

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^{-4} Asec hour.

All data are presented in universal time (GMT).

Tables were compiled by F. MÁRCZ. 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. MÁRCZ: „Atmosphärisch-elektrische und ionosphärische Messungen im Observatorium bei Nagycenk”. Observatoriumsberichte des Geophysikalischen Forschungslaboratoriums der Ungarischen Akademie der Wissenschaften vom Jahre 1966, Sopron, 1967. Further informations are given by P. BENCZE and F. MÁRCZ: „The Geophysical Observatory near Nagycenk. II. Atmospheric electric and ionospheric measurements”. Acta Geod. Geoph. Mont. Hung. 16.1981, 353-357.

I.

Hourly means of the potential gradient

January													
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	130	190	160	120	190	180	140	90	130	[90]	+S	±S	—S
2.	90	80	80	70	90	90	70	80	100	120	[120]	110	100
3.	30	30	+S	+S	—20	20	30	40	±S	[80]	90	100	±S
4.	±S	80	70	80	80	80	100	90	110	110	130	[130]	140
5.	90	100	±S	±S	60	70	90	[90]	—	±S	±S	60	+S
6.	60	70	90	90	80	80	100	140	170	140	140	[160]	150
7.	±S	±S	±S	50	70	80	80	90	130	110	[80]	120	70
8.	110	130	130	140	140	130	180	190	230	210	[190]	170	200
9.	160	140	110	100	100	100	140	150	190	[220]	[220]	+S	+S
10.	130	130	130	130	100	180	+S	+S	200	[+S]	210	200	+S
11.	200	150	110	100	100	130	120	120	130	190	[+S]	+S	230
12.	10	40	50	60	50	40	100	[140]	—	190	170	150	170
13.	90	90	80	40	80	60	50	0	—20	—S	±S	±S	±S
14.	50	60	70	90	100	110	130	150	170	170	[140]	120	140
15.	70	70	—90	—40	70	70	90	50	—40	40	[80]	180	+S
16.	80	70	80	60	70	80	80	110	120	130	[90]	80	80
17.	60	50	60	60	60	20	30	80	100	[110]	80	120	100
18.	200	180	200	150	140	160	200	160	40	130	200	200	170
19.	±S	—S	130	40	40	30	20	[—10]	—	—	—	110	130
20.	130	120	—S	80	70	80	90	130	120	120	[100]	80	80
21.	50	40	50	40	40	30	30	30	—	—	—	[70]	70
22.	50	50	50	50	60	60	50	50	60	60	[70]	90	90
22.	50	50	50	50	60	90	70	70	120	[140]	150	160	160
24.	130	150	180	150	130	120	120	120	[130]	150	150	+S	+S
25.	140	90	90	120	110	90	110	120	50	40	[60]	60	100
26.	50	—	—	—	—	—	110	40	—	130	110	80	+S
27.	50	40	50	50	50	60	80	90	100	110	—	(140)	160
28.	130	130	120	130	130	140	150	160	180	140	[130]	150	150
29.	140	150	140	130	140	160	160	170	220	210	[210]	220	200
30.	120	120	110	130	120	120	120	130	220	200	[190]	220	220
31.	150	120	100	100	100	110	110	130	150	110	80	[150]	150
Means	98	97	92	85	87	92	98	100	124	133	133	132	139
Number of days	28	28	26	28	30	30	30	30	25	26	24	25	22

13	14	15	16	17	18	19	20	21	22	23	Daily means
±S	±S	80	40	±S	20	+S	80	90	90	90	—
100	90	80	70	100	110	120	80	30	60	30	86
40	90	130	130	140	100	80	160	190	±S	90	—
190	160	130	130	120	120	100	110	100	110	90	111
+S	40	70	80	90	110	80	80	±S	90	70	—
80	60	120	100	120	120	80	120	80	+S	±S	—
80	90	130	140	140	140	130	130	120	110	110	—
210	200	180	180	160	170	190	180	190	190	180	174
+S	+S	+S	180	170	180	180	190	+S	180	140	—
+S	+S	170	170	210	220	+S	+S	+S	+S	180	—
+S	+S	+S	130	130	170	130	120	50	60	(50)	—
140	130	130	120	120	120	120	130	140	140	130	113
—20	50	140	130	50	50	60	30	30	40	60	—
140	180	170	170	130	100	120	90	110	100	120	122
140	130	70	90	110	120	120	100	80	80	80	73
120	90	100	80	80	70	80	70	70	70	60	84
140	170	180	+S	180	160	200	+S	+S	190	170	—
180	—	—	120	190	180	220	200	170	200	±S	—
140	110	—100	30	60	90	80	60	120	120	130	—
80	+S	100	120	110	100	90	50	30	50	50	90
50	40	50	70	70	40	60	90	60	80	60	—
90	100	100	90	80	90	70	50	50	40	0	65
220	230	220	190	160	150	140	150	150	120	120	128
+S	+S	+S	130	120	150	150	150	150	150	150	—
100	90	90	70	80	90	+S	40	—20	+S	+S	—
—10	50	80	90	100	70	70	80	90	80	70	—
140	130	130	150	150	150	150	140	150	160	140	—
140	140	130	140	180	110	170	180	170	150	140	145
230	+S	+S	200	170	160	180	210	190	150	130	—
+S	+S	190	200	170	170	210	220	220	220	150	—
170	+S	160	180	190	200	180	+S	+S	160	170	—
120	113	117	124	130	124	127	118	108	118	108	
24	21	26	30	30	31	28	28	26	27	27	

February

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	200	130	90	70	60	70	90	140	130	+S	[130]	120	120
2.	80	100	70	60	60	130	150	[170]	—	+S	140	130	130
3.	80	90	90	130	150	160	200	+S	+S	220	[180]	170	180
4.	80	60	70	120	120	100	120	100	120	90	100	100	[120]
5.	90	90	110	110	110	120	120	120	140	120	90	[80]	80
6.	70	60	50	50	60	70	90	100	90	100	110	[110]	120
7.	50	30	+S	+S	—	—	—	+S	60	[60]	10	30	40
8.	80	80	50	60	50	70	80	80	110	130	[100]	80	110
9.	50	50	40	30	40	60	70	100	—	120	100	80	60
10.	50	50	60	70	50	70	30	—10	50	70	[80]	90	70
11.	30	50	50	50	80	70	90	120	110	110	100	[100]	90
12.	70	80	90	70	60	80	120	120	120	80	[70]	60	70
13.	70	60	50	60	60	60	70	70	70	80	[80]	90	80
14.	—S	40	40	50	20	—	0	20	[60]	100	120	90	70
15.	70	60	50	60	60	60	70	60	60	70	[70]	60	70
16.	50	50	50	60	70	90	100	—	—	130	160	140	140
17.	80	60	70	50	60	60	70	60	90	80	100	100	[100]
18.	100	80	60	60	70	90	110	120	110	110	90	90	[80]
19.	10	40	20	0	20	0	—10	120	30	70	80	70	[80]
20.	50	40	50	70	80	80	80	120	110	80	30	[40]	30
21.	50	50	50	40	40	30	50	50	40	[40]	40	30	30
22.	130	100	160	110	—S	+S	+S	+S	+S	50	20	40	50
23.	110	140	50	80	160	120	60	60	—	[60]	80	70	70
24.	100	80	70	60	40	50	60	100	90	80	[40]	40	80
25.	100	90	40	40	30	50	50	70	50	40	[80]	60	70
26.	30	30	—10	0	30	40	60	60	90	100	110	[120]	110
27.	80	80	60	60	70	80	100	110	100	90	[100]	120	110
28.	60	70	60	50	60	60	70	70	50	[50]	70	70	90
Means	75	69	59	62	66	75	81	89	87	90	89	85	88
Number of days	27	28	27	27	26	25	26	24	22	26	28	28	28

March

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	10	10	10	0	-10	0	0	-20	20	40	[60]	80	80
2.	-10	-30	10	-10	0	-10	10	0	—	10	20	20	20
3.	20	60	-10	30	50	120	110	130	120	[40]	60	90	130
4.	70	100	60	60	60	20	30	-10	10	[50]	50	40	40
5.	30	40	30	20	50	70	110	130	140	[130]	110	90	70
6.	60	50	40	30	20	30	30	40	80	100	[90]	100	90
7.	80	100	110	110	100	40	20	60	110	[100]	120	90	80
8.	70	70	70	70	70	70	120	140	140	[140]	130	120	120
9.	0	0	0	0	0	0	10	30	—	80	50	50	50
10.	70	50	30	10	-10	-10	20	40	20	30	[40]	-20	+S
11.	10	10	10	10	10	0	0	20	40	40	[50]	40	80
12.	40	40	30	20	$\pm$ S	30	70	60	40	[50]	40	50	20
13.	50	50	60	50	40	40	70	70	60	[50]	50	60	70
14.	60	60	50	70	60	60	100	110	70	[80]	70	30	70
15.	50	50	40	40	10	30	40	80	70	[50]	60	50	60
16.	40	80	30	30	60	70	80	[70]	—	70	80	40	60
17.	50	30	30	20	30	30	70	100	80	70	[70]	70	70
18.	10	0	0	+S	+S	30	40	30	10	70	[30]	30	60
19.	0	0	-10	-10	-10	10	0	30	70	-40	[-S]	-S	-S
20.	80	70	100	120	80	90	110	120	130	(120)	[110]	120	90
21.	110	120	120	130	110	120	140	140	180	[190]	160	120	100
22.	70	60	60	70	50	80	70	60	90	[90]	90	80	80
23.	30	50	60	60	70	80	90	120	—	[120]	100	100	120
24.	60	50	$\pm$ S	+S	+S	+S	+S	60	50	[70]	100	70	80
25.	10	+S	$\pm$ S	-S	$\pm$ S	20	10	30	20	40	[80]	100	40
26.	100	80	60	40	-10	10	20	40	60	[60]	100	90	80
27.	50	70	40	50	70	80	110	110	80	70	[70]	90	110
28.	50	40	40	40	40	40	60	70	50	60	[60]	60	60
29.	0	10	0	10	10	10	30	20	40	[50]	50	70	70
30.	40	20	20	30	20	30	—	—	-10	-20	-40	-40	-40
31.	40	50	50	10	40	10	-10	20	30	60	[60]	80	70
Means	44	46	39	40	37	40	54	63	67	65	71	66	70
Number of days	31	30	29	28	27	30	29	30	27	30	30	30	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
70	60	60	10	0	20	20	0	-60	-50	-90	13
40	30	30	10	40	60	10	70	40	0	10	16
170	150	90	50	90	120	70	120	90	120	120	89
50	50	50	30	20	30	40	30	30	30	20	40
60	40	30	60	40	60	50	50	80	80	70	68
100	110	90	90	110	120	120	130	130	100	80	81
60	50	50	40	30	70	40	60	60	50	60	70
110	100	100	90	100	150	90	-S	10	40	0	92
70	80	80	80	80	80	70	50	50	60	40	44
-10	-20	-10	-10	-10	-10	30	40	60	40	30	17
110	10	40	50	60	60	50	40	50	30	40	36
30	50	60	70	70	100	60	60	50	50	50	50
60	50	60	70	80	80	80	60	60	50	40	59
90	80	60	30	50	40	120	±S	±S	20	50	—
70	70	70	50	60	70	80	60	40	40	30	53
-20	-30	-30	-10	20	50	70	50	30	30	50	40
60	40	50	50	40	40	30	±S	±S	-S	20	—
30	0	0	0	-10	30	-10	-10	0	0	0	—
-10	80	70	30	80	110	130	120	110	110	100	—
90	80	80	70	50	50	70	90	100	140	120	94
90	50	30	60	90	110	70	70	60	70	80	105
80	80	70	40	60	70	60	60	30	40	30	65
110	80	50	40	50	50	20	10	40	40	50	67
80	70	80	70	80	70	80	60	70	70	70	—
80	40	10	50	80	70	60	80	80	100	100	—
60	60	130	90	90	50	±S	±S	-S	±S	20	—
100	90	90	120	120	120	100	100	80	70	60	85
60	70	60	40	30	30	40	40	30	10	-30	44
50	60	60	60	30	50	50	40	40	30	30	36
-40	-30	30	70	60	30	20	-20	-40	20	40	—
90	80	80	80	80	50	50	50	40	10	30	48
64	56	55	51	57	65	59	56	49	48	43	
31	31	31	31	31	31	30	27	28	29	31	

April

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	20	20	-20	10	40	20	30	40	[50]	80	80	100	100
2.	60	50	50	60	60	60	50	80	100	[80]	[100]	90	100
3.	10	10	10	20	40	40	40	40	[40]	50	50	60	60
4.	40	20	0	10	20	-10	0	10	[30]	50	60	50	50
5.	20	20	10	20	20	10	10	0	30	[40]	40	60	60
6.	30	40	10	10	-10	-50	—	—	50	70	60	70	70
7.	40	30	0	10	-20	-20	20	[60]	80	90	100	90	90
8.	30	20	30	50	50	50	60	80	[70]	80	90	100	110
9.	—	—	—	—	—	—	—	30	[20]	20	60	60	80
10.	40	50	50	40	40	50	80	90	80	[100]	100	100	100
11.	20	20	20	0	0	30	[70]	70	80	90	100	80	60
12.	30	30	30	30	40	40	50	[50]	60	50	50	50	50
13.	30	30	30	30	40	40	[60]	—	70	70	70	60	60
14.	—	—	—	—	—	—	—	70	[70]	70	70	70	80
15.	50	60	60	60	70	100	100	110	110	[100]	100	100	110
16.	30	20	30	20	30	30	40	10	10	[20]	30	20	10
17.	30	10	-40	-30	-40	-50	10	70	90	80	[70]	60	60
18.	30	10	-10	0	-30	-10	-40	[-50]	-40	-20	-10	40	50
19.	30	-30	10	-30	20	30	0	20	50	40	40	40	50
20.	40	40	20	40	40	40	50	[50]	60	50	50	50	50
21.	60	40	10	20	0	-20	[-70]	—	40	50	50	60	60
22.	20	20	20	10	20	30	80	70	60	60	[70]	60	60
23.	40	50	30	30	30	30	30	70	70	70	[50]	60	70
24.	10	30	30	30	-30	-30	-40	-20	±S	±S	±S	+S	+S
25.	10	+S	+S	+S	+S	+S	+S	200	70	30	30	30	30
26.	10	-10	20	30	30	10	60	70	60	[80]	50	60	80
27.	30	30	30	30	10	30	+S	—	70	30	30	30	30
28.	40	30	30	30	-30	+S	—	—	—	±S	±S	±S	30
29.	40	30	30	40	30	30	30	30	+S	[70]	30	30	70
30.	30	30	40	30	30	30	20	30	30	[30]	40	30	40
Means	31	26	20	22	19	20	31	51	56	58	59	61	64
Number of days	28	27	27	27	27	26	24	25	27	28	28	28	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
90	70	80	90	80	120	100	90	70	60	60	62
120	120	130	120	120	80	80	40	20	10	20	75
70	70	50	50	60	70	60	50	50	50	40	45
60	50	50	60	40	40	40	40	30	30	30	33
60	70	60	70	80	80	60	40	50	30	-10	39
70	80	90	80	70	60	60	40	0	10	30	—
80	90	90	80	70	60	50	40	40	20	20	50
90	80	90	80	70	50	40	40	40	—	—	—
90	70	70	30	0	0	+S	±S	-20	30	40	—
110	100	90	70	70	70	60	40	40	40	10	68
60	50	50	30	30	30	30	20	20	20	30	42
50	50	50	50	60	50	40	40	40	40	40	45
80	70	60	50	50	—	—	—	—	—	—	—
70	70	70	70	70	80	70	60	90	120	70	—
110	90	80	80	70	60	50	40	40	40	40	76
10	30	30	20	10	-10	40	60	50	40	50	26
50	70	70	80	90	70	70	110	150	80	50	50
40	30	30	20	40	30	50	40	40	20	20	12
50	40	50	30	20	50	50	50	50	50	40	31
50	40	40	30	20	20	10	30	30	-10	+S	37
40	40	30	30	30	30	30	30	20	30	20	27
50	60	50	60	40	50	50	50	50	50	40	47
80	90	70	70	60	40	20	20	30	30	30	49
+S	+S	100	100	80	80	10	+S	+S	+S	+S	—
50	60	50	50	30	30	20	30	10	20	70	—
70	30	30	30	30	30	40	40	40	40	30	40
-S	±S	+S	30	20	10	+S	+S	30	+S	30	—
60	50	70	70	70	-S	20	40	40	40	40	—
30	60	60	60	60	60	60	70	40	30	30	44
50	40	-40	10	30	-30	40	70	30	40	40	29
66	63	60	57	52	47	46	47	40	37	35	
28	28	29	30	30	28	27	26	26	26	26	

													May
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1	10	30	0	20	—30	30	30	[10]	20	30	10	—30	—10
2.	100	80	80	90	80	80	70	[100]	110	80	80	90	90
3.	40	40	50	40	40	40	60	40	20	[40]	50	50	50
4.	40	40	30	40	50	70	[40]	—	10	10	—10	—40	20
5.	20	20	20	10	20	40	50	[30]	30	20	20	30	40
6.	20	20	20	20	10	20	20	20	20	[30]	30	20	30
7.	30	30	20	20	20	30	60	70	80	90	[80]	80	100
8.	40	30	20	20	30	—	—	—	—	—	—	—	70
9.	20	20	20	20	30	20	30	40	40	[50]	40	(20)	20
10	20	20	20	20	30	40	30	50	[60]	40	40	30	30
11.	20	30	20	30	30	50	50	—	50	40	40	40	40
12.	30	50	20	40	50	80	80	120	110	[60]	50	40	30
13.	40	40	30	40	50	70	60	80	90	[70]	60	40	50
14.	30	20	20	40	40	40	50	50	70	[80]	90	70	±S
15.	30	30	20	20	30	50	110	[90]	50	50	30	±S	±S
16.	40	40	40	40	30	40	20	30	[40]	—40	40	—S	±S
17.	30	40	40	40	50	30	40	40	40	[30]	30	20	10
18.	20	30	30	30	40	60	(70)	—	[90]	80	80	80	70
19.	30	30	20	20	30	40	40	40	40	[40]	40	40	40
20.	10	20	30	20	10	40	40	50	50	[50]	50	40	40
21.	50	50	40	40	40	60	40	40	30	[20]	10	20	20
22.	10	10	10	0	10	20	20	20	30	[30]	30	30	20
23.	—30	10	80	70	40	30	40	20	[10]	30	40	20	10
24.	0	10	10	10	10	10	20	20	[20]	20	20	40	30
25.	30	20	10	20	20	40	50	—	(30)	20	20	10	0
26.	10	10	10	10	0	—10	10	20	[20]	20	20	20	20
27.	10	—10	—30	—10	10	20	30	30	40	[40]	30	—10	20
28.	40	40	40	40	30	50	50	—60	—160	—10	—20	40	50
29.	10	10	10	20	30	30	70	[80]	60	50	40	40	40
30.	20	20	20	40	40	50	[50]	50	40	40	30	30	—S
31.	—	—	—	—	—	20	[60]	90	70	40	20	20	20
Means	26	28	25	29	29	40	46	45	41	38	36	32	35
Number of days	30	30	30	30	30	30	29	26	29	30	30	27	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
90	80	80	50	±S	—40	70	100	100	100	100	37
70	70	90	70	50	60	50	50	70	70	60	77
60	60	70	60	60	40	50	60	50	50	50	49
—20	—80	20	70	60	20	70	60	50	60	50	29
50	60	40	40	40	40	30	30	20	20	20	31
30	30	40	50	50	70	70	50	50	50	40	34
90	90	100	100	90	110	100	90	70	60	40	69
70	70	50	30	30	40	30	20	20	20	20	—
20	30	20	20	20	20	20	20	20	20	20	25
30	30	30	30	30	30	30	30	30	20	20	31
20	±S	±S	30	±S	±S	±S	30	50	50	50	—
30	30	30	40	50	70	60	50	50	40	40	52
50	50	50	40	50	50	50	50	40	40	40	51
±S	±S	±S	—70	+S	±S	20	20	20	30	40	—
±S	±S	±S	30	40	40	40	40	50	30	30	—
±S	60	70	—S	—S	±S	±S	±S	50	50	40	—
30	30	—S	±S	+S	10	10	—50	30	20	20	—
60	50	50	50	50	40	40	30	40	30	30	—
30	30	—S	—S	20	30	30	20	20	10	10	—
40	20	30	40	40	40	40	30	30	40	40	35
30	30	20	20	10	10	10	10	0	10	10	26
20	30	30	20	20	30	20	20	10	10	—10	18
10	20	30	30	30	30	40	30	10	0	0	25
30	30	40	40	40	20	20	20	30	80	20	25
—10	—10	0	20	30	30	30	30	30	40	30	—
20	30	30	30	30	40	40	50	40	30	30	22
10	20	40	40	40	40	50	60	60	60	50	27
50	40	20	10	10	20	20	10	10	10	10	14
40	40	30	20	20	40	(40)	30	30	30	30	35
—	—	—	—	—	—	—	—	—	—	—	—
20	30	40	40	40	40	40	30	30	30	20	—
36	36	42	35	38	35	40	35	37	37	32	
27	27	25	27	25	27	27	29	30	30	30	

June													
Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	20	30	30	20	30	40	40	—	[30]	20	30	20	20
2.	20	20	10	10	20	—	—	—	—	—	—	—	—
3.	40	40	30	40	50	—	—	—	—	—	—	—	—
4.	50	50	40	50	60	—	—	—	—	—	—	—	—
5.	50	40	50	40	40	50	50	50	40	[50]	50	40	30
6.	±S	30	30	20	20	20	20	[30]	30	40	30	50	60
7.	30	30	40	40	30	50	40	[40]	50	60	60	70	60
8.	30	10	10	20	30	60	80	—	—	60	40	40	—
9.	—10	0	20	10	—10	0	20	[40]	[30]	20	30	30	20
10.	30	40	30	60	40	40	50	[50]	30	40	+S	±S	100
11.	30	20	20	20	40	80	70	80	90	90	90	80	80
12.	60	60	60	60	70	80	[80]	80	80	70	50	40	30
13.	50	70	30	10	20	80	80	70	[80]	80	60	80	80
14.	50	40	50	40	30	40	50	70	[80]	70	70	60	60
15.	50	30	30	50	60	60	50	—	50	60	80	90	120
16.	30	30	30	20	40	±S	+S	50	±S	+S	50	±S	±S
17.	50	50	40	40	40	50	70	70	60	40	40	40	40
18.	±S	±S	±S	±S	±S	±S	±S	50	100	50	40	60	—60
19.	—60	—10	—10	—10	0	20	40	40	[40]	50	—20	20	30
20.	50	50	50	50	50	60	60	60	[50]	60	50	40	50
21.	40	40	40	40	50	60	120	70	[50]	40	±S	±S	±S
22.	10	10	20	30	40	40	(30)	—	30	40	50	60	60
23.	20	20	20	10	10	20	30	30	[50]	60	30	10	0
24.	±S	±S	±S	±S	120	40	30	30	30	[30]	+S	+S	80
25.	30	20	20	10	20	30	30	[30]	30	30	30	30	30
26.	—	—	—	10	30	40	40	50	[50]	40	30	—30	±S
27.	70	70	70	40	30	80	160	150	[130]	80	50	60	40
28.	30	40	30	30	30	50	40	[30]	40	30	30	30	40
29.	70	50	50	50	50	50	60	—	—	50	40	40	50
30.	80	60	50	50	40	50	50	[50]	50	60	60	60	70
Means	35	35	33	31	37	48	57	55	54	51	45	44	47
Number of days	26	27	27	28	29	25	24	22	24	26	24	23	23

13	14	15	16	17	18	19	20	21	22	23	Daily means
—	—	—	—	—	—	—	40	30	30	20	—
—	40	40	40	50	50	50	50	50	50	40	—
—	—	50	50	50	50	50	50	50	50	50	—
—	50	50	40	40	50	50	50	50	40	50	—
10	20	30	40	40	50	50	—S	±S	—S	—S	—
60	60	70	70	60	50	50	30	30	40	40	41
±S	±S	70	40	50	40	40	40	30	30	20	—
60	—S	±S	50	20	10	70	20	—20	—30	—10	—
40	40	40	40	40	40	30	30	40	50	40	26
60	30	70	40	60	60	70	60	40	30	30	—
[80]	90	80	80	90	100	70	50	50	40	40	65
30	40	40	40	50	70	60	70	50	70	50	58
80	80	90	110	140	160	180	130	110	70	40	83
50	50	50	40	40	40	30	30	30	30	40	48
100	60	60	60	+S	50	50	50	30	20	30	56
40	50	50	50	40	110	140	140	50	50	40	—
30	20	±S	±S	±S	±S	±S	±S	±S	±S	±S	—
60	±S	±S	0	(—90)	—130	—100	10	0	0	—40	—
30	30	10	0	0	30	40	50	50	50	40	19
50	40	±S	—S	50	50	50	40	50	50	40	—
±S	±S	±S	50	30	30	30	20	20	10	20	—
50	40	40	40	40	20	10	20	20	20	20	—
—30	—50	0	30	30	50	60	60	50	60	30	25
50	40	30	40	50	50	40	40	30	30	20	—
—S	±S	+S	0	40	70	50	40	—	—	—	—
±S	±S	±S	10	±S	60	40	70	+S	+S	90	—
40	30	30	30	30	30	30	30	30	30	30	57
40	40	50	50	50	60	70	80	80	80	80	47
40	30	30	40	40	50	50	40	60	70	100	—
60	70	80	30	30	20	40	70	90	80	80	58
47	41	48	41	46	47	50	50	42	40	38	
22	22	22	27	25	28	28	28	26	26	27	

July

Hcur GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	60	50	40	40	50	70	70	60	[60]	60	60	40	40
2.	40	50	40	40	50	60	[60]	[70]	60	70	70	50	50
3.	50	40	40	50	40	(50)	30	70	[70]	40	70	70	70
4.	40	-S	$\pm S$	+S	$\pm S$	50	60	[80]	70	50	50	40	50
5.	40	30	30	20	40	40	70	[80]	100	90	80	60	50
6.	20	20	30	30	40	50	—	[40]	50	50	50	50	40
7.	30	30	20	20	20	30	30	[30]	50	50	50	50	40
8.	30	30	30	30	30	30	40	[40]	50	50	70	50	50
9.	30	40	30	30	30	50	60	[80]	80	80	70	—	—
10.	0	0	-10	-10	-10	—	[60]	[70]	70	60	70	60	50
11.	30	30	30	30	30	(30)	[60]	90	80	80	90	100	90
12.	50	30	30	30	30	50	30	40	40	[40]	40	30	30
13.	10	10	20	10	10	(30)	—	(40)	50	50	50	50	40
14.	30	40	50	40	40	$\pm S$	-S	$\pm S$	-S	70	50	30	20
15.	50	40	40	40	50	[50]	60	70	70	70	50	50	50
16.	10	10	20	10	30	40	70	80	[80]	70	60	40	30
17.	50	40	40	40	40	50	30	20	[30]	0	-20	0	-50
18.	30	20	20	30	40	40	[50]	40	30	30	-10	-10	-20
19.	50	40	$\pm S$	+S	20	20	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	50	90
20.	30	20	10	0	30	50	50	—	30	30	20	10	10
21.	20	-10	-10	30	30	30	30	20	30	[—S]	-S	+S	(50)
22.	20	20	20	30	20	—	—	—	—	—	—	—	—
23.	40	30	40	40	50	50	60	[50]	20	-40	0	10	(10)
24.	40	40	30	30	40	40	40	60	[60]	(70)	70	30	0
25.	10	10	$\pm S$	+S	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	30	20	80	60
26.	40	40	40	40	40	50	50	[50]	50	50	30	40	50
27.	40	40	30	20	30	50	50	—	—	30	30	40	40
28.	40	30	30	40	40	20	30	[60]	80	70	50	50	40
29.	30	30	30	30	30	30	40	50	[60]	40	60	40	50
30.	10	10	20	20	30	40	40	40	[60]	70	60	40	40
31.	10	10	20	-10	30	30	[40]	60	80	100	110	100	100
Means	32	27	27	27	33	43	48	56	58	51	50	45	41
Number of days	31	30	28	28	29	24	25	24	26	27	28	28	27

MAGYAR
 TUDOMÁNYOS AKADEMIA
 KÖNYVTÁRA

13	14	15	16	17	18	19	20	21	22	23	Daily means
30	40	40	40	40	40	40	40	40	40	40	47
50	60	50	50	40	40	40	50	50	40	50	51
80	60	50	50	50	50	50	70	50	40	40	54
50	60	50	60	60	50	60	50	50	40	40	—
50	50	70	70	70	70	60	60	50	40	30	56
40	40	40	50	50	60	60	30	30	30	30	40
50	50	60	60	70	60	50	40	30	30	30	41
60	50	50	50	60	70	50	70	50	30	30	46
—	—	40	50	40	20	—10	0	—10	0	10	—
40	50	50	70	60	40	40	30	40	30	30	39
70	60	40	30	30	30	30	30	30	30	30	50
30	30	30	30	30	30	30	30	30	30	20	33
50	50	50	40	50	50	50	40	40	50	40	—
30	40	30	20	40	40	50	60	70	50	50	—
50	40	50	50	50	30	40	30	30	10	10	45
40	30	30	30	40	50	50	50	50	50	40	42
—20	—40	—60	0	20	20	40	40	40	30	30	15
0	10	30	—S	±S	50	50	50	50	50	50	—
50	50	30	±S	±S	±S	20	10	20	20	30	—
10	10	10	20	30	30	30	40	50	40	40	26
50	40	20	20	10	40	40	40	40	30	20	—
—	30	40	+S	±S	+S	0	50	30	40	40	—
—20	0	20	30	30	40	40	40	40	40	40	28
—10	—10	10	20	20	20	30	30	±S	+S	30	—
50	40	40	40	40	40	40	50	50	40	40	—
50	50	40	40	40	40	50	50	60	50	50	45
30	30	30	50	60	50	40	30	30	30	40	—
30	20	20	30	20	40	40	30	30	30	20	37
30	20	30	20	30	30	20	30	30	20	20	33
40	30	20	30	30	40	30	30	30	20	20	33
30	60	40	30	30	40	30	30	40	30	50	48
38	35	34	39	41	42	38	40	39	34	34	
29	30	31	28	28	29	31	31	30	30	31	

August

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	40	50	50	50	40	70	[70]	50	40	30	30	30	30
2.	30	30	30	30	30	30	30	50	[60]	60	30	30	40
3.	40	30	30	50	60	30	—	—	70	60	70	60	60
4.	30	10	10	20	40	120	130	130	[90]	60	80	80	70
5.	30	40	40	40	40	50	50	50	[50]	40	30	40	40
6.	40	30	30	40	40	50	50	50	[80]	90	80	50	50
7.	30	50	40	30	30	40	40	[30]	40	40	20	20	20
8.	20	10	10	10	20	20	30	30	[40]	40	20	40	40
9.	30	20	20	20	20	40	30	40	[50]	60	60	50	50
10.	—	—	—	—	—	—	—	—	—	80	50	60	50
11.	50	50	50	50	50	50	[70]	70	80	90	80	90	100
12.	30	40	50	50	[50]	50	50	50	60	60	60	50	40
13.	70	50	50	50	50	70	[70]	[90]	90	80	70	70	70
14.	40	30	30	40	50	50	[50]	60	70	80	80	90	90
15.	40	30	40	40	30	30	[40]	40	50	50	50	50	60
16.	20	20	20	20	30	[30]	[50]	30	30	20	30	40	40
17.	—	—	—	—	—	—	—	40	70	40	70	50	40
18.	50	40	50	50	60	70	80	[90]	110	110	90	90	80
19.	40	40	40	40	50	50	[40]	—	—	—	—	60	50
20.	30	20	40	40	50	40	40	50	40	[50]	40	40	40
21.	50	40	30	20	10	0	$\pm S$	$[\pm S]$	—70	10	20	70	40
22.	30	30	30	40	40	50	70	[80]	80	70	70	70	70
23.	50	20	—S	$\pm S$	$\pm S$	—S	—S	30	[10]	$\pm S$	$\pm S$	40	60
24.	20	20	20	30	30	40	—	—	60	30	40	40	60
25.	30	40	40	40	50	40	60	70	70	[80]	70	50	40
26.	50	40	30	40	50	60	70	[70]	60	60	70	60	40
27.	20	20	20	20	20	20	20	20	[20]	20	$\pm S$	70	70
28.	30	40	—S	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	120	[70]	70
29.	20	20	20	20	20	30	50	[40]	[40]	40	30	50	70
30.	20	20	10	20	20	20	20	40	[30]	60	60	70	70
31.	20	20	20	20	30	30	20	—	—	50	50	50	50
Means	34	31	31	34	37	44	51	54	54	56	56	56	55

Number
of days

29	29	27	27	27	27	27	24	24	27	28	28	31	31
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13	14	15	16	17	18	19	20	21	22	23	Daily means
40	+S	±S	±S	±S	±S	30	30	30	0	20	—
40	40	40	40	40	40	30	40	40	30	30	37
±S	±S	±S	±S	±S	±S	±S	±S	±S	40	40	—
50	50	30	30	30	40	50	70	70	50	40	58
30	40	40	40	40	40	50	50	50	40	40	42
40	40	40	40	30	40	30	40	30	30	30	45
20	30	20	10	20	30	40	40	30	30	20	30
10	40	40	40	40	50	50	40	40	40	40	32
50	80	—	—	—	—	—	—	—	—	—	—
50	40	40	50	50	50	50	50	50	50	50	—
110	70	—S	30	50	40	40	40	40	50	70	62
40	60	50	50	50	60	50	60	60	50	70	52
60	60	50	50	50	40	40	40	40	50	50	59
80	80	70	50	40	40	40	30	40	40	40	55
60	50	50	50	40	30	20	20	30	20	20	39
40	40	30	20	30	40	40	40	50	50	(40)	33
30	40	40	30	10	20	30	30	40	40	50	—
90	80	70	60	50	50	40	40	50	50	40	66
50	40	40	40	40	40	40	40	30	30	30	—
50	40	30	40	40	40	30	20	30	40	40	38
60	50	10	20	30	30	20	40	40	40	30	—
50	50	50	50	50	50	50	50	50	—20	60	51
70	40	50	50	50	50	50	50	40	40	30	—
±S	±S	+S	30	+S	20	30	40	50	30	30	—
60	40	20	20	20	20	30	20	20	20	40	41
30	20	30	20	30	30	20	20	30	20	20	40
40	±S	60	40	20	20	20	60	50	60	60	35
70	50	40	40	30	30	30	20	20	20	20	—
30	50	70	50	50	50	40	50	40	30	30	39
70	70	70	70	70	40	40	50	50	40	20	45
50	50	40	40	40	70	80	90	100	120	130	—
51	50	43	39	39	39	38	42	43	38	41	
29	27	26	28	27	28	29	29	29	30	29	

September

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	110	70	60	50	60	80	[100]	50	60	10	—S	—40	120
2.	50	50	40	50	80	90	130	[180]	180	+S	150	130	100
3.	40	30	40	40	40	60	70	70	[80]	90	80	90	80
4.	40	40	50	50	50	60	80	90	[70]	70	100	90	80
5.	10	30	40	40	40	50	80	[80]	70	80	90	100	80
6.	50	50	40	40	50	50	60	60	80	[80]	80	90	100
7.	20	20	30	40	50	40	—	—	50	50	50	50	40
8.	40	40	40	40	50	50	50	60	[50]	50	50	50	40
9.	30	30	20	30	20	40	50	50	50	[50]	40	40	40
10.	30	40	30	10	40	40	—40	—50	—70	—	30	40	70
11.	60	40	50	60	40	50	50	[70]	60	70	70	50	50
12.	20	10	20	40	40	60	50	[50]	50	50	50	70	80
13.	40	40	40	40	50	50	60	50	[50]	50	50	50	50
14.	80	+S	20	—10	+S	20	10	0	—	110	110	110	90
15.	50	40	50	40	50	50	50	60	—	—	60	40	30
16.	30	20	30	30	30	30	60	80	[90]	100	100	30	30
17.	±S	±S	±S	±S	±S	100	±S	100	[+S]	110	150	100	80
18.	30	30	30	40	80	100	70	40	[30]	30	30	40	40
19.	100	80	120	110	30	30	[10]	60	90	60	50	70	70
20.	30	30	40	40	60	[90]	[170]	150	110	70	60	60	60
21.	40	50	40	50	50	40	(40)	—	50	50	50	50	50
22.	70	110	70	50	100	80	120	[60]	50	50	50	50	50
23.	50	40	30	40	50	50	50	[60]	80	70	50	40	40
24.	—20	10	30	20	30	40	110	—	[160]	150	140	120	90
25.	±S	±S	+S	10	0	—10	0	[40]	50	50	40	40	50
26.	170	160	120	200	150	70	120	60	70	60	[60]	60	50
27.	50	50	50	40	40	50	50	[60]	60	60	70	60	60
28.	50	50	40	40	40	50	50	60	—	[50]	50	60	50
29.	50	30	40	50	30	10	10	[50]	70	(+S)	(60)	70	70
30.	30	40	30	—50	10	—10	10	0	20	50	[30]	20	0
Means	48	46	44	42	49	50	60	61	66	66	69	61	61
Number of days	28	27	28	29	28	30	27	27	26	26	28	30	30

13	14	15	16	17	18	19	20	21	22	23	Daily means
70	30	40	40	-90	±S	40	20	50	50	40	46
100	80	70	70	60	50	50	50	40	50	50	83
80	100	90	110	100	50	50	50	50	—	—	—
80	90	70	—	—	70	90	80	70	40	30	—
90	80	80	70	60	80	80	70	60	50	60	65
80	80	90	60	50	50	50	40	40	40	40	60
40	50	50	50	50	50	50	50	50	50	50	—
40	40	40	40	50	50	50	50	50	40	30	45
50	50	50	50	40	20	40	40	40	30	30	39
50	50	40	30	40	50	70	120	80	70	140	40
40	40	30	40	40	40	40	40	30	30	20	46
80	80	100	70	60	70	50	50	50	50	40	54
60	70	60	50	50	50	30	+S	±S	60	50	—
70	50	60	60	70	60	60	70	50	50	50	—
40	30	40	40	40	30	60	50	30	30	30	—
30	20	40	70	20	±S	-S	30	30	20	-S	—
70	60	30	30	30	30	30	60	40	30	30	—
30	40	40	40	50	60	60	70	80	70	80	50
100	30	40	60	70	80	80	60	90	60	30	66
60	60	40	60	60	60	50	60	60	40	30	65
50	60	50	50	50	60	60	60	60	60	50	—
40	40	50	50	40	30	40	50	60	50	50	59
30	60	20	-20	±S	±S	±S	30	±S	-40	-10	—
70	50	50	50	40	40	30	30	30	-100	±S	53
+S	—	—	30	60	50	70	50	70	70	90	—
60	60	60	50	50	50	50	40	30	40	50	79
60	60	60	60	60	50	50	50	50	50	50	54
±S	-S	30	30	±S	±S	±S	±S	+S	40	50	—
80	70	60	50	50	60	60	40	30	30	20	—
40	50	50	40	60	60	70	60	60	50	50	32
60	56	53	50	47	52	54	53	51	38	46	
28	28	29	29	27	26	27	28	27	29	27	

October

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	50	50	60	10	30	40	40	[50]	[50]	30	50	50	50
2.	40	20	0	-10	30	0	20	30	20	30	—	40	50
3.	0	-70	-30	-40	-30	-20	10	70	150	[80]	50	70	60
4.	50	50	60	60	50	50	70	100	70	[80]	80	60	50
5.	50	50	60	60	50	40	110	—	—	—	—	80	70
6.	80	60	40	40	60	40	40	90	60	80	[70]	70	80
7.	0	0	0	0	0	10	40	130	80	[70]	60	80	80
8.	60	50	40	40	60	70	80	120	[100]	90	80	60	40
9.	50	40	70	80	80	60	70	90	[80]	[70]	70	80	50
10.	0	30	10	40	60	70	70	60	[80]	50	10	-20	0
11.	-10	10	30	20	40	40	0	-10	[40]	70	50	40	$\pm S$
12.	70	50	30	40	50	40	60	—	—	60	60	60	70
13.	60	50	70	70	70	50	50	50	40	30	[40]	$\pm S$	30
14.	40	30	40	30	30	40	70	70	[70]	50	50	40	50
15.	40	40	40	40	40	50	60	80	90	80	[60]	50	50
16.	10	30	40	40	40	60	70	80	80	70	80	[80]	80
17.	10	10	-10	-10	-10	0	0	0	-10	10	[20]	30	30
18.	20	-10	0	0	0	-40	-60	-50	10	[30]	50	50	30
19.	30	30	40	10	0	20	40	—	—	70	60	50	70
20.	30	30	20	40	40	40	—	—	—	40	50	60	60
21.	30	40	60	70	70	70	90	80	40	10	30	[50]	[40]
22.	30	80	30	-30	20	30	30	10	20	20	70	80	60
23.	50	70	50	60	70	110	110	120	110	[70]	60	60	60
24.	20	50	40	10	20	30	40	40	[40]	20	30	60	60
25.	-20	30	60	40	60	40	60	60	60	70	[70]	50	50
26.	20	10	30	30	30	40	40	—	—	[40]	50	60	70
27.	80	70	60	70	50	50	60	40	50	70	40	50	50
28.	20	$\pm S$	$\pm S$	$\pm S$	50	30	50	60	80	80	[70]	100	110
29.	50	50	50	40	40	50	80	100	80	[50]	[60]	50	50
30.	60	60	110	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	100	90	80	[60]
31.	30	50	60	40	20	30	40	50	50	[50]	[70]	90	80
Means	34	35	39	31	37	38	50	61	62	56	56	59	56
Number of days	31	30	30	29	30	30	29	25	25	30	29	30	30

13	14	15	16	17	18	19	20	21	22	23	Daily means
50	70	60	70	80	70	70	70	80	70	20	53
40	40	20	30	50	30	30	30	40	30	20	27
40	30	20	30	10	10	20	10	10	40	50	24
60	50	60	50	70	70	60	50	50	50	60	61
80	80	60	70	80	90	40	40	70	80	80	—
60	70	80	70	60	40	40	80	110	90	100	67
70	40	60	30	$\pm S$	-50	80	60	50	60	50	44
40	50	40	30	40	50	50	70	30	20	40	56
70	60	60	40	30	20	20	60	30	0	-20	53
-50	-10	0	-10	-30	-20	-20	-40	-10	10	-10	11
$\pm S$	$\pm S$	$\pm S$	-S	90	80	60	60	60	70	60	—
40	70	40	40	40	30	50	70	50	60	60	—
30	50	70	80	70	70	80	60	50	40	50	55
40	40	30	30	40	50	80	50	40	50	60	47
70	80	90	30	(70)	60	90	100	50	50	30	62
80	70	90	70	70	60	60	40	10	20	20	56
40	40	40	40	60	40	60	70	30	40	30	23
40	60	70	30	80	70	60	80	20	0	30	24
80	80	80	130	140	90	60	40	40	30	30	—
60	50	10	10	10	20	50	60	60	40	50	—
40	50	50	40	40	40	30	30	40	50	40	47
40	+S	60	+S	$\pm S$	$\pm S$	30	30	60	60	60	—
80	80	120	110	140	140	150	90	80	110	80	—
70	80	80	60	40	50	50	-60	-70	10	30	33
50	50	50	30	20	40	30	50	30	20	30	43
70	60	60	70	70	70	60	70	80	90	110	—
20	10	10	40	60	80	$\pm S$	$\pm S$	20	50	40	—
90	70	80	120	120	150	120	110	90	110	70	—
50	50	40	30	40	60	50	50	50	100	80	56
50	50	40	40	40	50	50	50	50	60	40	—
70	70	90	120	+S	120	120	90	50	60	40	65
52	55	55	54	58	56	58	52	44	51	46	
30	29	30	29	27	30	30	30	31	31	31	

November

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	40	50	50	+S	30	30	+S	60	[110]	110	90	70	70
2.	$\pm$ S	40	30	50	50	50	50	50	50	50	20	[50]	—
3.	20	20	30	30	—100	50	100	110	140	70	30	[20]	50
4.	40	50	50	50	50	60	60	90	60	40	[40]	50	50
5.	40	20	40	50	40	30	30	40	30	30	[50]	50	50
6.	60	50	50	50	40	40	40	60	[70]	70	50	10	—10
7.	30	20	$\pm$ S	$\pm$ S	$\pm$ S	—30	70	$\pm$ S	—S	—	50	$\pm$ S	$\pm$ S
8.	60	50	50	40	40	50	70	80	90	[80]	100	100	90
9.	50	50	40	40	40	40	50	40	—	30	20	20	40
10.	40	40	20	—10	10	50	40	30	40	40	50	50	[30]
11.	60	70	20	0	30	50	70	60	70	80	90	90	[90]
12.	140	+S	+S	+S	60	60	100	110	30	30	50	[60]	50
13.	70	70	50	60	50	50	60	20	40	70	80	80	70
14.	+S	50	50	50	60	60	60	70	+S	$\pm$ S	[20]	50	70
15.	30	20	30	60	60	50	50	70	100	100	70	60	[60]
16.	—40	—50	—40	—50	—30	—30	—40	—20	—	[10]	10	10	30
17.	20	40	50	40	60	60	60	80	70	60	50	[80]	[120]
18.	60	100	90	120	150	120	140	80	80	90	20	90	[140]
19.	120	160	140	90	80	80	100	80	+S	20	80	80	—20
20.	150	120	+S	140	180	230	+S	+S	180	[120]	[80]	60	60
21.	—	—	—	—	—	—	—	—	—	—	—	—	—
22.	—	—	—	—	—	—	—	—	—	—	—	—	—
23.	—	—	—	—	—	—	—	—	—	140	140	170	150
24.	140	170	140	150	130	90	80	60	90	130	140	130	[150]
25.	40	40	30	40	40	$\pm$ S	$\pm$ S	90	100	90	90	[90]	110
26.	70	60	60	70	80	90	100	100	110	100	90	90	90
27.	30	40	30	—50	60	60	140	140	170	70	[—50]	—70	—10
28.	—110	—140	+S	$\pm$ S	$\pm$ S	—40	—10	20	70	[180]	150	20	130
29.	180	90	60	+S	—10	40	80	90	80	40	40	60	[90]
30.	90	60	80	40	30	60	80	[80]	—	$\pm$ S	70	+S	80
Means	54	50	50	48	49	54	66	68	85	74	61	60	70

Number
of days

25 26 23 22 25 26 24 25 21 25 28 26 26

13	14	15	16	17	18	19	20	21	22	23	Daily means
40	50	30	50	50	50	60	80	+S	100	±S	—
90	110	90	80	70	70	80	30	+S	10	20	—
70	60	50	60	80	110	100	70	70	60	40	56
50	60	70	50	70	80	80	100	90	70	60	61
30	20	10	20	30	80	110	140	120	60	70	50
10	20	40	50	±S	30	50	70	40	40	50	43
50	±S	50	60	70	110	110	160	70	60	60	—
80	80	80	60	60	60	30	30	50	40	40	63
30	±S	±S	±S	±S	70	0	20	40	40	40	—
40	50	50	50	50	50	50	50	50	50	50	40
110	100	110	160	110	130	130	120	90	90	100	85
40	60	80	90	100	110	70	60	70	70	50	—
60	50	40	50	+S	30	40	40	30	10	+S	—
80	70	60	70	+S	0	40	60	70	70	50	—
20	-20	-10	10	20	20	0	0	-10	-20	-30	31
20	-20	-10	-20	-20	-40	-10	-10	20	30	30	-12
140	120	90	90	+S	150	160	150	80	70	70	83
90	110	140	150	180	230	150	150	250	140	120	125
30	80	110	150	230	310	290	230	150	160	180	127
50	30	20	20	20	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
140	130	90	80	90	130	130	120	120	140	160	—
130	120	100	80	60	60	40	40	+S	±S	60	—
90	110	100	120	90	90	90	80	90	80	80	—
40	30	90	60	20	0	80	80	200	130	40	78
20	80	100	130	130	140	140	110	90	100	60	69
140	120	150	150	140	140	150	130	60	70	90	—
[90]	90	80	90	90	100	100	110	120	100	90	79
70	80	80	50	30	80	70	50	20	50	10	—
66	69	70	74	77	89	87	82	83	70	64	
28	26	27	27	23	27	27	27	24	26	25	

December

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	0	-10	0	0	-10	-90	30	80	70	50	0	20	[30]
2.	80	90	70	60	60	70	60	70	60	60	50	[50]	40
3.	0	-20	-10	30	-10	-30	-10	0	-10	20	[-40]	10	10
4.	50	50	50	50	40	50	50	50	50	60	[70]	40	50
5.	40	30	30	50	$\pm S$	$\pm S$	60	50	$\pm S$	70	50	50	$\pm S$
6.	$\pm S$	60	0	20	0	30	20	30	70	[70]	50	50	70
7.	50	70	60	50	60	70	70	80	—	80	40	70	60
8.	10	-20	-10	60	70	90	70	60	150	130	90	100	[110]
9.	+S	50	-20	70	40	70	80	90	100	100	150	120	[170]
10.	130	90	-50	-20	-10	-30	-70	-50	20	40	[90]	90	100
11.	-20	10	40	-10	-50	-30	-40	[-50]	[-10]	-40	-30	-40	-50
12.	30	60	80	80	70	50	+S	+S	80	90	130	90	[30]
13.	100	90	90	90	80	80	80	120	110	110	[100]	80	90
14.	30	60	30	-10	-50	-10	-40	[-40]	—	10	40	70	80
15.	40	50	70	60	70	80	80	[80]	70	50	70	60	70
16.	50	30	50	120	50	50	50	50	$\pm S$	30	[-10]	0	40
17.	-20	-30	10	40	50	60	40	40	50	70	[80]	110	80
18.	-20	10	10	0	10	-10	-30	-20	[-70]	-50	-30	-20	20
19.	70	+S	$\pm S$	-S	$\pm S$	$\pm S$	+S	30	-50	-10	[-20]	$\pm S$	$\pm S$
20.	-50	-70	-50	-30	-20	0	0	-20	-10	[-10]	-40	0	50
21.	50	60	70	60	70	30	-50	(-50)	—	—	-60	-60	-40
22.	-20	10	-20	-50	-80	10	20	0	[-50]	0	10	70	30
23.	70	50	90	40	10	10	-80	$\pm S$	$\pm S$	$\pm S$	$\pm S$	+S	80
24.	-10	20	0	-10	-10	10	10	-50	-70	-50	[-80]	-50	-20
25.	+S	90	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	—	—	—	—	—	70
26.	30	20	10	20	10	20	30	30	40	30	30	40	50
27.	70	60	80	60	70	60	40	60	60	110	[80]	90	70
28.	-70	-80	-50	-80	-50	-50	-50	(-30)	—	-90	-90	-90	-130
29.	-70	-60	-100	-80	-40	-50	-50	-70	-70	-60	-20	-50	-90
30.	70	40	70	70	80	80	90	100	110	120	150	130	[100]
31.	30	-20	-30	-10	-20	-10	10	-40	-50	[80]	120	80	100
Means	26	26	20	25	18	22	17	26	28	38	34	40	46
Number of days	28	30	29	29	28	28	28	26	23	28	29	28	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
50	30	50	70	90	110	100	100	90	90	90	43
40	50	50	30	0	-40	-60	-30	±S	±S	-30	—
20	10	0	10	30	40	20	30	10	-30	20	4
30	0	30	50	30	-10	20	40	60	40	0	40
±S	-50	40	30	50	-S	50	±S	+S	±S	10	—
50	50	30	60	30	10	50	50	50	60	30	41
70	50	40	80	90	80	40	40	30	20	10	57
70	60	50	70	80	80	80	60	70	60	-20	65
±S	±S	60	60	40	50	60	120	120	120	140	—
100	80	90	130	130	160	180	160	70	80	30	64
-50	-60	-60	-70	-90	-70	-40	-20	0	-10	50	-31
10	-40	-100	-30	40	70	80	90	100	100	110	—
90	90	120	140	140	150	130	120	120	100	70	104
110	70	110	130	130	70	70	60	130	130	70	54
70	80	80	80	110	180	+S	90	80	70	50	76
40	0	-50	-30	-30	-50	-50	-30	30	-30	-10	16
80	60	110	120	110	90	130	120	70	0	-10	61
30	30	-20	30	60	50	20	-40	-50	40	40	0
-S	±S	+S	-150	-90	-60	-90	-60	-50	-50	-60	—
40	80	80	80	90	100	130	110	90	50	50	27
-10	0	30	50	-30	-50	-60	-60	-100	50	20	—
80	100	110	80	70	90	100	80	70	40	70	36
110	130	140	130	70	30	40	30	80	60	-30	—
-20	-20	-80	-60	-60	-S	-S	30	30	70	+S	—
60	80	80	80	70	60	30	20	20	40	30	—
60	50	30	40	40	30	20	20	40	60	60	34
30	-20	-20	-10	10	0	-10	-50	-10	-30	-10	33
-70	-50	10	-50	-30	-40	-100	-60	-50	-70	-70	—
-30	10	0	0	-20	0	-10	-10	-30	10	20	-36
40	-20	-10	-10	0	-10	-30	-50	-30	30	30	48
190	190	140	150	160	120	90	150	180	100	-20	70
46	36	38	42	43	43	34	37	42	41	25	
28	29	30	31	31	29	29	30	29	29	30	

II. 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	+	5	2	17	2	0	0	0	0	0	0	4	3
	—	2	7	11	9	0	0	0	0	0	2	3	1
February	+	0	0	0	0	6	0	0	0	0	0	0	0
	—	0	0	0	0	11	0	0	0	0	0	0	0
March	+	0	0	0	1	15	0	0	0	0	0	0	0
	—	0	0	0	0	3	0	0	0	0	0	0	7
April	+	0	0	0	0	0	5	0	0	1	10	49	2
	—	0	0	0	0	0	0	0	0	0	8	50	1
May	+	0	0	0	0	0	0	0	0	0	0	0	1
	—	0	0	0	0	0	0	0	0	0	0	0	2
June	+	63	13	12	6	4	1	1	0	35	0	1	29
	—	31	31	4	6	9	1	0	0	14	0	0	7
July	+	0	0	3	9	0	77	122	158	44	12	10	3
	—	0	0	2	0	44	47	90	188	125	25	15	12
August	+	55	0	0	10	10	7	50	28	37	8	3	0
	—	11	0	6	18	4	19	90	39	12	5	4	0
September	+	27	66	10	3	21	0	0	0	0	0	0	0
	—	49	15	12	3	5	0	0	0	0	0	1	0
October	+	0	3	3	0	0	0	0	0	0	0	0	31
	—	0	0	3	0	0	0	0	0	0	0	0	2
November	+	0	0	4	45	3	1	1	9	0	2	0	9
	—	3	0	7	11	7	0	7	4	0	3	0	2
December	+	2	0	0	0	5	5	0	0	18	1	0	0
	—	2	0	0	0	17	4	0	0	1	0	0	0

charges transported by point-discharge for each month

12	13	14	15	16	17	18	19	20	21	22	23	Means
11	9	4	0	0	3	0	0	0	0	0	2	2.6
6	13	0	0	0	0	0	0	0	0	0	1	2.3
0	0	0	0	0	0	0	0	17	0	0	0	1.0
0	0	0	0	4	0	0	0	6	0	0	0	0.9
1	0	0	0	0	0	0	10	9	2	0	0	1.6
1	0	0	0	0	0	0	14	6	5	1	0	1.5
0	1	4	0	0	0	0	3	0	0	0	0	3.1
0	1	2	0	0	0	0	1	4	0	0	0	2.8
11	3	13	8	16	76	22	32	46	25	0	0	10.5
2	0	51	16	32	25	78	84	98	32	3	0	17.6
48	10	13	40	59	25	30	17	18	24	0	7	19.0
54	43	31	54	15	57	37	31	31	63	50	32	25.0
0	0	0	0	61	68	9	0	0	0	10	0	24.4
0	0	0	0	25	83	0	0	0	0	0	0	27.3
0	23	21	34	124	76	30	2	7	3	0	0	22.0
0	45	53	33	1	16	21	37	27	0	0	0	18.4
0	13	1	0	0	19	12	31	32	10	43	46	13.9
0	1	0	0	0	23	16	16	27	68	34	6	11.5
2	19	19	36	3	3	6	9	1	0	0	0	5.6
1	15	10	25	2	1	13	13	0	0	0	0	3.5
16	0	1	1	0	5	0	0	0	14	1	0	4.7
1	0	3	1	0	0	0	0	0	6	5	0	2.5
3	5	0	0	0	0	0	0	2	1	1	0	1.8
1	1	0	0	0	0	0	0	1	0	2	0	1.2