

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”. Observatoriums-berichte des Geophysikalischen Forschungslaboratoriums der Ungarischen Akademie der Wissenschaften vom Jahre 1966, Sopron, 1967. Further informations are given by P. BENCZE and F. MÄRCZ: „The Geophysical Observatory near Nagycenk. II. Atmospheric electric and ionospheric measurements” Acta Geod. Geoph. Mont. Hung. 16/1981/353-357.

I.

1

Hourly means of the potential gradient

January													
Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	110	100	80	100	110	120	110	140	110	[110]	100	120	150
2.	160	120	100	80	80	70	70	80	100	90	[100]	170	100
3.	50	50	60	80	90	100	110	—	—	—	—	—	30
4.	—80	—100	—100	0	30	50	60	30	40	20	30	[110]	90
5.	50	60	50	60	50	60	60	50	40	60	[—60]	20	—70
6.	20	40	50	50	40	20	50	70	70	70	[70]	60	50
7.	50	90	70	60	50	70	70	90	70	120	[80]	+S	120
8.	80	70	70	80	80	110	50	60	70	70	[60]	70	130
9.	20	40	50	70	70	60	70	70	70	90	[120]	80	90
10.	60	60	50	30	30	50	60	—	—	50	50	60	50
11.	50	40	20	20	50	30	50	70	140	110	[90]	[90]	90
12.	70	80	20	100	100	130	140	110	110	150	[130]	150	180
13.	+S	+S	+S	+S	+S	+S	200	170	180	+S	[110]	100	130
14.	50	100	100	70	50	30	80	60	40	50	[60]	50	70
15.	—50	—50	—30	—20	—20	—40	—20	20	40	40	50	[40]	50
16.	+S	—20	+S	+S	+S	+S	+S	40	20	40	[+S]	50	80
17.	40	+S	+S	70	30	50	50	60	—	80	90	80	70
18.	70	80	60	80	90	80	70	90	120	150	[180]	170	200
19.	40	40	50	30	20	60	+S	50	60	80	[80]	80	90
20.	50	+S	+S	60	90	90	60	90	100	110	[100]	100	100
21.	90	90	80	70	50	50	80	70	0	80	[80]	70	70
22.	60	70	70	70	80	60	60	60	50	[70]	60	60	60
23.	60	60	70	80	70	70	80	100	100	90	[90]	100	100
24.	70	60	80	80	70	70	80	100	—	110	110	110	110
25.	50	50	40	60	70	90	110	150	+S	150	[100]	100	140
26.	150	140	150	120	+S	+S	+S	150	30	40	[—30]	20	80
27.	10	+S	50	+S	40	30	30	60	50	[50]	30	60	50
28.	30	30	30	30	10	10	30	40	50	50	[30]	+S	40
29.	40	30	40	40	40	60	70	100	0	0	[80]	[80]	80
30.	60	60	30	—10	—90	0	120	120	100	100	[80]	80	70
31.	30	40	40	50	50	60	70	—	—	70	70	80	80
Means	51	53	53	58	50	59	74	82	70	79	74	84	86
Number of days	29	27	27	28	28	28	28	28	25	29	29	28	31

13	14	15	16	17	18	19	20	21	22	23	Daily means
110	150	160	160	160	120	110	120	160	180	170	128
100	80	100	100	30	40	50	40	50	30	30	82
50	70	-40	0	-20	-S	-S	-S	-S	-30	-30	—
40	70	110	100	+S	110	120	150	70	±S	30	—
0	60	70	-S	-S	20	±S	-60	10	40	30	—
50	50	40	60	70	80	100	20	20	60	70	53
110	120	+S	30	20	40	50	70	60	70	80	72
170	+S	180	200	+S	+S	150	160	90	60	40	—
70	60	70	70	70	70	80	110	100	70	70	73
90	60	50	50	50	50	50	50	60	50	70	—
110	120	120	100	120	90	100	110	90	80	80	81
150	160	150	150	160	150	150	+S	+S	+S	+S	—
150	120	70	70	80	60	80	80	50	100	50	—
80	80	80	50	50	10	0	-20	-30	-10	-20	45
50	20	50	50	50	50	50	50	+S	±S	0	—
60	±S	50	50	50	50	±S	-20	-S	50	30	—
70	+S	90	110	100	110	-S	90	90	80	90	—
100	90	90	90	80	70	90	110	120	90	50	101
90	70	90	90	90	90	70	60	40	40	40	63
80	70	70	80	90	100	100	100	90	90	90	—
80	90	100	100	80	90	90	80	80	70	70	75
70	60	60	70	60	50	50	40	40	30	50	59
120	100	100	100	110	110	100	80	60	60	50	86
120	110	80	70	50	30	30	90	80	80	70	81
140	130	100	120	70	+S	110	+S	+S	150	170	—
110	70	30	30	10	-S	±S	-60	±S	-S	0	—
30	50	60	10	20	30	10	30	30	30	30	—
50	0	30	40	70	80	70	60	50	30	40	39
70	70	70	80	80	60	80	110	110	70	70	63
100	110	110	70	±S	±S	±S	±S	±S	70	±S	—
100	100	100	110	100	100	100	100	90	80	70	—
88	84	81	80	70	72	80	65	67	64	55	
31	28	30	30	27	26	25	27	24	27	29	

February

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	70	80	60	30	20	10	50	10	—90	30	100	120	[110]
2.	30	10	—S	0	50	40	30	50	70	80	[70]	—S	±S
3.	40	40	50	60	50	80	70	70	70	60	[50]	60	60
4.	±S	—S	—30	30	50	50	40	—	—	—	[80]	80	80
5.	40	60	60	70	90	80	70	80	80	90	90	[100]	[100]
6.	40	60	50	30	10	—10	—20	—50	—40	[—60]	—60	—50	±S
7.	100	50	10	20	10	30	50	[20]	—	110	140	150	160
8.	130	120	150	120	110	110	0	+S	—30	60	[60]	100	110
9.	0	0	50	70	60	±S	±S	±S	—S	±S	[+S]	+S	120
10.	—20	—110	±S	±S	±S	—50	—40	30	40	80	[70]	80	—
11.	—150	—80	—10	—30	10	30	0	0	30	50	[20]	—S	±S
12.	—	—	—	10	30	20	30	30	20	70	110	[130]	140
13.	50	60	40	40	30	0	10	20	40	80	[70]	80	90
14.	40	50	60	40	70	70	40	[20]	—	+S	+S	50	0
15.	—10	—50	—50	—10	—20	—10	—10	—20	—80	[—120]	—100	—100	—50
16.	20	30	30	50	70	70	90	110	130	140	[90]	80	110
17.	—40	—60	—50	—100	—80	—60	—50	30	50	[—20]	—30	20	0
18.	30	30	30	10	20	30	20	50	70	50	[50]	50	30
19.	60	30	40	40	40	—10	—110	—40	40	70	[80]	80	80
20.	30	30	10	0	20	50	20	+S	+S	30	[50]	[80]	100
21.	30	20	30	30	30	40	20	—	—	—S	60	90	100
22.	70	60	50	—50	10	40	80	100	110	140	[130]	120	120
23.	120	120	120	120	130	160	160	160	190	[180]	180	180	160
24.	90	90	50	70	80	70	80	100	140	[120]	150	130	160
25.	30	30	30	30	—10	—30	—30	10	100	[80]	150	150	140
26.	10	—10	30	0	—10	30	20	30	30	[30]	100	100	80
27.	90	40	60	90	110	70	60	40	—190	—50	[—40]	90	0
28.	60	100	90	70	100	100	110	+S	—	[190]	220	200	180
Means	37	31	38	31	40	37	29	39	37	62	73	87	91
Number of days	26	26	25	27	27	27	27	22	21	24	26	25	24

13	14	15	16	17	18	19	20	21	22	23	Daily means
110	100	90	60	30	30	50	80	90	100	120	61
50	±S	60	70	80	60	50	40	50	60	50	—
70	60	70	—S	—S	30	50	50	40	40	30	—
70	70	60	80	+S	—70	30	60	60	50	40	—
100	90	90	90	100	100	70	70	60	60	40	78
±S	±S	±S	±S	±S	50	+S	140	+S	150	60	—
130	120	140	140	120	50	140	200	180	230	140	106
130	170	130	100	80	80	—10	20	40	30	—10	78
10	—30	—70	—40	—90	—70	—20	—140	—150	—S	—S	—
160	180	150	110	±S	±S	±S	±S	±S	+S	—70	—
±S	—40	—80	±S	±S	±S	±S	±S	—60	—	—	—
120	110	110	100	120	160	90	50	120	90	70	—
110	130	130	130	120	90	80	110	120	80	100	75
30	160	110	80	30	90	20	—30	—80	—130	—60	—
0	40	60	30	30	50	40	—10	—50	—30	20	—19
130	150	110	150	130	60	30	—20	—40	—20	—90	67
—10	20	20	40	40	70	40	20	30	40	20	—2
40	60	50	30	40	50	40	60	80	80	70	45
100	100	100	120	100	60	20	0	10	20	20	44
100	90	70	30	30	50	90	70	30	20	20	—
100	80	90	60	70	90	50	50	60	40	60	—
90	90	100	100	120	120	150	150	110	130	120	94
170	150	160	160	180	200	190	130	100	110	90	151
200	200	170	160	70	110	90	70	0	10	20	101
160	160	130	110	100	70	10	10	—20	10	20	60
100	100	80	30	20	40	60	30	100	100	70	49
—30	—S	—S	+S	—S	—S	—S	—S	—S	—S	—50	—
210	160	30	—110	—120	100	170	200	160	170	120	—
94	101	83	76	64	67	64	56	42	60	40	
26	25	26	24	22	35	24	25	25	24	26	

March

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	120	200	100	100	100	170	150	150	140	180	160	[180]	160
2.	-80	-10	40	20	10	-70	-20	-60	-50	[-90]	-110	-70	50
3.	-10	10	-20	0	40	70	70	70	70	70	[70]	80	90
4.	90	100	100	100	100	100	100	100	100	110	[110]	120	110
5.	70	60	60	30	50	50	60	60	90	[90]	100	110	110
6.	80	70	60	70	60	80	80	60	90	80	[100]	100	100
7.	70	80	110	90	80	90	80	—	—	50	100	110	80
8.	50	40	30	30	60	50	30	40	70	[80]	80	70	70
9.	60	70	80	60	70	80	100	130	130	130	[130]	130	120
10.	50	50	40	50	50	70	60	70	60	50	[50]	60	70
11.	50	50	40	40	40	50	70	60	70	50	[70]	80	70
12.	60	50	50	40	40	20	80	+S	-20	100	[90]	100	90
13.	50	40	40	50	50	50	50	50	70	[80]	70	80	100
14.	50	50	50	50	50	50	60	70	—	80	80	90	80
15.	50	60	60	60	50	50	50	50	50	50	[60]	[50]	50
16.	50	50	50	50	50	50	50	50	50	50	[60]	60	70
17.	70	60	60	50	60	70	80	120	110	[120]	150	120	130
18.	20	20	40	10	40	50	70	60	80	100	[70]	40	40
19.	40	30	40	50	50	40	70	90	110	70	[60]	60	60
20.	—	—	—	10	40	50	40	70	70	[60]	60	50	50
21.	20	20	20	20	30	30	60	80	—	[80]	100	90	80
22.	30	20	50	50	40	30	0	0	10	20	+S	+S	+S
23.	30	30	30	20	30	40	40	50	50	[60]	+S	60	60
24.	30	-10	-10	-20	-10	-30	-10	30	50	70	[80]	100	70
25.	-40	-20	-20	-10	10	-10	-70	-120	10	[30]	[30]	40	10
26.	40	30	30	-30	20	-S	+S	+S	+S	70	[70]	30	-30
27.	30	20	30	30	10	10	30	60	[50]	50	60	70	60
28.	30	30	30	30	30	40	—	—	140	130	170	140	90
29.	30	40	40	10	30	10	60	60	30	—	—	—	—
30.	60	70	80	80	70	70	80	80	[90]	120	100	90	90
31.	50	50	60	60	70	60	100	120	100	[70]	80	—	—
Means	42	42	46	39	46	47	56	59	67	74	80	80	76
Number, of days	30	30	30	31	31	30	29	27	27	30	28	28	28

MAGYAR
JUDOMAYOS AKADEMIA
KÖNYVTÁRA

13	14	15	16	17	18	19	20	21	22	23	Daily means
150	160	170	130	150	130	130	60	40	-20	-100	117
20	10	20	20	20	-10	-30	-70	-30	-10	-20	-22
90	70	70	90	100	90	90	90	100	80	90	65
120	140	170	140	140	110	80	70	80	90	70	106
120	130	100	100	110	110	100	90	80	90	80	85
100	70	90	100	90	50	60	70	70	70	70	78
80	70	70	70	70	60	50	70	60	50	50	—
80	90	100	110	100	110	100	100	90	80	70	72
90	50	80	80	70	90	90	80	70	60	60	88
60	70	90	100	120	100	100	70	70	40	50	67
50	40	10	-10	-20	0	10	60	80	70	60	45
100	100	110	100	100	140	170	120	70	70	70	80
80	70	50	50	50	50	50	50	50	50	50	58
70	60	70	60	70	70	70	70	70	60	60	65
50	40	50	50	50	60	50	50	60	50	50	52
60	70	50	50	60	80	70	90	110	110	70	63
120	100	90	90	80	90	80	70	70	40	30	86
40	50	50	60	20	70	70	50	30	60	50	50
50	50	60	50	40	60	-10	—	—	—	—	—
40	30	20	20	20	30	40	40	40	40	20	—
60	40	30	30	20	30	30	30	50	60	30	45
±S	±S	30	-120	-50	30	50	50	50	30	30	—
60	70	50	50	50	40	40	30	30	40	30	43
50	40	40	50	40	40	30	30	30	30	-10	30
30	60	30	-S	30	±S	70	10	50	50	40	—
±S	30	20	30	30	40	50	40	30	30	30	—
60	50	50	50	50	60	70	70	100	50	40	48
100	110	80	50	60	50	10	10	10	-10	10	—
—	—	—	—	±S	-30	50	30	10	10	30	—
60	50	50	40	60	90	70	80	80	80	70	75
90	70	70	70	80	80	80	70	60	60	80	74
74	69	66	59	60	64	62	56	57	50	42	
28	29	30	29	30	30	31	30	30	30	30	

April

Hour GMT													
Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	60	40	40	40	40	-40	-20	-10	[20]	[$\pm$ S]	120	0	-20
2.	40	20	0	0	-20	-10	-20	-20	20	[30]	60	70	70
3.	70	60	50	40	40	60	50	60	30	$\pm$ S	-S	-S	-S
4.	60	60	60	90	+S	+S	160	100	[120]	120	30	30	100
5.	40	40	40	50	50	60	—	—	20	130	60	70	90
6.	70	50	40	40	60	70	80	90	[100]	100	90	70	80
7.	$\pm$ S	60	40	40	50	40	50	120	$\pm$ S	$\pm$ S	$\pm$ S	$\pm$ S	$\pm$ S
8.	90	80	60	60	60	80	100	100	80	[90]	80	70	70
9.	70	80	60	50	60	90	60	90	90	[80]	60	80	90
10.	120	130	100	130	120	90	90	100	[30]	20	60	70	70
11.	30	40	50	30	30	70	[70]	—	40	30	40	50	50
12.	50	40	40	40	30	+S	+S	-40	$\pm$ S	$\pm$ S	$\pm$ S	$\pm$ S	10
13.	40	40	40	40	50	50	60	60	70	[70]	70	60	40
14.	30	40	40	50	50	60	60	50	[+S]	60	80	$\pm$ S	$\pm$ S
15.	20	20	20	10	40	60	-70	50	-10	[-30]	0	30	40
16.	40	$\pm$ S	-S	40	50	60	40	70	40	[80]	50	+S	40
17.	30	30	30	30	40	60	[50]	60	70	70	60	60	60
18.	30	20	30	40	40	50	—	—	50	50	50	50	50
19.	40	40	40	50	60	80	80	[90]	90	100	90	90	70
20.	40	40	40	40	50	70	100	[70]	70	70	70	60	50
21.	20	30	30	10	10	10	30	50	60	[30]	20	30	30
22.	20	10	40	30	30	30	-50	[-50]	-20	—	—	—	-50
23.	-10	-10	20	20	20	30	70	30	[-50]	-100	-120	-90	-20
24.	40	50	30	20	30	30	50	50	50	60	[70]	80	70
25.	40	50	60	50	50	50	—	—	70	70	70	50	60
26.	40	40	40	40	40	50	70	50	[70]	70	80	80	60
27.	40	40	30	40	40	50	60	50	40	40	40	[40]	30
28.	20	20	10	10	10	20	40	50	50	[60]	60	60	50
29.	0	10	30	50	50	50	60	60	60	[50]	50	50	50
30.	-20	-20	-20	0	10	30	40	70	70	[80]	90	80	70
Means	40	40	38	39	41	48	50	54	49	57	55	52	49
Number of days	29	29	29	30	29	28	26	26	27	25	26	24	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
-10	-40	-10	-10	-20	-10	-10	30	0	30	20	10
80	60	80	50	50	60	70	70	70	60	60	40
0	40	50	40	40	40	40	40	40	40	50	—
80	70	60	70	60	50	60	50	40	40	50	—
100	100	90	100	120	100	110	100	90	80	90	—
90	90	80	60	30	40	50	40	30	20	±S	64
100	120	90	90	80	60	50	50	60	60	80	—
70	60	50	60	60	40	30	40	40	30	70	65
80	80	70	100	120	100	90	80	80	90	100	81
80	80	±S	-10	20	30	30	50	50	30	20	66
60	60	50	50	60	60	80	70	80	80	60	54
60	60	50	50	40	40	60	60	70	60	40	—
40	60	60	50	70	70	70	70	40	20	40	53
±S	±S	±S	-S	60	40	30	20	0	30	20	—
60	70	60	50	60	60	-S	50	40	50	50	32
40	60	±S	30	40	70	70	90	70	50	40	—
60	60	50	50	50	50	50	50	30	10	20	47
50	50	40	40	50	50	50	50	50	40	40	—
80	80	70	40	40	50	50	50	50	40	40	65
40	30	40	40	40	40	50	40	50	40	40	51
30	30	40	40	40	50	50	40	40	40	40	33
0	10	30	20	20	30	10	-10	-10	-20	-10	—
20	30	40	40	40	40	40	50	50	40	40	9
50	50	40	50	50	50	50	40	40	50	40	48
60	50	50	50	40	40	30	40	30	40	40	—
50	30	20	20	30	30	40	50	40	30	30	46
30	30	30	30	20	30	30	20	20	20	20	34
30	30	30	30	20	20	30	30	40	40	40	33
50	40	40	30	40	30	±S	±S	-20	-30	-20	—
50	50	50	50	30	0	10	40	40	40	50	37
53	53	50	45	47	45	47	48	42	38	41	
29	29	27	29	30	30	28	29	30	30	29	

													May
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	50	50	50	30	30	40	60	30	30	[50]	40	40	30
2.	—S	±S	±S	±S	±S	30	60	—	—	—50	—30	—20	10
3.	40	40	50	40	50	50	50	50	60	[60]	±S	+S	+S
4.	10	20	30	40	—10	10	50	40	10	[—10]	0	0	30
5.	30	20	20	30	30	50	50	30	[20]	10	30	30	30
6.	20	20	20	10	20	30	40	50	[50]	50	50	40	40
7.	30	20	10	30	40	50	50	50	[70]	50	50	40	40
8.	10	10	10	20	30	10	10	10	—10	[—20]	10	40	30
9.	—20	—20	—50	—50	—	—	—	—	—	—	—	20	40
10.	20	20	20	10	10	40	50	40	40	[50]	50	40	30
11.	10	0	10	10	—20	40	50	40	50	[40]	50	50	40
12.	30	20	10	10	20	40	50	50	[50]	40	50	40	40
13.	30	40	40	40	50	50	50	70	[60]	60	50	40	30
14.	30	30	30	30	30	30	[40]	50	50	50	50	40	40
15.	40	50	50	50	50	50	[50]	50	50	50	30	30	40
16.	30	40	40	30	40	50	—	—	30	30	30	20	20
17.	20	20	20	20	30	40	50	[50]	50	50	30	30	30
18.	40	40	40	50	70	60	60	[70]	70	80	90	80	70
19.	20	20	30	30	40	70	60	70	[50]	[50]	50	50	40
20.	30	40	40	40	50	50	60	70	[110]	120	100	60	40
21.	10	—30	—20	0	10	30	[50]	[60]	70	60	60	50	50
22.	40	30	40	50	70	80	[70]	60	50	50	60	70	60
23.	—S	±S	±S	—	—	—	—	—	±S	—	0	—20	±S
24.	—110	—70	—40	0	10	20	20	30	[30]	30	30	30	—S
25.	60	70	40	30	20	20	—10	0	—10	[—10]	40	30	30
26.	30	30	20	10	30	50	70	70	[30]	30	40	50	40
27.	0	—20	10	10	10	10	10	0	—20	0	[—10]	[10]	10
28.	0	10	20	20	30	50	50	60	[60]	30	30	30	30
29.	40	50	50	40	60	80	50	[40]	40	30	30	30	20
30.	50	30	30	30	30	50	90	—	—	100	100	80	60
31.	20	30	30	30	30	50	40	50	[50]	40	40	40	50
Means	21	21	22	24	31	42	48	46	42	39	40	36	36
Number of days	29	29	29	29	28	29	28	26	27	29	29	30	28

13	14	15	16	17	18	19	20	21	22	23	Daily means
20	30	30	40	60	50	50	40	-S	±S	0	—
30	40	40	50	50	50	60	60	50	50	50	—
±S	30	20	20	30	30	40	40	20	10	10	—
40	30	30	±S	±S	±S	±S	30	40	30	20	—
30	20	30	20	±S	50	30	30	30	20	10	28
40	50	50	50	40	40	40	60	60	40	40	40
40	40	40	30	30	30	30	30	20	0	10	35
10	10	20	0	-40	20	40	20	-20	-40	-50	5
60	40	20	20	10	10	20	30	30	30	20	—
40	40	40	40	30	30	30	20	30	10	10	31
40	40	40	40	40	30	20	0	-120	-100	20	18
40	30	40	40	30	40	40	40	30	20	30	35
30	30	20	30	30	30	30	30	30	30	30	39
40	30	30	30	30	30	30	40	50	40	50	38
30	30	30	30	40	30	30	30	40	40	30	40
30	30	30	40	40	40	30	40	30	20	30	—
30	40	50	50	50	50	50	50	50	50	40	40
50	50	50	60	60	50	40	40	30	40	30	55
40	30	30	30	0	10	20	20	30	40	40	36
40	40	50	50	40	30	30	30	10	30	40	50
40	40	40	50	50	30	10	30	40	50	40	34
50	50	40	40	40	50	40	30	10	-S	20	48
-S	0	-40	10	30	±S	±S	±S	±S	-10	-40	—
±S	-S	±S	±S	-S	30	20	30	10	40	40	—
30	30	-S	±S	10	30	30	20	20	30	30	—
40	40	60	60	50	30	20	20	10	10	0	35
30	40	40	30	30	20	10	20	20	20	20	13
30	30	30	40	40	40	40	30	40	40	40	34
-10	-S	±S	—	—	—	20	30	50	30	60	—
70	60	60	50	50	40	40	30	50	30	20	—
±S	±S	30	40	40	50	40	30	30	30	30	—
36	35	34	36	34	35	32	32	25	22	23	
27	28	28	27	27	28	29	30	29	29	31	

June

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	20	20	30	30	40	50	30	40	[40]	30	30	30	30
2.	10	20	20	10	30	30	30	30	[40]	40	40	30	30
3.	—	—	—	—	40	70	100	120	[110]	110	80	70	70
4.	20	40	30	30	40	50	60	60	70	[70]	80	70	80
5.	20	20	10	20	30	50	50	40	40	[40]	40	30	40
6.	10	20	30	30	40	50	[70]	—	$\pm S$	10	$\pm S$	20	30
7.	50	40	30	30	40	60	[70]	60	80	80	70	60	70
8.	40	30	30	30	40	50	40	[40]	40	50	50	50	50
9.	40	40	40	30	50	50	60	50	70	[60]	50	40	40
10.	30	40	40	40	30	50	50	[50]	50	50	30	$\pm S$	60
11.	40	$\pm S$	$\pm S$	0	40	50	30	50	50	[70]	70	70	70
12.	10	20	20	10	10	30	[40]	50	70	70	60	60	60
13.	30	20	30	30	30	30	40	—	—	—	[60]	60	60
14.	—50	—40	—30	$\pm S$	$\pm S$	$\pm S$	$\pm S$	[—S]	110	100	70	100	—S
15.	20	10	10	0	10	20	20	30	40	[40]	40	40	20
16.	—10	—10	—20	—40	—50	—60	—S	—S	—S	—S	—S	—S	—30
17.	—20	—20	—10	0	0	20	40	[50]	70	60	50	50	20
18.	10	0	0	20	30	40	30	30	[10]	30	30	30	30
19.	40	30	30	30	40	20	40	40	40	[60]	50	50	—30
20.	$\pm S$	—50	—40	—50	—60	—30	10	—	[—30]	30	40	20	20
21.	40	40	30	40	40	30	50	70	[90]	140	110	50	40
22.	20	40	40	30	70	—	$\pm S$	[70]	90	$\pm S$	70	$\pm S$	$\pm S$
23.	30	40	50	80	90	70	70	80	[100]	110	90	110	100
24.	—10	0	10	10	30	20	10	20	[30]	40	50	50	40
25.	20	20	20	30	30	[40]	40	50	50	50	50	50	50
26.	40	30	20	20	30	30	40	[40]	40	60	$\pm S$	$\pm S$	—S
27.	40	30	30	40	40	50	50	—	—	50	50	50	50
28.	$\pm S$	$\pm S$	20	30	—10	30	$\pm S$	50	60	110	$\pm S$	80	$\pm S$
29.	50	70	70	80	60	70	90	100	[80]	80	60	50	50
30.	40	30	40	40	50	50	70	[60]	80	80	70	70	70
Means	21	20	21	23	30	36	47	53	58	64	57	53	42
Number of days	27	27	28	28	29	23	26	24	26	27	26	26	26

13	14	15	16	17	18	19	20	21	22	23	Daily means
30	40	40	40	40	40	40	30	30	30	20	33
40	40	70	$\pm S$	$\pm S$	$\pm S$	30	50	—	—	—	—
80	70	50	60	70	50	50	40	40	50	30	—
60	70	50	50	40	40	30	30	30	30	20	47
30	30	30	30	40	40	40	—S	$\pm S$	—S	20	—
50	50	50	50	60	70	50	50	60	60	40	—
80	80	80	80	70	50	40	40	50	50	40	58
40	50	40	40	50	50	40	40	40	40	40	42
40	50	—S	$\pm S$	$\pm S$	40	50	40	30	20	30	—
50	+S	130	70	30	40	40	50	50	40	30	48
70	60	70	80	70	50	30	0	10	20	0	—
50	60	60	70	80	70	60	50	50	30	20	46
80	70	50	—10	$\pm S$	+S	$\pm S$	$\pm S$	—50	40	10	—
$\pm S$	$\pm S$	40	30	40	40	30	20	0	10	10	—
0	20	20	10	10	10	40	30	30	—10	—10	19
20	40	30	20	—20	—30	—S	—S	—S	—S	—40	—
20	40	40	40	30	50	50	50	40	40	30	31
50	20	0	10	20	40	40	50	50	50	50	28
20	10	10	—10	$\pm S$	—70	—80	+S	$\pm S$	$\pm S$	—60	—
60	30	30	40	30	30	30	20	30	40	40	—
20	30	20	30	40	50	30	30	30	20	20	45
70	80	50	50	50	30	40	50	30	40	20	—
90	80	70	70	70	50	50	40	40	30	0	67
50	50	50	50	50	50	50	40	40	40	30	33
50	40	80	$\pm S$	$\pm S$	$\pm S$	40	30	30	40	40	—
50	30	—S	—S	40	50	40	40	40	30	30	—
40	40	+S	+S	40	40	40	30	40	30	40	—
$\pm S$	$\pm S$	+S	—40	—20	10	10	0	—10	0	30	—
50	50	60	60	70	70	90	70	50	50	40	65
70	70	50	40	50	40	40	30	30	30	30	51
49	48	49	38	42	37	37	37	31	33	21	
28	27	26	25	25	27	28	26	26	26	29	

July													
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	20	20	20	20	20	40	40	[50]	[40]	40	40	40	40
2.	10	10	10	10	10	10	[20]	30	40	40	50	50	40
3.	—30	0	—10	—30	10	30	[40]	50	70	70	70	60	50
4.	40	30	30	30	40	40	—	—	70	80	70	70	70
5.	50	40	40	40	40	70	70	[80]	100	100	90	80	60
6.	30	20	20	30	40	60	[50]	40	30	30	40	30	30
7.	30	30	30	30	30	40	[40]	40	30	20	30	30	30
8.	10	20	±S	±S	—S	60	[70]	60	50	40	40	50	70
9.	—10	—30	10	40	40	50	50	[60]	60	50	50	50	50
10.	40	40	40	40	40	60	50	[70]	70	70	50	60	60
11.	30	40	40	30	40	40	—	—	60	70	90	+S	±S
12.	10	10	0	20	30	[50]	[70]	70	70	+S	—30	+S	±S
13.	40	50	30	30	40	[40]	[50]	50	60	60	50	40	30
14.	—	—	—	—	—	—	[50]	50	50	50	40	30	30
15.	40	30	30	30	40	[40]	60	70	80	80	80	80	60
16.	10	10	10	20	20	20	[30]	[30]	40	40	50	50	50
17.	40	40	40	40	50	50	—	—	60	50	50	60	70
18.	10	20	10	10	20	30	—	—	10	10	20	20	—10
19.	20	20	20	20	40	[30]	40	40	40	60	70	70	120
20.	40	40	40	40	40	[60]	[90]	90	100	90	70	—	—
21.	—	—	—	—	—	—	—	80	100	100	90	90	80
22.	60	50	50	50	50	60	[80]	80	80	70	70	60	60
23.	40	40	30	30	30	[40]	40	70	80	80	60	60	50
24.	40	40	40	30	30	40	50	[40]	30	30	40	40	—S
25.	—	—	—	—	—	—	—	—	70	+S	50	50	60
26.	40	40	40	40	50	50	[50]	60	50	50	60	70	80
27.	30	30	30	30	40	[40]	[50]	60	70	70	60	50	40
28.	30	40	30	40	50	40	[40]	[50]	50	60	50	10	10
29.	20	20	10	30	10	±S	—	—	—	+S	±S	±S	0
30.	30	40	30	30	30	20	20	[50]	50	50	40	40	30
31.	30	30	20	10	20	—	—	—	—	70	60	60	60
Means	27	28	26	27	33	43	50	57	59	58	53	52	49
Number of days	28	28	27	27	27	26	23	24	29	28	30	27	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
50	50	40	40	0	10	10	10	20	10	10	28
40	40	40	30	30	30	20	10	10	-40	-30	21
50	50	50	50	50	50	40	50	50	40	40	38
70	70	80	70	70	80	70	50	50	40	40	—
50	40	40	40	30	20	30	40	30	30	20	51
30	40	30	40	40	40	30	30	40	40	30	35
30	30	±S	±S	+S	-20	±S	0	30	20	10	—
60	50	10	±S	+S	30	20	10	0	10	0	—
50	50	50	60	60	50	50	50	40	40	40	42
50	40	50	50	50	60	50	50	40	40	30	50
+S	±S	-S	±S	±S	-S	30	20	0	10	20	—
+S	40	20	40	40	40	40	40	40	50	50	—
+S	30	40	30	30	30	30	20	10	10	—	—
40	50	40	50	40	50	40	40	40	40	40	—
50	50	60	60	50	60	40	40	40	40	20	51
50	50	50	50	50	50	50	40	40	50	50	38
70	60	60	50	50	50	40	30	20	20	10	—
-40	-20	-50	-30	20	20	20	20	20	20	20	—
±S	±S	±S	0	10	10	20	20	30	20	40	—
—	—	—	—	—	—	—	—	—	—	—	—
70	60	60	60	60	60	60	50	80	80	70	—
60	40	40	40	40	40	40	40	40	30	30	53
40	40	40	40	40	40	40	60	40	40	40	46
-S	±S	—	—	—	—	—	—	—	—	—	—
50	50	60	60	60	50	30	30	40	50	40	—
80	70	60	60	50	30	30	30	30	30	40	50
40	40	30	30	30	40	50	40	30	40	40	42
30	40	40	±S	+S	+S	10	10	20	30	30	—
70	30	10	0	10	20	30	50	80	70	40	—
20	30	20	10	20	30	40	40	40	40	30	33
50	30	30	20	20	30	30	30	20	30	30	—
46	43	38	38	38	37	35	33	33	32	30	
25	27	26	25	25	27	28	29	29	29	28	

August													
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	20	20	20	20	30	40	—	—	40	20	10	0	0
2.	10	20	30	—S	±S	±S	[—S]	80	60	50	50	60	70
3.	0	±S	±S	±S	±S	[40]	[130]	90	80	60	+S	+S	40
4.	0	+S	±S	80	60	50	50	—	[80]	80	60	40	30
5.	10	20	20	0	40	10	[30]	[40]	10	20	40	70	60
6.	30	30	30	30	40	40	[40]	[40]	20	40	30	—S	40
7.	30	30	20	20	20	30	[20]	[30]	40	40	50	40	90
8.	20	30	30	20	10	10	10	—	30	30	40	30	40
9.	30	40	30	30	40	40	50	[60]	70	80	80	70	40
10.	30	30	40	30	30	40	60	[70]	80	90	90	90	70
11.	40	40	30	30	50	60	70	60	[60]	70	60	70	60
12.	10	0	10	0	20	30	20	30	[40]	60	70	70	60
13.	20	20	20	10	0	±S	±S	—S	0	—30	20	—10	30
14.	40	30	30	30	30	30	[40]	50	80	90	100	90	80
15.	40	40	40	40	50	50	70	—	60	50	50	40	40
16.	30	30	10	10	30	40	40	40	[40]	40	40	50	60
17.	40	30	40	40	40	40	60	60	(80)	70	[80]	70	50
18.	20	20	20	20	20	30	40	[30]	60	60	70	60	70
19.	30	30	30	30	30	40	60	[50]	50	60	50	50	50
20.	10	10	10	10	10	30	[40]	[30]	30	30	40	40	30
21.	30	30	20	30	30	30	[60]	[60]	40	50	50	40	20
22.	30	20	20	30	30	40	—	—	90	90	100	100	80
23.	40	40	40	40	40	50	[70]	[70]	10	20	50	60	40
24.	40	30	50	30	40	30	40	50	50	[40]	40	40	40
25.	100	+S	+S	±S	±S	—S	100	130	100	[120]	120	130	80
26.	60	40	40	50	50	60	90	100	100	[100]	100	100	90
27.	40	30	20	20	20	30	40	[60]	60	90	90	80	80
28.	50	40	40	40	50	50	[50]	70	70	70	80	80	70
29.	30	40	40	60	60	80	—	—	80	90	70	70	60
30.	50	50	50	40	40	30	40	[50]	60	70	70	50	60
31.	20	30	30	30	40	40	[40]	50	70	50	40	40	40
Means	31	28	28	29	34	39	52	58	55	58	61	59	54
Number of days	31	29	28	28	28	28	26	24	30	31	30	29	31

13	14	15	16	17	18	19	20	21	22	23	Daily means
20	20	20	20	30	30	30	30	30	30	40	—
60	60	50	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	30	30	—
50	40	40	50	40	40	50	—S	$\pm S$	—S	—10	—
30	40	40	40	—20	$\pm S$	60	50	60	40	10	—
40	50	$\pm S$	$\pm S$	90	80	20	30	40	30	30	—
40	70	60	40	40	40	50	60	60	50	40	42
80	30	—50	—10	30	0	30	30	40	40	40	30
40	30	30	30	30	40	40	50	40	30	40	30
50	30	20	20	30	20	30	40	50	30	10	41
80	70	60	50	40	10	10	10	30	30	30	49
50	60	60	30	30	40	50	30	40	20	20	47
60	60	40	30	30	40	30	30	40	30	30	35
30	40	40	20	40	50	60	60	60	60	50	—
70	70	70	60	60	70	60	40	50	50	40	57
50	40	30	30	40	40	40	40	30	40	40	43
60	60	60	60	60	40	40	—	—	40	30	—
60	60	60	50	60	40	40	30	20	20	20	47
—S	$\pm S$	$\pm S$	50	50	40	30	30	40	40	30	—
40	40	50	40	30	20	20	20	20	10	10	36
30	30	20	20	20	20	20	30	30	20	30	25
30	40	30	20	30	30	30	40	30	30	20	34
70	60	60	50	60	50	40	40	40	40	40	—
40	40	30	30	30	40	40	40	40	40	40	41
40	40	40	30	40	50	140	80	$\pm S$	$\pm S$	60	—
30	20	50	40	40	50	40	50	60	60	70	—
90	90	90	90	70	60	40	30	30	20	30	68
80	80	80	70	60	60	40	50	50	40	40	55
80	90	80	70	60	60	70	60	60	60	40	62
30	20	50	50	50	40	50	70	50	50	50	—
70	50	60	50	50	50	50	50	30	40	20	49
30	30	40	40	40	40	50	40	50	40	30	40
51	49	45	40	42	41	43	41	41	37	32	
30	30	29	29	30	29	30	28	27	29	31	

September													
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	30	30	30	30	40	40	40	50	50	[50]	40	30	20
2.	30	30	30	30	20	30	40	40	[50]	50	50	50	50
3.	+S	30	30	40	40	+S	[30]	30	+S	120	110	60	—S
4.	—	—	—	—	—	70	[100]	90	70	50	50	70	70
5.	50	50	50	50	50	70	—	—	80	70	50	40	40
6.	30	30	30	40	40	60	100	110	[120]	[110]	100	90	60
7.	20	0	—20	10	30	40	40	—S	60	60	80	60	[60]
8.	30	30	20	20	40	40	50	[60]	80	80	70	60	50
9.	20	0	0	—10	10	30	50	80	[110]	100	100	90	80
10.	50	50	50	50	60	60	[80]	60	70	30	10	0	20
11.	40	40	50	40	40	40	[40]	50	60	40	±S	60	80
12.	50	±S	—S	20	30	60	—	—	70	70	60	60	50
13.	50	50	40	40	50	50	—	—	[70]	50	60	±S	±S
14.	40	50	50	50	50	60	100	[110]	100	90	100	100	80
15.	50	70	70	70	80	100	80	70	70	[100]	110	80	80
16.	40	30	30	50	60	50	70	90	70	[50]	50	60	60
17.	±S	±S	—S	±S	±S	30	50	[100]	120	120	110	+S	+S
18.	40	40	50	50	50	50	[50]	60	50	70	70	50	50
19.	30	30	30	30	30	40	50	—	[110]	120	110	100	110
20.	50	50	50	70	70	70	80	100	[110]	110	100	80	110
21.	20	30	40	50	50	50	80	110	[130]	120	70	60	50
22.	40	30	30	40	30	40	±S	[+S]	60	80	70	70	30
23.	50	40	40	60	50	60	80	130	[150]	130	120	110	90
24.	40	50	50	50	50	50	[80]	(70)	(70)	60	50	50	50
25.	60	50	10	—S	30	30	±S	±S	+S	110	80	80	80
26.	50	50	50	50	50	70	80	80	—	—	100	100	100
27.	40	40	30	40	40	40	40	60	60	(70)	[70]	60	50
28.	60	50	60	70	70	60	50	120	130	80	[50]	50	70
29.	70	40	40	30	20	30	50	80	90	80	[60]	50	50
30.	0	10	20	10	—10	0	—10	0	30	[40]	50	50	70
Means	40	37	36	40	42	49	60	76	83	80	74	65	63
Number of days	27	27	27	27	28	29	25	22	26	28	29	28	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
30	40	40	30	30	40	40	40	40	30	30	36
50	50	50	50	50	50	50	50	50	50	50	44
—S	50	—	—	—	—	—	—	—	—	—	—
60	60	60	60	70	70	70	60	60	50	50	—
60	60	60	60	60	40	40	40	40	40	40	—
50	40	30	30	50	60	60	40	50	30	30	58
60	70	80	70	70	70	60	50	40	40	40	47
30	30	40	40	40	40	40	40	40	40	40	44
60	60	60	50	50	50	50	50	40	40	40	50
—10	—40	20	10	—S	20	40	40	40	40	40	34
±S	(±S)	±S	±S	—S	±S	—S	70	60	40	30	—
40	30	30	50	50	50	50	60	50	50	50	—
+S	±S	±S	40	40	50	+S	±S	60	50	50	—
80	80	80	80	80	70	50	70	50	50	60	72
70	70	60	70	70	50	30	50	60	50	40	69
80	70	50	50	60	60	50	50	—10	±S	±S	—
120	130	—	—	80	80	110	100	90	60	50	—
50	40	40	50	50	50	50	50	50	50	50	50
100	100	120	100	100	70	50	50	50	50	50	71
60	50	40	50	60	70	70	50	40	30	30	67
60	50	50	40	40	50	70	60	60	50	60	60
30	30	40	50	60	50	50	70	80	70	60	—
90	90	100	100	90	70	70	70	60	50	40	81
60	70	70	50	40	40	50	50	50	30	50	—
70	60	50	60	60	70	80	80	70	70	60	—
100	90	90	70	70	50	40	40	40	40	30	—
50	50	50	(50)	60	50	60	(70)	60	60	50	—
60	70	50	50	60	70	70	80	70	70	70	68
40	40	40	40	40	30	30	20	30	20	10	43
60	50	50	60	70	50	50	30	20	20	0	30
60	57	56	54	59	54	55	54	50	45	43	
27	28	26	26	27	28	27	27	29	28	28	

October

Hour GMT													
Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	0	10	0	10	0	0	10	20	40	40	40	[50]	60
2.	20	20	10	20	20	30	20	30	40	40	50	50	50
3.	40	50	$\pm S$	$\pm S$	40	$\pm S$	$\pm S$	$\pm S$	—	—	60	40	70
4.	40	30	30	30	30	40	50	50	70	70	70	60	[160]
5.	40	40	30	30	50	50	80	110	80	70	[60]	50	50
6.	30	40	40	30	50	40	70	90	70	60	[60]	50	50
7.	40	30	30	40	40	40	50	70	70	70	[60]	50	40
8.	50	60	50	40	40	40	50	50	60	[60]	60	60	50
9.	40	30	30	30	20	20	20	$\pm S$	10	60	100	—S	$\pm S$
10.	20	—10	20	10	20	40	40	[20]	—	60	60	70	80
11.	60	80	70	80	70	—100	—80	$\pm S$	—60	30	[50]	30	0
12.	30	30	30	40	40	50	60	70	70	—	—	[60]	60
13.	40	30	30	40	40	70	80	80	80	[90]	100	120	110
14.	60	50	40	40	50	40	60	60	70	60	[60]	70	80
15.	30	20	30	40	40	70	80	[80]	80	70	70	70	80
16.	70	50	70	80	60	50	60	70	70	60	60	60	50
17.	60	40	$\pm S$	—10	0	0	0	—	—	—	—	—	—10
18.	60	40	40	40	50	60	70	80	80	70	—	60	70
19.	50	50	50	50	60	70	110	130	120	120	[100]	70	80
20.	40	60	50	50	50	60	50	50	90	60	[70]	60	70
21.	50	50	40	40	50	30	30	50	50	[50]	60	60	70
22.	20	30	—30	0	20	30	30	0	70	50	70	[30]	20
23.	20	10	20	30	30	20	30	60	60	50	70	[70]	60
24.	30	30	30	20	20	10	20	—	—	40	90	90	(80)
25.	60	40	30	30	40	10	—20	—20	10	10	—10	[20]	40
26.	50	40	40	40	40	30	40	40	70	50	[60]	70	60
27.	40	40	60	40	40	40	70	80	90	70	[60]	70	80
28.	40	30	50	50	40	40	60	70	60	60	[60]	50	50
29.	30	30	50	60	50	60	40	50	100	40	30	[30]	40
30.	—10	0	—30	—20	—10	—30	0	10	20	30	0	30	[20]
31..	—30	—10	—20	—20	—30	0	10	—	—	70	80	70	60
Means	36	34	31	32	34	30	40	56	60	58	61	58	54
Number of days	31	31	29	30	31	30	30	25	26	28	28	29	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
60	70	80	90	90	90	100	50	50	40	40	43
[50]	50	40	40	40	40	40	40	40	50	50	37
60	60	50	50	30	70	40	50	50	40	40	—
50	50	40	50	50	40	50	50	50	40	40	48
50	50	50	40	40	40	40	40	40	50	40	51
±S	±S	(±S)	—	(30)	50	50	60	50	50	50	—
40	40	40	40	30	30	40	50	50	40	40	45
30	40	50	50	50	50	50	50	50	60	70	51
30	40	50	50	50	70	80	60	60	50	40	—
80	90	60	80	70	80	70	70	60	40	50	51
±S	±S	±S	±S	±S	±S	±S	±S	±S	±S	20	—
70	80	80	80	90	100	80	90	80	60	40	—
110	120	110	120	100	90	80	30	60	60	50	77
80	80	70	50	70	80	80	70	80	50	30	62
90	60	50	40	40	50	80	60	50	60	80	59
[50]	60	70	70	70	70	50	50	80	30	70	64
20	60	90	40	10	—20	0	10	30	40	50	—
60	60	70	90	90	100	130	110	80	70	60	71
60	60	60	60	70	70	70	80	70	50	30	72
100	120	90	100	90	100	80	90	70	80	70	73
50	60	50	50	60	70	80	50	30	0	20	48
30	30	40	50	30	—20	—20	0	10	10	20	22
60	50	60	50	60	40	40	50	50	50	40	45
(90)	100	90	80	40	50	40	40	40	40	30	—
60	60	70	40	30	0	20	10	30	30	30	26
40	60	70	60	80	70	60	50	60	50	60	54
80	80	50	0	10	30	20	20	40	60	40	50
60	50	40	30	30	30	70	80	60	30	10	49
60	40	0	—10	—10	—10	0	0	—20	—30	—40	25
0	10	20	10	20	—10	20	—20	—40	—10	—20	0
60	90	90	70	60	60	40	40	60	40	30	—
57	63	60	52	52	50	53	48	47	43	39	
28	29	29	30	29	30	30	30	30	30	31	

November													
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	30	20	30	40	40	30	30	30	40	40	[50]	70	60
2.	0	0	0	0	10	10	20	60	60	50	—	—	—
3.	20	20	10	10	10	0	0	10	—10	—20	—10	0	[—10]
4.	—10	—10	—10	—10	—10	—10	—10	0	—30	—10	[—10]	0	40
5.	20	20	40	30	30	20	30	40	50	70	60	[50]	60
6.	0	0	0	0	—10	—10	10	30	40	40	60	[60]	80
7.	20	10	20	0	0	30	0	20	10	—10	—	—	50
8.	0	0	0	0	0	0	0	—	—	—10	—	(40)	50
9.	—10	0	—10	—10	—20	—10	0	0	0	40	[40]	20	20
10.	70	40	30	40	30	40	10	20	30	10	[20]	30	40
11.	40	20	40	50	20	20	30	40	40	50	[50]	60	50
12.	80	80	90	80	90	60	90	130	150	+S	[160]	130	130
13.	40	40	50	50	40	40	50	70	[90]	110	110	110	100
14.	70	50	50	50	50	60	60	60	—	—	100	90	70
15.	40	40	40	40	50	50	50	60	60	70	[60]	70	70
16.	40	50	50	60	70	70	70	60	60	[90]	100	120	120
17.	50	50	60	60	50	50	60	70	80	80	[80]	90	100
18.	40	50	50	50	50	70	80	70	90	100	[110]	80	80
19.	60	20	10	—10	—20	20	60	70	100	90	110	[110]	110
20.	50	60	40	50	30	20	—10	—20	—30	—30	[—50]	—10	—10
21.	80	70	50	10	20	10	0	[30]	—	70	—	60	70
22.	60	60	70	60	50	50	50	70	70	70	[70]	70	70
23.	40	30	20	30	70	80	110	130	130	130	[90]	100	80
24.	70	80	60	60	80	60	70	80	110	90	[90]	100	110
25.	—30	20	20	10	—10	10	0	—10	—20	0	[—10]	—10	—10
26.	30	70	60	40	20	20	30	90	50	—20	[—20]	0	30
27.	160	170	150	170	120	40	0	10	0	0	(0)	0	10
28.	50	—70	—60	40	50	50	50	50	—	—	130	110	80
29.	60	40	30	40	40	50	70	70	50	0	[0]	10	30
30.	70	50	40	±S	±S	±S	70	80	90	90	[90]	80	±S
Means	41	36	34	36	33	32	36	49	50	44	59	60	60
Number of days	30	30	30	29	29	29	30	29	26	27	25	27	28

13	14	15	16	17	18	19	20	21	22	23	Daily means
70	80	80	60	60	50	60	40	30	10	0	44
60	50	30	60	50	50	50	60	50	30	20	—
-30	-40	-10	-20	-20	-10	-10	0	0	-10	-10	-5
40	30	10	10	20	30	20	30	20	10	-10	7
70	60	70	70	70	70	60	80	80	40	30	51
90	70	40	30	20	30	20	0	10	20	20	27
50	40	20	10	10	10	10	10	0	-10	0	—
40	20	-10	0	0	-20	-20	-20	-20	-10	-10	—
10	20	-10	30	30	20	10	0	50	50	50	13
20	10	30	30	50	10	0	0	10	0	10	24
10	-10	-10	0	0	30	60	70	70	80	80	37
120	120	120	110	110	70	70	60	50	50	30	95
100	110	120	90	90	120	110	100	90	80	60	82
90	70	80	80	80	70	120	100	60	50	40	—
80	80	70	80	90	70	60	60	50	40	50	60
80	90	110	110	100	110	80	60	50	70	60	78
100	90	70	80	80	110	120	80	70	50	40	74
60	70	60	60	70	60	100	70	60	50	70	69
110	100	110	80	60	20	20	30	30	30	30	56
10	0	-20	-10	0	0	10	10	-10	-10	70	6
60	60	70	80	110	120	100	70	50	50	60	—
80	80	80	130	140	90	80	90	60	50	50	73
60	60	110	90	110	130	110	130	120	110	80	90
110	110	120	110	—	—	—	70	110	50	20	—
-10	-10	10	10	0	30	40	60	70	70	40	11
110	60	60	140	150	150	150	170	200	120	160	78
-10	-20	0	0	±S	±S	±S	±S	20	40	30	—
80	120	90	80	40	30	60	60	50	60	70	—
40	20	-10	—	10	50	70	80	70	50	50	40
±S	±S	+S	+S	±S	90	80	±S	±S	+S	30	—
59	53	51	57	57	57	59	56	52	42	41	
29	29	29	28	27	28	28	28	29	29	30	

December

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	30	+S	-10	0	40	40	30	40	50	70	[40]	30	70
2.	30	0	60	60	-10	-30	40	70	120	120	[110]	130	130
3.	10	-10	-50	-60	-40	-10	40	40	40	90	[120]	130	150
4.	110	100	90	70	80	70	70	70	70	40	[40]	20	90
5.	100	80	80	100	70	120	110	—	—	200	150	180	110
6.	-80	-140	-140	-80	30	70	90	120	110	160	[160]	140	130
7.	0	20	0	-20	-20	10	40	40	30	30	[30]	30	60
8.	-20	-20	-10	-10	-20	-10	0	-40	-40	-20	[0]	-10	10
9.	80	50	50	40	40	40	40	10	30	60	[70]	90	90
10.	-70	-60	-70	-60	-40	-50	-50	-40	-40	-30	[-20]	0	0
11.	50	10	0	20	50	50	60	100	130	140	[140]	160	180
12.	70	60	50	50	50	50	60	—	—	170	180	170	170
13.	10	-50	-20	0	-20	-50	-90	-120	-110	-50	[-70]	-50	0
14.	-20	-40	-20	0	20	30	20	40	50	[70]	30	30	20
15.	-50	-50	-40	-30	-40	-40	-40	-30	-50	-50	[-40]	-40	-50
16.	-30	-30	-20	-10	-40	-20	0	-20	-50	-90	[-110]	-130	-130
17.	-80	-90	-80	-90	-80	-50	20	30	60	0	[0]	30	30
18.	-30	0	20	60	70	60	-20	10	-10	50	60	20	-50
19.	-20	-20	-10	20	40	60	30	—	—	-40	20	60	50
20.	50	40	40	50	60	-S	-S	+S	-S	-S	[-S]	90	110
21.	-50	-40	-60	-30	-40	-10	10	30	-10	-10	—	-20	-50
22.	40	40	70	100	90	60	-20	-60	-130	30	[-30]	-80	-70
23.	140	110	140	120	100	110	100	100	130	150	[180]	140	150
24.	0	+S	-S	-10	10	10	40	70	90	90	[110]	120	130
25.	60	60	50	50	50	80	160	80	70	70	[+S]	160	160
26.	160	160	150	120	110	80	80	40	40	60	—	70	70
27.	60	40	40	50	40	40	30	40	70	100	[90]	80	80
28.	50	40	50	50	70	80	80	(80)	120	120	[170]	150	160
29.	110	120	110	80	90	80	70	80	90	120	90	[90]	90
30.	60	40	40	80	120	210	+S	+S	+S	180	[200]	180	130
31.	50	30	0	0	0	-20	-20	0	10	80	[90]	90	90
Means	26	16	17	23	28	35	34	28	33	64	67	66	68
Number of days	31	29	30	31	31	30	29	25	26	30	27	31	31

13	14	15	16	17	18	19	20	21	22	23	Daily means
90	110	120	130	140	140	80	90	90	80	40	67
140	170	190	200	200	230	240	210	140	70	-10	109
170	150	160	160	150	+S	+S	90	110	100	130	—
90	70	60	100	120	90	170	170	170	140	100	92
60	30	20	80	90	70	40	20	20	30	10	—
110	90	120	150	170	180	160	170	30	-40	-30	70
50	30	30	40	40	30	40	40	20	-30	-70	20
20	40	50	40	60	80	120	130	110	120	110	29
90	90	-20	-20	-10	-50	-70	-70	-70	-70	-50	18
20	50	90	80	80	130	180	170	140	120	80	25
140	90	110	80	70	70	80	70	100	100	80	87
180	+S	150	+S	170	160	130	90	30	-20	20	—
10	-10	-20	-10	-40	-60	-80	-110	-110	-40	-30	-47
40	30	50	70	30	40	-30	-40	30	-40	-60	15
-40	0	-10	0	10	60	70	-20	-20	0	0	-21
-150	-110	-120	-120	-130	-110	-90	-90	-70	-80	-90	-77
70	80	50	40	60	40	70	50	0	20	-40	6
[-20]	-S	20	-10	80	40	-60	-130	-50	-30	-30	2
50	-40	-40	0	(30)	10	30	70	80	60	60	—
120	110	160	+S	60	60	70	80	70	70	-30	—
0	30	-20	10	20	10	10	30	0	10	30	-7
40	110	60	50	80	100	100	70	50	100	110	38
110	80	60	70	70	-10	-120	10	10	+S	-20	84
70	10	10	+S	60	0	-10	30	60	70	60	—
+S	+S	130	160	200	+S	+S	+S	+S	+S	+S	—
80	70	10	-S	+S	+S	40	70	60	50	60	—
90	100	100	120	120	130	120	120	100	80	60	79
90	90	110	140	140	140	150	150	150	120	120	110
90	100	90	100	130	160	150	150	130	80	50	102
130	100	130	190	170	150	80	40	80	90	30	—
80	80	80	70	90	90	130	90	20	30	30	50
67	63	62	71	84	71	62	58	50	41	24	
30	28	31	27	29	28	29	30	30	29	30	

Hourly means of the quantities of positive and negative

Hour GMT												
Day	0	1	2	3	4	5	6	7	8	9	10	11
January	+ 0	0	9	1	5	8	6	0	0	0	0	0
	— 0	0	0	0	26	2	5	0	0	0	0	0
February	+ 0	0	2	1	0	0	0	0	0	0	0	0
	— 1	0	1	4	0	0	0	0	0	0	0	1
March	+ 0	0	0	0	0	0	0	4	1	0	0	0
	— 0	0	0	0	0	0	0	0	0	0	0	0
April	+ 3	7	0	0	0	1	0	0	6	36	9	13
	— 9	1	0	0	0	0	0	0	12	51	11	2
May	+ 0	1	5	18	5	0	0	10	0	0	32	47
	— 0	1	19	20	7	0	0	10	0	0	0	0
June	+ 0	0	1	1	4	7	2	0	2	0	0	4
	— 0	0	0	0	0	26	4	0	7	0	0	24
July	+ 0	0	0	32	0	0	0	0	0	18	0	21
	— 0	0	0	2	0	0	0	0	0	0	11	1
August	+ 0	2	33	29	14	9	0	0	0	0	5	18
	— 0	11	23	14	20	14	8	0	0	0	0	0
September	+ 8	58	0	0	6	0	4	4	0	0	10	1
	— 9	59	2	0	6	0	13	2	0	0	11	0
October	+ 0	0	0	0	0	0	0	0	0	0	0	0
	— 0	0	0	0	0	0	0	0	0	0	0	0
November	+ 0	0	0	21	14	0	0	0	0	0	0	1
	— 0	0	0	66	13	0	0	0	0	0	0	3
December	+ 0	1	0	0	0	0	0	0	0	0	0	0
	— 0	0	0	0	0	0	1	0	0	0	0	0

charges transported by point-discharge for each month

12	13	14	15	16	17	18	19	20	21	22	23	Means
0	0	2	0	0	0	2	5	2	5	2	0	2.0
0	0	0	0	0	0	1	8	0	2	0	0	1.8
4	0	0	0	0	1	0	0	0	0	0	0	0.3
6	0	4	0	0	0	1	0	0	0	0	0	0.8
0	0	0	0	0	0	5	0	0	0	0	0	0.4
0	0	0	0	1	0	3	0	0	0	0	0	0.2
5	2	1	4	0	0	0	59	7	0	0	2	6.5
11	1	0	6	0	0	0	6	17	0	0	6	5.5
6	10	1	1	3	0	28	4	3	0	2	0	7.3
3	5	11	6	8	0	2	15	1	1	10	0	5.0
0	17	6	0	13	70	2	6	2	15	0	0	6.3
18	34	1	4	51	21	13	29	1	5	0	0	9.9
1	16	15	0	7	6	0	11	0	0	0	0	5.3
2	35	109	30	13	14	0	0	0	0	0	0	9.0
0	0	0	3	1	7	14	4	9	17	0	0	6.9
0	0	1	3	0	15	10	32	3	5	1	0	6.7
32	11	4	11	5	0	10	0	15	0	1	1	7.5
91	10	4	7	4	0	13	0	8	0	0	0	10.0
6	11	12	2	6	17	11	41	7	3	1	0	4.9
1	2	75	0	4	18	14	18	4	19	0	0	6.5
16	7	1	1	15	14	24	1	19	1	2	0	5.7
9	13	3	4	18	11	3	31	4	16	0	0	8.1
0	0	0	0	0	4	3	0	0	0	0	0	0.3
0	0	0	0	0	3	3	0	0	0	0	0	0.3