

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 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 presetted 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.

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.	90	100	60	50	40	50	80	60	[70]	70	90	90	90
2.	50	60	40	50	60	70	90	—	—	130	130	120	80
3.	-40	-40	-70	-60	-70	-60	-40	-30	-40	-40	-50	[-10]	0
4.	60	60	40	50	50	50	60	100	120	140	[120]	110	120
5.	110	90	130	110	110	130	120	70	120	110	[120]	90	60
6.	60	20	80	120	100	100	120	130	160	[140]	[30]	110	140
7.	80	70	50	30	70	10	0	30	—	30	40	40	50
8.	120	70	50	70	50	40	40	50	0	90	[80]	10	10
9.	-10	50	110	30	70	70	60	50	70	80	60	[40]	90
10.	60	60	60	50	50	50	50	50	80	90	[90]	100	80
11.	-10	30	30	50	30	40	30	40	10	[50]	[30]	40	50
12.	-60	-70	-60	-10	-30	-30	-40	-90	-240	-240	[-125]	-140	-100
13.	-20	100	110	80	70	10	100	110	110	140	[150]	160	130
14.	20	-150	-240	-140	-90	-60	-90	-210	—	[-120]	-100	-60	-60
15.	-70	-10	-10	40	10	-50	-40	-90	-70	-70	[-20]	-20	20
16.	150	170	90	30	0	-110	-150	-S	+S	+S	[+S]	+S	±S
17.	100	-90	-60	-50	-50	-30	-40	-30	0	30	[30]	60	60
18.	-50	10	-10	0	10	10	20	20	—	—	[-60]	-60	-50
19.	-20	0	-60	-60	-70	-10	40	10	-20	70	[-10]	-50	-10
20.	-50	-90	-80	-80	-30	-10	-70	-30	-40	[-50]	10	20	20
21.	-60	0	-40	-10	-50	-30	40	30	—	(-20)	0	-10	10
22.	-50	-80	-70	-50	-50	-80	-60	-60	-50	[50]	-30	-80	-90
23.	-60	-50	-120	-130	-140	-90	-110	-50	30	-50	[20]	30	160
24.	+S	+S	+S	+S	150	170	220	180	100	20	—	—	20
25.	130	120	50	20	50	40	60	100	70	[60]	110	110	90
26.	30	30	40	40	40	50	60	[60]	70	90	70	+S	80
27.	-S	±	+S	±S	30	60	40	[70]	140	-90	-120	-120	±S
28.	10	40	110	80	80	140	110	170	—	[+S]	+S	+S	160
29.	70	60	70	100	50	30	70	50	60	160	[40]	70	100
30.	-50	-50	30	90	110	160	110	110	110	[110]	90	120	120
31.	170	140	150	120	150	170	+S	170	150	[150]	100	160	160
Means	19	22	17	20	26	29	29	39	42	43	30	34	55
Number of days	29	29	29	29	31	31	30	29	24	27	28	27	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
100	110	130	110	90	90	70	60	50	60	50	78
80	100	90	90	110	50	0	40	60	30	-60	—
-30	-60	-100	70	30	-10	0	0	-10	0	20	-27
140	170	190	170	210	190	120	100	150	110	90	113
70	80	10	60	+S	+S	170	+S	+S	200	150	—
180	190	180	230	190	150	60	60	30	-20	80	111
50	70	80	130	130	130	130	120	130	120	130	75
50	60	110	80	100	120	50	30	50	110	80	63
90	70	70	90	120	80	60	50	60	50	50	65
80	100	80	110	90	90	60	80	100	50	20	72
0	-30	-30	-50	-80	-90	-110	-110	-70	-40	-50	-10
-280	-230	-240	-260	-310	-360	-380	-280	-80	10	50	-153
110	130	120	110	120	120	120	160	130	80	110	107
-80	-60	-60	-80	-70	10	-10	-70	-140	-60	-60	-86
-10	30	60	30	80	60	90	10	40	80	70	7
+S	-60	90	-30	-30	-20	20	-40	-60	-60	-100	—
30	80	170	200	190	80	90	110	40	30	0	31
-50	-20	-50	-60	-30	-10	-10	-30	10	-20	10	—
-30	0	20	-40	-30	-50	-50	-40	-30	-30	-40	-21
70	80	50	70	-10	-20	50	100	-50	-10	-70	-10
-10	-40	-40	0	-10	0	-50	-50	-10	-80	-60	—
-100	-100	-50	-20	-50	10	40	20	-90	-100	-130	-55
+S	110	50	20	-10	-10	30	10	-10	-10	20	-16
-30	-30	-10	0	0	10	0	0	50	60	130	58
100	90	120	120	100	30	-S	-S	+S	+S	40	—
70	70	-50	+S	30	70	60	50	30	40	30	48
+S	+S	-S	20	10	-60	-110	-190	-20	-130	-50	—
180	170	160	150	150	150	160	140	100	80	80	—
70	70	80	80	70	100	60	10	-50	-40	-10	57
120	20	110	150	180	+S	+S	170	150	120	160	—
170	140	120	80	70	90	100	90	60	30	0	119
41	44	49	54	48	36	28	21	21	22	24	
28	30	30	30	30	29	29	29	29	30	31	

February

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	1
1.	20	50	30	30	0	30	±S	±S	±S	[30]	10	50	40
2.	80	60	70	60	90	70	70	70	100	[100]	[100]	90	90
3.	±S	40	50	-50	20	80	110	100	110	[130]	150	110	110
4.	-40	-50	-70	-100	-70	-70	-110	-60	-	70	80	80	90
5.	40	60	80	40	+S	+S	30	20	10	-20	[30]	100	120
6.	50	40	30	30	10	30	30	50	50	[50]	80	70	70
7.	30	30	40	40	30	30	30	10	30	30	70	[100]	150
8.	40	30	30	40	40	60	60	60	60	80	[150]	110	80
9.	50	60	80	80	90	100	100	140	160	-	-	120	110
10.	0	10	0	0	-20	-40	-50	-50	[-40]	-20	-50	-20	20
11.	0	40	30	30	40	10	40	30	-	20	-10	-20	30
12.	60	40	30	30	-50	30	40	40	40	[50]	-	+S	±S
13.	-10	-30	-10	20	30	40	60	80	90	80	70	[40]	100
14.	60	40	50	50	50	60	60	120	150	170	[123]	60	20
15.	50	70	30	60	110	100	100	30	20	[-40]	[-70]	-50	-60
16.	-30	-40	-40	-40	-60	-60	-70	-50	(-60)	(-40)	[-50]	-40	10
17.	90	120	160	160	120	150	120	80	[30]	[-10]	-10	30	10
18.	50	30	20	0	0	10	20	10	-	10	50	80	120
19.	80	70	70	80	80	70	80	80	80	-	70	30	30
20.	20	20	30	20	20	30	40	60	60	70	[70]	50	70
21.	30	40	60	60	40	30	50	70	80	50	[70]	90	100
22.	70	60	50	60	60	70	50	70	100	70	[100]	150	160
23.	40	30	30	30	50	0	-30	-40	-20	10	[-40]	-30	0
24.	-40	-30	10	-10	10	10	0	-10	0	20	[60]	[100]	110
25.	100	90	70	70	90	100	160	100	-	130	140	200	+S
26.	70	140	140	120	+S	150	150	150	150	80	-	-	160
27.	130	140	180	150	80	90	90	60	100	50	[80]	120	140
28.	10	-20	10	-10	-10	-20	0	10	50	[80]	100	140	140
29.	70	50	30	10	10	-10	-10	±S	-40	10	40	20	-10
Means	40	41	44	37	32	41	44	46	60	50	54	66	74
Number of days	28	29	29	29	27	28	28	27	23	26	26	27	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
40	60	80	70	40	40	30	70	90	100	80	—
100	100	100	70	60	50	50	50	60	60	30	74
100	80	100	70	60	90	70	60	90	70	30	77
100	80	100	90	(80)	80	100	40	70	50	60	24
120	110	160	100	150	100	130	150	150	70	60	—
50	100	110	80	100	130	110	100	70	50	30	63
120	80	40	100	80	100	90	110	180	110	80	71
80	90	70	60	80	100	140	110	120	90	30	75
100	100	60	30	40	20	30	30	0	-40	-40	—
50	80	120	180	+S	+S	160	+S	110	-50	-50	--
0	20	40	40	30	±S	30	40	50	50	40	—
70	±S	+S	80	±S	±S	70	50	70	40	0	—
120	90	90	130	120	110	60	40	60	60	40	62
30	60	30	20	10	40	60	80	50	05	40	63
-40	-30	-20	-40	-60	-60	-60	-70	-80	-30	-40	-8
30	60	30	20	10	40	80	80	50	50	40	63
50	40	60	70	90	100	120	90	80	70	70	70
140	120	120	100	100	140	130	120	130	110	90	74
40	40	40	50	60	70	50	50	50	50	30	59
70	70	70	70	60	70	60	60	50	50	40	51
110	120	110	100	120	140	90	70	70	70	70	77
150	170	150	150	140	130	100	90	80	70	70	99
10	10	20	30	-10	10	50	30	30	0	-30	8
120	140	110	100	70	70	80	100	90	30	60	50
+S	200	200	150	140	180	150	120	70	50	90	—
170	130	110	90	60	130	120	110	110	140	+S	—
170	200	170	180	+S	230	190	30	70	40	0	117
150	190	230	250	+S	150	150	130	120	110	60	88
10	30	30	10	10	10	20	50	30	10	10	17
81	88	90	84	67	86	83	65	74	53	36	
28	28	28	29	23	26	29	28	26	28	28	

March

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	10	40	40	40	40	30	30	10	[20]	90	30	80	70
2.	60	50	40	60	60	70	50	70	[90]	90	100	80	80
3.	70	50	40	50	0	--20	90	—	—	90	110	80	70
4.	50	40	50	40	40	60	±S	20	60	[70]	60	±S	70
5.	20	10	0	10	30	30	30	50	[70]	—	90	90	70
6.	50	50	40	50	50	50	60	50	50	60	[80]	90	80
7.	40	30	20	10	-40 (-10)	40	60	90	[80]	80	50	40	
8.	30	30	60	0	-30	20	60	+S	+S	90	[40]	10	50
9.	100	80	100	+S	110	+S	180	150	130	[70]	50	60	70
10.	40	30	20	30	60	60	50	[50]	—	[100]	110	90	120
11.	50	40	60	110	70	80	110	100	50	80	[90]	100	110
12.	30	10	30	30	30	40	60	50	[40]	80	100	90	80
13.	+S	±S	-S	40	+S	±S	-10	-10	-30	-20	[0]	40	50
14.	30	20	10	0	0	30	30	20	30	40	[40]	50	60
15.	30	40	40	40	30	30	30	[40]	60	70	30	40	60
16.	80	50	50	50	50	60	60	70	[60]	60	80	110	120
17.	60	40	50	-50	-50	10	70	90	—	[120]	140	140	140
18.	30	30	20	-10	-10	10	30	30	40	[60]	80	80	80
19.	60	60	40	30	30	10	-10	30	50	[80]	130	120	130
20.	-50	-60	-50	-70	-90	-80	-60	-80	-20	60	[60]	50	70
21.	60	0	-50	-100	-110	-140	-100	10	-60	[10]	[30]	40	70
22.	30	70	70	+S	+S	80	-10	30	30	[10]	30	30	20
23.	-50	-50	-50	10	-40	-10	50	60	50	[40]	40	40	30
24.	120	80	40	10	70	80	30	20	—	-20	-10	0	10
25.	60	40	60	20	-70	-30	40	80	[90]	60	120	120	80
26.	-10	-10	-60	-40	-40	-50	-30	-40	30	30	[60]	70	70
27.	0	10	30	20	20	-100	-40	-30	10	—	80	80	70
28.	70	50	50	20	50	50	60	±S	-S	[50]	100	+S	70
29.	60	100	80	90	80	100	120	120	80	[60]	[90]	80	50
30.	40	50	60	80	70	60	70	70	[70]	50	50	40	60
31.	30	20	20	20	10	10	40	50	—	100	±S	±S	+S
Means	40	33	30	20	14	19	38	42	45	61	71	70	72
Number of days	30	30	30	29	29	28	30	28	24	29	30	28	30

13	14	15	16	17	18	19	20	21	22	23	Daily means
30	100	90	90	70	70	80	70	90	90	70	60
50	40	40	50	20	50	70	60	100	100	80	65
$\pm S$	$\pm S$	30	50	60	60	60	60	60	70	60	—
60	80	70	60	50	60	60	60	50	40	30	—
70	60	50	50	40	50	70	70	80	70	60	51
80	70	70	80	90	80	70	80	60	60	50	65
(60)	(30)	-10	-10	-10	-10	-30	10	40	70	0	—
110	70	100	60	50	100	70	120	90	100	80	—
60	40	50	50	70	60	50	70	70	60	40	—
80	60	100	130	140	180	140	90	80	80	120	85
110	100	110	110	120	60	60	50	40	30	30	78
80	90	80	90	20	-10	30	30	40	70	50	52
60	50	50	40	20	30	40	50	50	40	30	—
60	70	60	60	60	50	60	60	40	30	40	40
70	70	80	130	100	80	90	110	110	70	70	63
130	140	120	120	110	120	120	100	80	70	60	86
150	140	120	60	60	50	30	30	40	30	30	65
80	80	70	70	70	70	60	50	40	50	70	49
130	120	80	60	50	70	20	-50	-90	-70	-50	43
60	-10	30	10	60	+S	+S	+S	30	160	+S	—
90	90	20	80	90	70	60	60	30	-10	0	10
50	30	70	20	60	60	60	70	40	0	-10	—
-60	-160	30	10	70	90	140	110	-40	-20	30	13
30	90	130	130	150	140	90	30	50	90	80	63
40	50	50	40	60	30	10	0	-10	20	0	40
80	80	80	60	60	60	40	30	30	30	20	23
60	50	20	30	50	100	140	100	100	80	70	41
70	70	70	70	70	60	50	30	40	30	30	—
30	30	40	30	10	-20	-10	-30	20	20	40	53
50	60	50	40	50	50	50	40	40	20	20	52
+S	80	90	70	50	40	50	50	70	50	60	—
68	63	66	63	64	63	61	54	47	49	42	
28	29	31	31	31	30	30	30	31	31	30	

April

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	30	30	30	40	50	60	10	-S	-S	-S	-70	-	-50
2.	30	20	30	30	40	30	40	80	[80]	±S	±S	±S	±S
3.	50	50	40	40	40	60	70	[70]	80	80	80	70	70
4.	10	0	0	-10	-10	0	10	-10	[10]	0	-10	30	10
5.	10	20	30	10	0	10	10	10	10	[20]	20	30	50
6.	-10	0	0	0	0	30	50	60	[70]	70	70	60	70
7.	0	0	30	-20	-30	-10	[0]	0	10	50	90	80	100
8.	20	10	30	20	10	-40	-20	-	60	50	30	60	70
9.	50	50	50	60	80	100	90	[100]	90	80	80	80	100
10.	80	60	50	40	70	110	110	[90]	60	100	90	100	120
11.	50	40	40	20	±S	10	10	40	[40]	[80]	90	110	120
12.	60	50	50	50	70	70	90	130	[140]	140	±S	100	110
13.	40	50	40	40	40	50	70	[80]	80	90	70	70	70
14.	20	10	20	40	30	50	60	-	80	70	70	70	50
15.	60	70	70	60	60	60	60	80	80	[80]	90	80	70
16.	50	50	60	50	60	80	80	80	[70]	50	70	90	90
17.	70	50	40	40	40	60	70	80	[80]	110	80	60	70
18.	30	50	40	30	40	40	[30]	40	30	40	40	±S	-
19.	-	-	-	-	-	-	-30	-30	20	60	40	40	30
20.	-30	±S	+S	50	60	70	60	[70]	70	60	40	50	60
21.	40	-10	-20	-70	-70	[-S]	-	-	-10	40	70	60	60
22.	-40	0	30	30	10	10	-20	10	(-10)	0	0	10	40
23.	0	20	10	0	20	30	70	(110)	[60]	60	60	70	80
24.	80	40	20	30	60	-10	-50	[-170]	-	[-20]	40	10	60
25.	-110	-20	-30	-10	-20	-20	40	[50]	40	20	50	±S	±S
26.	50	50	40	40	50	50	60	[60]	70	70	60	50	50
27.	30	30	30	40	40	50	50	[40]	50	50	70	60	60
28.	30	30	40	40	40	40	50	-	[70]	80	80	70	60
29.	30	30	30	20	20	40	50	60	[60]	60	70	80	60
30.	-10	30	40	60	40	50	60	[90]	90	70	70	60	40
Means	25	29	30	27	30	39	42	46	59	59	55	63	64
Number of days	29	28	28	29	28	28	29	24	27	28	28	26	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
-120	10	30	-20	-20	0	±S	40	70	±S	±S	—
±S	±S	±S	±S	±S	30	50	70	80	70	60	—
60	40	40	50	40	40	0	30	10	10	0	47
30	40	60	110	100	60	-10	-10	20	30	10	20
50	60	40	40	30	10	0	-10	-10	0	10	19
80	60	40	30	50	70	30	30	0	-10	0	35
100	90	80	80	80	80	70	60	50	50	40	45
50	40	30	20	10	20	30	50	70	60	60	32
90	80	70	70	70	80	80	70	70	80	80	77
±S	130	80	70	80	80	80	90	110	80	60	84
110	80	80	80	90	100	70	80	70	50	60	66
100	90	100	100	90	70	90	30	70	50	40	84
70	70	70	70	80	70	60	40	40	30	40	60
50	60	60	50	50	60	70	60	60	50	50	52
70	70	50	40	30	40	40	40	50	50	50	61
100	100	100	110	110	80	60	60	50	40	50	73
60	60	60	40	30	40	50	30	40	40	30	55
—	—	—	—	—	—	—	—	—	—	—	—
40	80	-30	30	40	60	±S	-20	30	10	-50	—
60	60	70	70	60	60	50	60	50	50	50	—
60	70	60	50	80	70	60	70	30	60	80	—
30	10	-10	0	-10	0	0	0	-10	-10	-10	3
80	80	80	60	50	50	50	50	30	30	40	47
70	0	30	40	40	10	±S	±S	-S	-50	-50	—
±S	50	60	60	70	80	70	50	50	50	50	—
40	40	40	40	50	60	40	40	40	30	20	48
60	50	10	10	20	-10	10	20	20	40	30	36
60	60	50	50	60	50	60	50	30	30	30	50
70	80	80	90	100	100	100	60	30	20	10	56
50	—	—	—	—	40	60	60	40	20	30	—
58	61	53	53	55	52	49	45	43	34	31	
26	27	27	27	27	29	26	28	28	28	26	

May

Hour GMT													
Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	40	40	40	20	20	50	70	[80]	90	90	110	70	+S
2.	-60	-70	-80	$\pm S$	-10	30	70	[70]	90	80	70	60	60
3.	-10	10	10	20	30	50	60	70	70	[80]	80	80	70
4.	60	60	160	130	90	-10	20	50	30	[20]	10	20	20
5.	40	10	-150	-190	-180	-170	-150	—	-70	-130	-90	-130	-10
6.	10	0	10	30	50	80	-S	-S	-20	10	[100]	80	120
7.	100	80	90	80	120	160	90	—	80	80	100	80	70
8.	30	30	40	50	50	60	60	70	[80]	70	90	90	50
9.	70	90	90	80	70	80	80	90	80	[100]	90	70	60
10.	-30	-30	-40	-20	-10	-10	-10	-10	[0]	0	-10	10	10
11.	10	10	20	40	40	50	60	70	60	[60]	40	50	50
12.	60	90	100	80	100	70	80	—	[60]	70	80	80	70
13.	50	50	40	40	50	50	60	50	50	[50]	50	60	70
14.	60	70	70	60	60	80	70	[60]	50	50	50	50	50
15.	20	20	20	20	30	30	40	50	[50]	50	40	40	40
16.	50	50	60	60	30	40	50	60	[70]	80	70	60	50
17.	40	40	30	40	50	40	40	50	[50]	40	50	50	50
18.	20	10	20	40	40	40	40	40	30	[40]	40	40	50
19.	-30	10	10	10	0	10	10	—	10	20	30	40	50
20.	0	0	0	10	20	20	40	50	[80]	80	80	70	70
21.	30	30	20	10	20	40	50	40	60	[60]	60	70	70
22.	30	20	10	10	30	40	30	[20]	-10	10	40	60	60
23.	50	60	60	50	60	70	70	[60]	60	60	50	40	30
24.	20	20	20	30	20	30	40	[40]	60	60	60	60	50
25.	20	20	20	30	30	30	30	[40]	50	50	50	50	40
26.	10	20	10	10	20	30	30	—	40	50	50	40	30
27.	10	10	10	20	30	30	30	30	[40]	40	30	20	20
28.	20	20	10	10	-10	$\pm S$	$\pm S$	50	[30]	40	20	10	30
29.	20	30	20	20	20	—	—	—	—	—	—	—	—
30.	20	30	20	20	30	40	40	60	[60]	50	30	0	$\pm S$
31.	60	-70	-60	-60	20	30	-30	10	10	[10]	10	30	50
Means	26	25	22	25	30	36	38	50	45	46	49	45	49
Number of days	31	31	31	30	31	29	28	24	30	30	30	30	28

13	14	15	16	17	18	19	20	21	22	23	Daily means
—S	±S	20	50	50	40	40	40	60	60	10	—
60	80	80	80	80	80	70	40	40	30	10	42
70	60	40	50	60	60	70	80	60	10	20	50
90	30	0	—	—20	20	20	40	40	50	80	44
30	20	10	20	20	50	60	90	90	30	0	—35
130	140	130	120	120	100	100	100	90	90	80	—
70	60	50	50	50	50	40	40	50	40	40	73
50	60	60	50	50	50	30	30	40	40	40	53
50	50	60	60	20	10	0	10	10	—20	—20	53
0	0	—20	20	30	40	30	20	20	10	10	0
50	50	40	50	50	50	50	50	60	70	50	47
70	70	70	70	90	100	70	60	50	50	50	74
60	70	70	70	80	70	60	80	50	50	50	58
40	40	30	30	20	20	30	20	20	20	20	45
40	50	50	50	50	50	50	50	50	40	40	40
50	50	70	70	70	60	60	50	50	50	40	56
50	50	50	40	50	50	50	70	60	40	40	47
50	50	40	50	50	30	20	10	10	10	10	33
—S	±S	±S	—40	±S	±S	—10	10	20	0	—10	—
+S	60	±S	±S	20	20	40	40	30	20	10	—
70	±S	±S	±S	±S	60	20	20	20	20	10	—
60	50	40	40	50	80	90	80	90	90	70	45
40	40	40	40	40	30	40	30	30	20	20	45
60	60	60	30	30	30	30	30	20	20	30	38
30	20	30	40	40	30	40	30	30	20	20	32
30	30	20	10	10	20	10	20	20	10	10	23
20	30	30	20	20	20	20	10	20	10	20	23
60	30	10	10	20	20	30	30	30	20	20	—
—	20	20	30	30	40	40	40	30	20	20	—
10	10	30	30	30	—30	20	30	30	20	30	27
60	60	50	40	40	40	50	50	20	10	10	18
52	48	42	42	43	44	41	42	40	31	27	
27	28	28	28	29	30	31	31	31	31	31	

June

Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	20	20	10	10	20	10	20	20	[20]	10	20	30	20
2.	20	20	20	10	10	10	20	—	40	30	20	30	30
3.	20	20	20	20	20	20	20	20	[30]	40	40	30	30
4.	10	0	20	40	50	50	80	[90]	90	70	60	80	60
5.	0	10	10	10	30	40	40	40	[70]	80	30	50	40
6.	10	0	-10	10	30	60	60	70	[70]	70	80	70	80
7.	30	20	30	40	40	40	[50]	[70]	70	60	40	60	±S
8.	20	20	20	20	10	40	30	[30]	30	20	20	30	20
9.	0	0	0	10	10	20	—	—	—	—	—	—	20
10.	-10	-20	-40	-110	-70	-50	-20	-10	[20]	20	20	20	20
11.	40	40	40	30	40	30	-10	30	(30)	40	40	30	30
12.	10	10	20	30	40	50	40	(40)	[50]	50	40	30	30
13.	20	30	20	20	20	50	60	60	(60)	[60]	50	50	40
14.	10	10	10	30	30	60	30	20	(30)	[20]	20	10	20
15.	10	0	10	0	30	[20]	60	50	60	30	10	20	20
16.	10	20	30	30	40	60	30	—	50	30	50	30	30
17.	20	20	30	30	40	50	50	[60]	80	60	50	40	30
18.	—	—	—	—	—	—	—	—	—	—	—	—	—
19.	—	—	—	—	—	—	—	—	—	[80]	70	40	40
20.	20	20	20	40	40	50	70	(60)	[30]	70	70	80	80
21.	-10	-30	-30	-20	-10	-20	-20	40	30	[30]	20	20	30
22.	-20	0	-10	-60	-10	30	20	[-S]	±S	10	30	30	40
23.	30	-10	-10	10	20	40	50	—	—	—	—	—	—
24.	±S	+S	±S	40	30	70	100	[100]	80	90	90	90	60
25.	60	40	20	0	0	30	60	40	(50)	50	40	50	40
26.	10	0	20	30	30	60	70	100	[140]	80	40	40	40
27.	50	50	+S	+S	±S	±S	±S	±S	±S	—	120	80	60
28.	30	30	30	30	30	30	30	30	[30]	40	30	30	20
29.	60	90	100	70	30	110	80	[40]	30	30	20	30	40
30.	+S	0	0	10	10	-S	+S	—	70	60	30	30	30
Means	18	15	15	14	21	37	43	47	55	47	42	42	37
Number of days	26	27	26	27	27	26	25	19	20	26	27	27	27

13	14	15	16	17	18	19	20	21	22	23	Daily means
30	30	30	30	20	20	20	20	20	20	20	20
30	30	30	30	20	20	20	20	20	20	20	23
30	20	20	30	30	50	60	30	40	10	10	28
60	40	40	40	40	30	40	0	±S	60	10	46
40	±S	±S	+S	40	+S	+S	±S	±S	±S	10	—
30	±S	70	50	50	40	40	20	20	30	20	42
±S	±S	40	30	10	20	20	30	20	20	20	—
50	40	30	30	30	30	30	20	20	10	0	25
20	20	±S	20	20	30	+S	±S	±S	+S	±S	—
30	70	20	30	30	40	40	40	40	30	30	7
40	40	20	40	40	20	40	20	20	20	10	30
20	20	20	20	20	10	10	20	10	20	20	26
50	60	50	50	40	20	20	10	10	10	10	35
10	10	10	20	20	30	30	30	20	20	10	21
30	—	—	—	—	±S	10	30	30	30	30	—
30	40	40	40	40	50	50	50	40	30	30	38
30	30	30	50	—S	—30	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
50	50	50	40	60	50	50	40	30	20	10	—
80	+S	±S	±S	±S	±S	±S	±S	±S	40	50	—
30	30	20	20	—10	50	20	10	0	—30	—20	6
40	40	±S	40	50	100	+S	50	60	50	40	—
—	—	—	—	40	40	40	50	±S	±S	±S	—
40	50	40	50	40	40	30	30	40	40	50	—
±S	±S	±S	±S	±S	±S	—70	30	40	30	10	—
40	50	50	50	50	50	50	50	60	40	40	50
10	—30	0	±S	0	—10	±S	10	10	10	20	—
40	40	50	60	50	40	20	10	0	20	40	32
±S	±S	80	±S	±S	±S	±S	±S	±S	±S	±S	—
30	30	30	30	30	30	30	30	30	30	30	—
36	34	35	36	32	32	27	27	26	24	21	
25	21	22	22	24	24	22	24	22	24	25	

July

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	30	30	30	30	30	40	40	30	[40]	30	30	30	30
2.	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	$\pm S$	30	[70]	110	70	60	40	20
3.	30	30	30	30	30	30	30	[30]	30	10	20	20	30
4.	30	30	30	30	30	40	40	40	50	[30]	30	30	30
5.	30	30	20	30	30	50	60	[50]	50	30	30	30	20
6.	-10	30	30	30	30	40	70	70	[50]	40	30	$\pm S$	$\pm S$
7.	-30	0	-10	10	30	60	130	—	100	50	50	40	20
8.	60	40	10	40	0	-10	20	[30]	[60]	50	30	30	30
9.	20	20	30	30	20	30	30	40	[40]	40	40	30	20
10.	0	-20	-20	10	0	0	30	[60]	50	60	40	$\pm S$	$\pm S$
11.	10	20	30	40	30	60	90	[50]	60	70	80	$\pm S$	$\pm S$
12.	30	30	30	30	40	40	40	[30]	40	40	40	20	10
13.	40	50	40	40	50	70	70	[50]	50	60	60	50	40
14.	-20	20	0	10	20	20	70	70	50	—	40	40	—
15.	30	30	60	60	20	60	100	80	80	[80]	70	70	50
16.	30	30	30	40	50	50	60	40	[70]	60	$\pm S$	$\pm S$	$\pm S$
17.	-S	+S	-90	-50	-10	30	100	150	[110]	+S	30	80	50
18.	50	40	40	40	60	70	90	100	[100]	80	60	70	50
19.	40	50	100	90	-50	10	20	[70]	[90]	70	50	60	50
20.	50	60	60	60	70	80	80	[40]	-S	$\pm S$	-S	70	50
21.	30	30	10	-S	$\pm S$	$\pm S$	$\pm S$	—	$\pm S$	$\pm S$	$\pm S$	70	30
22.	30	30	30	30	50	100	60	40	[50]	60	30	10	20
23.	30	30	40	40	30	40	70	[110]	—	120	140	110	70
24.	70	70	50	40	40	60	70	90	[100]	110	70	70	70
25.	110	120	100	70	70	60	60	70	[90]	90	80	90	80
26.	50	50	50	60	50	30	80	[70]	80	100	70	70	70
27.	20	20	20	0	20	40	30	[60]	80	100	70	70	50
28.	30	30	+S	0	70	70	70	—	[80]	70	60	70	20
29.	50	50	40	30	50	100	130	110	[130]	120	70	60	$\pm S$
30.	120	110	+S	50	80	50	+S	+S	100	[70]	60	50	50
31.	30	30	30	40	50	60	90	[90]	100	110	90	80	70
Means	34	38	29	33	34	49	64	64	73	67	56	54	41
Number of days	29	29	28	29	29	29	29	27	23	27	28	27	25

13	14	15	16	17	18	19	20	21	22	23	Daily means
30	30	30	30	30	30	40	40	30	-20	+S	30
20	0	30	30	20	20	20	20	20	30	30	—
30	30	30	20	20	20	30	10	30	30	30	26
30	30	30	40	40	40	40	30	30	30	30	34
30	±S	0	30	30	30	30	30	30	30	20	31
-40	50	40	30	+S	±S	±S	30	-30	-50	-70	—
40	60	50	40	40	40	40	40	40	50	30	40
20	20	20	20	20	40	50	40	30	20	20	29
30	30	30	(±S)	±S	-S	-S	±S	±S	-20	10	—
±S	+S	±S	-S	30	±S	10	20	30	20	0	—
±S	±S	+S	20	30	40	40	40	40	40	20	—
-10	0	10	10	20	30	40	40	50	40	50	29
20	10	-40	+S	-S	±S	0	-60	-90	-70	-30	—
—	50	40	30	30	30	30	40	40	30	30	—
30	30	40	40	50	60	60	40	50	40	30	53
-30	30	30	-40	-50	30	50	0	-S	+S	-40	—
50	40	50	60	60	70	70	60	50	50	60	—
40	40	50	40	50	40	50	40	30	30	30	54
70	70	80	80	70	40	40	50	50	30	50	53
40	50	40	50	40	50	50	50	30	30	40	—
100	60	40	40	60	60	50	50	50	50	30	—
30	30	30	30	30	30	(10)	—	-10	10	20	—
70	70	70	70	70	70	70	70	60	50	50	67
50	40	40	60	90	80	60	70	60	70	100	68
70	80	90	80	80	90	90	70	70	60	40	80
60	70	70	60	60	50	50	50	40	40	30	61
60	-S	70	40	60	60	70	60	50	50	30	49
-S	-S	±S	±S	110	60	70	70	40	50	50	—
+S	50	40	50	50	50	50	50	70	80	90	—
60	50	50	70	80	70	110	110	70	50	50	—
90	100	80	90	90	100	70	50	60	100	80	74
38	43	41	41	47	49	49	42	35	32	30	
26	26	28	27	26	27	28	29	29	30	30	

August

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	100	60	50	50	60	120	90	[110]	120	130	130	130	130
2.	30	50	40	50	50	40	80	[70]	70	30	90	90	90
3.	50	50	50	60	50	70	30	[40]	40	40	50	40	40
4.	30	30	30	30	30	50	60	—	90	70	70	60	60
5.	60	60	60	60	60	80	80	30	[70]	70	60	50	40
6.	±S	±S	±S	±S	40	40	20	40	[+S]	70	30	70	50
7.	50	60	50	50	50	60	90	[100]	100	90	60	50	40
8.	—	—	—	—	—	—	—	—	—	—	—	—	—
9.	—	—	—	—	—	—	—	—	—	—	—	—	—
10.	—	—	—	—	—	—	—	—	—	—	—	—	—
11.	—	—	—	—	—	—	—	—	[70]	60	50	50	30
12.	20	20	20	30	40	90	130	80	[50]	50	—S	±S	±S
13.	—	—	—	—	—	—	50	[60]	70	50	30	30	20
14.	—	—	—	—	—	10	30	[60]	50	50	40	30	10
15.	70	60	60	50	50	50	60	[70]	90	90	70	70	60
16.	40	50	50	(50)	(70)	130	—	—	—	—	—	—	—
17.	—	—	—	—	—	—	—	—	—	—	—	—	—
18.	—	—	—	—	—	—	—	—	—	—	—	80	70
19.	50	50	50	40	30	50	70	[70]	70	90	80	80	80
20.	40	20	±S	±S	0	0	[30]	+S	+S	100	60	+S	—S
21.	30	20	30	40	50	50	70	[50]	50	—20	—20	—30	0
22.	60	40	50	70	60	(60)	50	[40]	10	20	60	60	70
23.	70	50	50	40	40	50	[50]	50	50	50	50	50	50
24.	30	—S	10	30	20	30	[50]	80	60	60	50	40	40
25.	30	30	40	40	40	50	[50]	—	50	40	50	70	70
26.	50	40	30	40	40	50	90	[70]	40	40	30	10	10
27.	40	30	40	40	40	(100)	120	[80]	70	70	50	50	50
28.	40	50	40	40	50	80	[90]	70	50	30	30	30	30
29.	40	40	50	60	20	50	[90]	50	40	50	50	60	60
30.	30	20	30	30	30	—	70	[80]	90	80	80	70	60
31.	—	—	—	—	—	—	—	—	—	—	—	—	—
Means	46	42	42	45	40	60	67	68	64	61	54	54	50
Number of days	21	20	20	19	21	20	23	20	22	24	23	23	23

13	14	15	16	17	18	19	20	21	22	23	Daily means
110	100	90	70	80	70	50	50	50	50	50	85
80	70	70	60	50	60	60	50	50	60	70	63
40	40	40	40	40	40	40	40	30	30	20	42
60	100	+S	±S	60	70	60	70	70	60	60	—
30	30	40	30	40	40	40	40	30	±S	±S	—
60	70	70	70	80	80	90	80	60	50	50	—
40	50	40	30	40	50	50	(40)	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
40	30	40	40	50	50	30	80	70	50	40	—
—	—	—	—	—	—	—	—	—	—	—	—
±S	—	—	—	—	—	—	—	—	—	—	—
—20	—10	10	50	50	30	60	60	90	100	110	—
70	70	80	90	100	70	70	50	60	40	40	66
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
70	80	80	70	60	50	60	70	50	70	70	—
90	80	80	70	50	50	50	40	40	40	30	60
70	20	30	30	50	40	40	30	10	10	30	—
0	0	20	30	±S	—20	20	30	60	90	70	27
50	10	0	40	60	70	60	50	50	50	50	47
60	60	70	70	60	60	60	50	40	20	20	51
30	40	50	60	50	50	40	30	40	40	30	42
60	40	40	30	40	60	70	50	50	60	70	49
20	30	40	30	40	40	40	60	60	60	50	42
60	50	50	40	60	40	50	60	50	50	50	54
30	30	40	30	40	30	40	40	40	40	20	42
60	40	50	50	50	40	70	70	60	40	40	51
70	40	40	+S	30	40	—10	10	10	—10	—10	40
—	—	—	—	—	—	—	—	—	—	—	—
51	47	40	49	54	48	52	50	49	48	46	
23	23	22	21	22	23	23	22	22	21	21	

September

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	—	—	—	—	—	60	80	—	20	—20	—50	—40	30
2.	60	70	70	80	80	90	90	[80]	90	120	110	90	130
3.	90	70	60	50	40	50	[80]	120	120	140	130	120	60
4.	40	40	30	50	60	90	140	[110]	120	120	80	80	80
5.	60	70	70	70	70	+S	110	[70]	60	60	60	60	40
6.	70	80	60	50	70	50	110	[70]	70	60	60	80	90
7.	40	40	30	30	30	40	60	[80]	130	140	120	120	110
8.	40	40	30	50	60	70	80	—	—10	20	30	40	40
9.	20	30	30	40	40	40	40	—	40	40	40	50	50
10.	10	10	30	20	10	10	10	20	20	20	30	20	—
11.	—	—	—	—	—	—	—	—	—	—	—	—	—
12.	30	30	30	40	40	40	70	100	110	90	[70]	60	70
13.	70	40	40	40	—30	—	—	—	—	—	—	—	—
14.	40	40	40	50	40	50	50	[40]	—	—	40	50	40
15.	20	30	40	50	40	50	90	—	—	90	70	60	60
16.	40	70	50	30	40	40	70	—	—	110	90	(110)	110
17.	50	20	0	10	30	20	10	20	30	—	—	—	70
18.	30	30	40	30	30	70	80	[70]	80	110	120	130	150
19.	30	10	40	60	60	—	—	—	—	—	—	—	—
20.	20	10	10	10	10	30	[60]	30	30	20	20	20	30
21.	40	60	50	40	40	30	30	[20]	10	20	60	50	50
22.	40	30	10	20	20	10	40	[50]	—	110	100	100	90
23.	50	40	40	40	40	50	80	[80]	100	100	110	120	140
24.	50	40	30	30	30	30	[40]	50	60	70	90	80	80
25.	40	40	40	60	50	50	70	[120]	160	140	120	90	100
26.	70	60	50	50	50	40	[70]	80	30	70	110	100	10
27.	50	70	50	50	100	70	[100]	150	120	110	80	60	60
28.	40	50	60	30	30	40	70	70	[50]	70	90	80	80
29.	50	—	—	—	—	—	—	—	—	100	120	110	110
30.	30	30	30	30	20	30	40	[40]	50	50	50	40	30
Means	44	43	39	41	41	46	68	70	68	78	77	71	73
Number of days	28	27	27	27	27	25	26	21	22	25	26	25	26

13	14	15	16	17	18	19	20	21	22	23	Daily means
10	10	-10	-40	20	20	40	50	60	70	70	—
90	80	70	70	80	130	130	160	120	130	120	68
50	60	40	30	50	60	50	50	50	19	20	67
70	60	60	60	50	60	60	60	70	60	70	72
40	40	40	40	50	50	50	40	60	60	50	58
130	120	110	80	80	90	80	70	60	50	40	77
110	120	120	90	±S	-30	20	40	40	30	40	67
40	30	20	30	40	40	30	40	30	30	30	37
50	30	-S	40	30	20	20	40	40	40	30	36
—	70	40	40	(50)	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	60	40	40	—
40	40	50	50	60	60	70	70	80	70	50	59
—	—	—	10	20	0	20	10	20	20	30	—
±S	80	40	40	40	30	30	30	30	30	20	—
60	70	80	80	90	90	60	60	40	30	40	—
120	120	120	110	90	100	100	70	70	70	60	—
70	60	50	50	30	30	40	40	50	40	30	—
120	100	90	80	60	60	60	50	30	40	50	71
40	20	20	10	10	30	30	20	20	30	10	—
40	30	40	40	50	40	40	40	40	40	40	31
50	50	50	60	60	60	60	50	40	40	50	45
120	120	100	110	110	110	90	80	50	60	60	71
110	120	120	100	90	70	20	40	30	50	70	75
80	100	90	80	80	30	70	40	50	50	40	60
80	70	60	60	50	50	40	40	50	50	60	70
10	20	30	130	150	140	130	110	90	80	50	74
60	50	40	50	40	60	50	60	50	50	50	68
80	80	80	90	80	70	60	50	50	40	40	62
90	60	50	50	50	50	50	40	40	40	40	—
30	50	40	30	40	40	30	30	40	30	30	36
69	66	63	58	59	56	55	53	50	48	46	
26	28	27	29	27	28	28	28	29	29	29	

October

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	30	30	40	30	30	30	40	40	[50]	70	60	80	60
2.	—	—	—	—	—	—	—	—	—	—	—	—	—
3.	—	—	—	—	—	—	—	—	—	—	—	—	—
4.	—	—	—	—	—	—	—	—	—	—	—	—	—
5.	—	—	—	—	—	—	—	—	—	—	—	—	—
6.	—	—	—	—	—	—	—	—	—	40	50	60	40
7.	-10	10	30	0	-20	0	0	-20	-20	-10	-20	10	20
8.	±S	40	110	110	30	0	120	40	-20	160	-120	110	20
9.	—	—	—	—	—	—	—	—	—	—	—	30	120
10.	80	80	70	60	50	60	60	80	90	[90]	80	70	40
11.	10	20	20	40	60	50	60	60	[70]	70	70	60	50
12.	50	60	20	-50	20	60	100	100	[90]	90	±S	±S	±S
13.	±S	-30	0	0	-10	0	0	—	-10	-10	-50	-10	-10
14.	0	10	80	100	100	90	70	—	—	—	—	60	50
15.	60	70	30	10	20	30	40	70	[70]	80	100	70	60
16.	70	50	30	40	70	80	50	60	(50)	90	80	70	60
17.	30	30	30	20	20	10	30	50	60	[70]	80	80	70
18.	40	20	20	40	50	60	±S	20	[70]	80	80	80	60
19.	70	60	50	50	40	40	50	50	50	[80]	100	90	80
20.	30	10	20	40	50	70	90	90	—	110	110	120	120
21.	70	70	110	130	140	170	120	120	[130]	140	140	120	100
22.	80	80	50	40	60	100	130	130	60	—	60	60	60
23.	30	30	10	0	-10	30	30	50	0	[-10]	-10	-10	10
24.	50	50	60	60	80	80	80	120	90	(70)	40	60	70
25.	10	30	20	10	40	30	40	50	[50]	90	10	50	-20
26.	0	10	20	40	60	60	70	70	80	110	[100]	100	110
27.	70	60	40	30	40	40	80	150	—	100	100	90	110
28.	80	80	80	60	50	40	80	120	140	160	[120]	130	150
29.	-10	-10	-10	20	20	30	70	170	130	90	[80]	90	90
30.	60	60	60	60	60	60	50	70	70	70	[70]	60	80
31.	60	50	40	50	60	90	120	140	80	110	90	[100]	90
Means	42	39	41	40	44	52	66	80	64	81	60	70	65
Number of days	23	25	25	25	25	25	24	23	21	23	24	26	26

13	14	15	16	17	18	19	20	21	22	23	Daily means
70	70	80	120	130	120	80	70	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
30	30	30	40	50	30	30	30	30	0	10	—
40	40	30	30	-10	-30	-10	—	—	60	40	—
—	—	—	—	—	—	—	—	—	—	—	—
110	90	60	60	100	100	110	100	110	120	100	—
30	40	40	30	0	30	50	40	40	40	50	53
50	50	40	30	30	-50	-30	-80	-40	10	30	28
0	10	40	10	-100	-40	0	0	10	30	10	—
-10	0	30	20	30	40	60	50	40	60	60	—
-30	-20	30	50	70	70	90	70	60	60	60	—
30	-40	-20	50	60	60	40	40	40	80	70	47
70	70	80	90	70	70	70	70	80	40	30	65
70	80	90	70	±S	±S	10	±S	10	10	40	—
70	90	90	80	80	70	70	80	70	90	80	65
80	80	90	90	90	110	80	60	50	40	40	68
90	100	100	100	90	110	140	120	110	100	70	87
100	80	80	90	70	30	30	40	70	60	90	96
80	30	30	40	50	20	-10	-40	-40	-30	0	47
10	30	50	30	90	20	60	120	150	100	50	36
60	40	0	10	10	10	50	60	70	70	70	56
0	±S	0	-80	-90	-30	-40	-40	-40	-50	-10	1
110	120	130	140	160	140	140	130	110	90	80	91
110	90	80	70	40	90	100	130	120	110	80	84
150	120	50	30	70	30	40	10	-10	0	0	74
90	60	70	50	30	30	70	50	30	40	60	56
70	70	90	80	80	70	80	80	60	50	50	67
90	90	80	110	170	170	160	130	90	80	50	96
60	57	57	55	55	51	57	55	51	50	48	
26	25	26	26	25	25	26	24	24	25	25	

November

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	20	10	0	10	10	30	40	50	50	70	[30]	80	80
2.	30	30	20	50	70	80	80	60	20	10	[30]	30	60
3.	50	40	220	120	130	180	+S	190	—	140	90	90	100
4.	+S	+S	-S	+S	+S	+S	+S	+S	-60	-10	[30]	100	50
5.	-S	-S	+S	50	-60	-40	-20	-50	-110	-110	[-20]	-30	-20
6.	—	—	—	—	—	—	—	—	—	—	—	—	—
7.	—	—	—	—	—	—	—	—	—	—	—	120	120
8.	100	70	50	50	60	50	60	100	90	—	190	170	150
9.	140	120	80	40	0	30	10	-30	-20	-40	[90]	80	50
10.	40	40	10	-10	0	0	30	60	60	—	[80]	100	100
11.	90	90	80	70	90	120	110	130	—	—	—	120	120
12.	40	20	10	20	10	-30	-10	-20	30	70	[80]	80	70
13.	80	120	130	90	70	120	150	130	110	110	[110]	100	110
14.	90	70	60	70	70	60	70	80	90	110	[110]	120	130
15.	70	-50	0	10	-30	10	-10	100	30	30	[30]	120	110
16.	110	130	80	90	100	90	130	150	120	120	[130]	100	-40
17.	60	60	50	70	80	90	100	90	90	100	—	80	80
18.	-20	-60	-40	-10	50	50	60	50	10	70	[70]	70	80
19.	50	50	40	40	50	+S	40	70	80	70	[70]	60	70
20.	40	30	20	-10	50	-20	-60	-90	-S	-30	(40)	20	40
21.	30	20	40	50	80	70	140	200	200	70	[150]	120	120
22.	120	120	60	20	50	110	+S	+S	+S	+S	[+S]	+S	+S
23.	+S	+S	+S	+S	160	140	190	200	+S	+S	[170]	140	140
24.	90	60	70	80	90	110	120	—	—	[130]	120	90	100
25.	70	80	100	120	110	100	+S	+S	+S	+S	[+S]	130	110
26.	130	90	+S	+S	+S	+S	+S	+S	140	140	[100]	50	—
27.	-40	-10	-50	-30	0	-10	-30	-40	10	60	[80]	120	150
28.	60	70	40	140	30	40	50	60	90	130	[120]	110	110
29.	220	80	50	70	90	70	80	90	70	80	[100]	80	70
30.	-20	30	10	-30	-60	10	-30	50	0	10	10	0	—
Means	66	52	47	47	50	58	57	71	52	60	83	88	87
Number of days	25	25	24	25	26	25	23	23	21	22	23	28	26

13	14	15	16	17	18	19	20	21	22	23	Daily means
90	90	80	90	80	70	70	60	30	60	40	54
140	120	+S	+S	-10	0	-30	-10	-10	50	60	—
60	80	80	50	40	50	0	30	60	30	+S	—
+S	+S	+S	+S	+S	+S	+S	+S	70	-50	-120	—
-30	-180	-110	-220	-140	-220	-250	-200	-20	-50	-20	—
—	—	—	—	—	—	—	—	—	—	—	—
100	110	130	150	100	120	140	160	120	120	120	—
130	190	130	90	60	50	20	60	+S	110	130	96
40	50	100	-20	-40	30	90	60	10	10	0	37
110	100	100	110	110	130	130	160	140	130	150	82
130	110	100	60	70	70	40	50	60	40	60	—
80	30	30	50	-10	-S	-20	-S	+S	+S	40	—
110	110	150	160	150	160	150	130	150	110	80	120
110	100	110	130	100	40	10	110	110	90	80	88
+S	90	90	120	140	120	110	170	30	110	180	68
0	70	50	80	90	70	90	110	80	70	60	87
70	80	-30	30	50	30	40	60	40	50	40	61
60	70	120	60	20	40	10	80	70	50	50	42
60	70	80	90	90	90	80	110	100	60	50	68
70	80	110	140	120	120	100	110	100	90	40	—
120	+S	+S	190	+S	+S	+S	80	110	70	170	—
+S	+S	+S	+S	+S	+S	80	140	+S	+S	+S	—
120	100	100	120	70	60	100	130	80	90	110	—
100	80	80	100	90	90	90	80	80	90	70	—
180	190	140	80	120	130	90	60	80	150	130	—
—	—	—	—	—	—	—	—	—	—	—	—
160	100	90	140	+S	140	60	30	-20	10	(60)	—
90	120	140	+S	180	180	160	130	80	+S	180	—
80	30	50	40	60	130	110	70	80	40	-50	75
—	—	—	—	—	—	—	—	—	—	—	—
91	83	83	80	67	74	58	79	68	64	69	—
24	24	23	23	23	23	25	25	24	24	24	—

December

Hour GMT Month	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	—	—	—	—	—	—	—	—	—	—	—	—	—
2.	—	—	—	—	—	—	—	—	—	—	—	—	120
3.	170	120	110	150	90	60	80	200	[160]	[160]	160	160	170
4.	—	—	—	—	—	—	—	—	—	—	—	150	130
5.	90	120	+S	+S	110	10	20	90	80	110	[130]	150	150
6.	+S	-40	20	110	110	+S	40	90	110	-S	[-S]	80	110
7.	80	20	±S	±S	-60	-20	70	90	10	10	[-10]	0	-40
8.	60	70	70	50	70	60	70	[40]	—	0	-10	-40	-30
9.	(80)	80	90	110	110	100	120	160	[170]	170	170	170	160
10.	120	120	90	90	90	80	110	+S	[140]	170	110	150	+S
11.	90	80	70	+S	110	110	90	120	[70]	100	110	160	150
12.	20	30	60	70	90	100	110	120	[100]	—	—	—	—
13.	—	—	—	—	—	—	—	—	—	—	—	+S	200
14.	190	170	160	60	80	110	150	+S	+S	90	[80]	130	110
15.	50	50	30	-10	-10	90	100	—	—	—	—	—	—
16.	—	—	—	—	—	—	—	—	—	—	—	—	—
17.	—	—	—	—	—	—	—	—	—	—	—	—	—
18.	—	—	—	—	—	—	—	—	—	—	—	—	—
19.	—	—	—	—	—	—	—	—	—	—	—	—	—
20.	—	—	—	—	—	—	—	—	—	—	—	—	—
21.	—	—	—	—	—	—	—	—	—	—	—	—	—
22.	—	—	—	—	—	—	—	—	—	—	—	—	—
23.	40	50	50	60	80	130	110	80	100	100	[80]	90	80
24.	10	10	20	50	50	50	40	40	50	80	[90]	50	80
25.	140	100	40	40	20	20	40	70	170	130	—	130	150
26.	30	40	40	30	40	50	150	110	50	60	[40]	50	50
27.	50	50	30	30	30	50	50	50	50	110	150	[0]	[50]
28.	0	0	10	20	30	30	30	30	40	40	80	[90]	90
29.	80	70	40	30	50	40	40	50	—	[220]	(240)	230	+S
30.	120	110	140	140	130	160	210	210	190	+S	[+S]	240	180
31.	110	100	110	100	100	120	140	140	200	230	[260]	+S	210
Means	81	69	66	66	69	71	89	99	106	111	103	111	112
Number of days	18	20	18	17	20	19	20	17	16	16	14	18	19

13	14	15	16	17	18	19	20	21	22	23	Daily means
—	—	—	—	—	—	—	—	—	—	—	—
90	90	110	130	170	190	160	160	80	160	150	—
160	90	110	160	220	160	210	210	170	90	60	143
150	70	80	40	120	150	160	190	150	90	90	—
80	110	160	90	90	—S	±S	—20	—20	—20	—20	—
210	160	160	+S	210	±S	170	130	150	90	80	—
20	110	60	60	70	50	70	70	70	90	90	—
20	30	—20	—20	—60	—20	0	20	60	100	—	24
410	160	160	180	160	200	+S	+S	190	170	160	—
±S	+S	160	200	+S	+S	±S	±S	150	100	90	—
200	+S	140	170	180	—	—	—	160	—	100	—
—	—	—	—	—	—	—	—	—	—	—	—
+S	+S	210	210	160	120	100	170	+S	140	190	—
100	100	100	70	120	100	90	80	70	60	110	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	10	10	20	20	30	30	30	30	30	—
100	80	40	30	30	20	10	30	30	30	30	62
120	90	120	100	120	100	80	30	60	60	80	68
120	120	70	150	150	150	150	180	90	40	30	100
70	50	80	70	30	90	100	110	90	90	60	68
60	70	40	—20	—10	—10	10	10	0	—10	—10	35
100	80	100	100	110	120	140	140	140	140	110	74
230	210	220	210	220	+S	+S	+S	+S	200	120	—
140	200	210	200	210	240	200	130	170	140	120	—
200	220	200	190	140	170	200	+S	+S	200	180	—
122	113	115	111	120	109	111	104	97	95	88	
19	16	22	21	21	17	17	17	19	21	21	

charges transported by point-discharge for each month

12	13	14	15	16	17	18	19	20	21	22	23	Means
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	8	0	2	1	3	0	0	0	0	0	3,2
7	0	0	0	1	0	6	0	0	1	0	0	2,8
2	2	1	0	0	0	1	0	0	0	0	0	2,2
0	1	1	0	0	0	0	1	0	0	0	0	2,0
58	66	66	23	7	0	0	3	0	0	2	4	15,5
23	56	61	183	4	0	8	3	0	0	6	0	22,5
5	1	37	14	21	60	3	0	0	0	0	0	7,0
2	17	39	18	6	2	0	0	0	0	0	0	3,8
0	10	41	4	33	59	67	103	53	80	28	25	26,5
1	36	53	5	37	56	63	63	107	38	29	12	27,5
20	25	9	77	5	13	45	16	16	43	4	0	19,4
12	26	30	20	13	58	22	20	25	38	0	0	20,0
0	16	17	17	49	17	33	3	2	0	6	0	8,1
7	28	19	0	8	14	46	24	1	0	0	0	9,6
0	28	11	1	14	0	5	0	0	0	0	0	2,8
0	23	7	4	20	3	6	0	0	0	0	0	3,1
1	5	13	3	2	2	4	0	1	6	0	0	3,9
2	0	4	36	0	12	4	0	5	6	0	0	3,3
0	0	0	0	0	0	1	0	1	1	1	0	0,8
0	0	0	0	0	0	0	0	0	2	0	1	1,0
0	0	0	0	0	0	0	0	0	0	1	0	0,1
0	0	0	0	0	0	0	0	0	0	1	0	0,1