	100	88
140	130	120	150	130	150	90	120	100	70	80	99
60	40	50	60	100	100	90	80	100	80	120	70
190	150	80	120	90	110	90	80	50	50	40	—
150	100	130	160	120	160	160	170	+S	180	130	123
0	-80	-90	-80	-150	-40	10	20	-40	-100	-130	—
-50	—	—	+S	-S	-S	50	-10	30	+S	40	—
100	60	140	120	150	110	110	130	90	80	70	100
-250	-40	40	+S	90	140	140	150	120	100	70	43
30	50	50	40	-20	40	10	30	-10	-10	0	—
+S	+S	+S	100	100	140	110	80	70	60	50	—
110	100	110	100	80	30	30	0	0	50	80	73
150	110	120	110	130	150	140	120	100	80	60	93
—	—	—	+S	+S	120	150	140	120	100	110	—
90	90	70	60	80	70	50	50	40	50	50	93
-100	-10	20	10	50	90	120	80	+S	+S	+S	—
200	+S	+S	+S	+S	+S	+S	110	+S	110	100	—
90	140	170	130	90	50	70	70	110	50	50	81
20	-30	50	50	80	80	150	120	80	80	110	63
150	110	+S	110	130	150	150	130	110	140	110	130
+S	110	120	130	150	170	150	140	120	110	80	—
140	120	140	160	140	150	150	150	170	180	+S	103
130	170	150	200	190	200	+S	+S	+S	+S	180	—
150	160	150	160	190	+S	+S	+S	200	210	140	—
120	150	150	150	130	150	110	150	120	80	60	—
200	120	70	-30	-70	40	30	50	70	100	80	—
93	91	97	99	92	108	101	99	92	91	81	93
27	26	25	26	27	27	27	28	26	27	28	

December

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	60	50	60	80	90	110	120	110	60	80	40	40	60
2.	+S	+S	+S	240	190	+S	80	50	130	50	60	20	20
3.	-210	-250	-180	-160	-130	-180	-150	-100	-90	-180	-100	-10	-10
4.	+S	+S	210	+S	+S	90	80	140	150	90	80	110	110
5.	70	+S	140	80	30	-60	30	—	—	130	100	140	100
6.	120	70	50	50	60	70	110	120	110	210	180	150	160
7.	90	50	60	70	30	40	60	80	60	10	40	-100	-100
8.	40	50	90	110	80	110	110	100	90	150	90	100	80
9.	-190	-150	-180	-100	-90	-40	70	-30	30	90	110	150	110
10.	120	100	80	80	100	90	80	120	210	170	140	110	110
11.	60	100	120	100	50	60	30	30	—	70	100	100	110
12.	+S	+S	-60	-10	-30	-40	-40	-30	-30	20	0	0	-30
13.	30	30	30	30	30	20	40	30	30	20	20	-10	70
14.	10	0	-10	0	30	30	-10	-10	-30	20	30	-50	0
15.	50	40	30	40	40	30	30	-30	-30	-50	-40	-30	50
16.	50	20	30	40	50	70	70	100	80	80	100	130	130
17.	30	-30	70	40	50	70	80	80	70	70	60	30	100
18.	100	120	140	100	120	130	150	130	—	40	80	150	120
19.	120	110	100	120	110	110	100	110	150	150	120	120	130
20.	100	120	120	110	100	90	90	80	80	100	120	110	120
21.	90	100	60	90	100	80	80	100	-50	-70	30	90	100
22.	-10	30	30	20	0	30	10	-10	-40	30	90	60	80
23.	80	60	0	-30	0	30	-40	-10	-10	10	80	30	-10
24.	-150	-110	-90	70	-10	0	-80	-80	-70	-30	60	40	190
25.	-150	-110	-110	-140	-70	-110	-90	0	-70	-110	-90	-90	-80
26.	-150	-110	-30	-140	-180	-110	40	-120	-150	-170	-110	-150	-110
27.	-110	-120	-90	-110	-120	-90	-90	-140	—	-120	-140	-120	-90
28.	-30	-90	-80	-50	10	-80	-70	20	-50	-80	-110	-90	-90
29.	60	—	30	50	50	30	-80	30	140	100	80	80	90
30.	100	100	100	70	80	80	100	140	110	110	130	140	150
31.	40	40	60	40	60	40	50	50	40	50	80	—	—
Means	15	8	26	30	28	23	31	35	34	34	44	42	56
Number of days	28	26	30	30	30	30	31	30	27	31	31	30	30

13	14	15	16	17	18	19	20	21	22	23	Daily means
70	60	+S	+S	+S	-120	50	180	240	210	+S	—
10	30	40	-40	30	-120	-70	-90	-70	-120	-150	—
70	100	120	110	100	130	190	250	230	+S	+S	—
130	130	150	140	140	160	150	150	150	160	+S	—
-30	40	70	80	110	130	160	200	190	140	150	—
130	110	130	120	180	110	100	100	100	60	40	110
10	-70	-120	-120	-210	-170	-100	-70	-10	80	70	-17
70	70	60	60	50	30	30	-10	-180	-190	-180	42
90	30	+S	+S	100	110	120	120	100	80	100	—
100	60	80	80	60	70	70	80	80	100	100	100
170	110	100	40	+S	110	+S	+S	+S	-30	+S	—
-10	20	40	30	20	30	30	40	60	30	40	—
20	30	30	20	30	30	-10	-10	30	10	0	—
30	100	140	100	70	60	50	80	60	60	40	33
70	30	20	50	30	50	30	-30	30	30	50	20
140	140	140	100	110	120	110	40	30	80	30	83
100	120	100	90	130	100	100	70	60	70	100	73
160	140	+S	150	150	70	40	100	120	110	100	115
110	130	140	110	120	120	110	100	70	40	30	110
120	130	110	130	100	100	90	110	60	100	90	103
100	120	110	70	90	40	20	10	30	20	0	59
90	90	100	80	40	50	80	40	0	80	80	44
20	10	30	-10	10	0	-50	-50	-40	-110	-180	-8
50	20	-70	20	-30	-90	0	-70	20	50	0	-15
-90	-40	-80	-110	0	-140	-80	-120	-180	-80	-110	-94
-90	-140	-120	10	-80	-110	-40	-50	-30	-50	-30	-93
-70	-150	20	50	40	30	-40	-30	-40	-90	-70	-73
-150	-140	-10	30	-50	-70	-40	-80	-30	-10	60	-53
90	130	130	180	190	120	120	130	120	100	90	90
170	170	160	160	160	100	110	120	90	70	70	116
—	—	—	—	—	—	—	—	—	—	—	—
56	53	60	62	60	35	46	45	44	34	20	38
30	30	27	28	28	30	29	29	29	29	26	

II. Hourly means of the quantities of positive and negative

Hour GMT		0	1	2	3	4	5	6	7	8	9	10	11
Month													
January	+	0	0	0	0	0	0	0	0	0	1	18	0
	-	0	0	0	0	0	0	0	0	0	3	9	0
February	+	0	0	0	0	6	0	0	0	0	0	0	0
	-	0	0	0	5	0	82	27	1	1	0	0	0
March	+	0	0	0	0	0	0	0	0	0	0	0	14
	-	0	0	0	0	0	0	0	0	0	0	0	13
April	+	8	2	0	0	0	0	0	0	12	0	8	0
	-	5	6	0	0	0	0	3	0	0	0	12	11
May	+	2	14	2	4	8	1	0	1	3	0	22	40
	-	1	11	4	1	5	1	0	0	4	5	109	36
June	+	45	26	56	0	29	66	48	1	0	0	0	0
	-	84	103	40	12	85	25	41	0	0	0	0	0
July	+	64	70	19	18	20	0	3	0	0	0	0	0
	-	135	91	25	17	33	0	1	0	0	0	0	0
August	+	21	0	6	0	0	0	0	0	0	8	10	0
	-	28	0	1	0	0	0	0	0	0	10	0	1
September	+	6	1	0	0	1	7	0	0	27	59	1	0
	-	38	0	0	0	35	10	0	0	35	50	0	0
October	+	1	15	2	19	12	22	0	0	0	0	0	0
	-	0	6	16	33	18	15	1	0	0	0	0	0
November	+	0	0	0	0	0	0	0	0	0	15	58	80
	-	0	0	0	0	0	0	0	0	5	9	2	33
December	+	0	0	0	0	0	0	0	0	0	0	0	0
	-	0	0	0	0	0	0	0	0	0	0	0	0

