

B. 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 monthly and daily means. Daily means of each day with 24 hours of recording are entered. However, loss of a maximum of one hour's data out of twelve (for example, on account of instrument maintenance or calibration) has not precluded entering this mean value. In hours marked by S the value of the potential gradient exceeded permanently or several times the measuring limits of the equipment making the determination of an hourly average impossible. The directions of the deviations are marked by signs.

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

All data are presented in universal time (GMT).

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

Hourly means of the potential

January

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	70	70	60	50	100	120	130	160	80	30	[30]	40
2.	40	30	0	-110	70	10	-40	-70	-70	-90	[-80]	-60
3.	130	90	150	140	140	80	130	[130]	120	100	0	120
4.	-10	±S	-30	50	-60	80	180	70	130	[100]	130	130
5.	80	70	80	80	90	90	80	80	100	170	[180]	200
6.	60	-	30	50	50	-	20	-	-	90	100	120
7.	30	60	60	80	90	80	90	80	100	100	[70]	60
8.	60	50	50	50	50	60	70	50	80	80	70	[80]
9.	80	40	40	50	50	70	30	40	70	70	[170]	110
10.	30	40	60	60	40	60	70	60	80	60	[60]	80
11.	30	-50	-50	-10	0	-50	-60	-30	0	20	40	10
12.	120	110	130	100	90	90	120	+S	+S	+S	110	[120]
13.	10	10	20	30	40	40	50	-	-	80	120	100
14.	-50	-50	-10	20	20	-20	-90	50	90	120	140	[120]
15.	40	30	40	50	40	70	100	110	140	110	[100]	90
16.	10	50	60	50	60	50	50	40	[70]	70	50	70
17.	±S	40	40	40	40	50	50	60	70	50	60	[40]
18.	±S	40	20	50	70	80	80	80	90	100	100	[100]
19.	-70	-60	10	40	40	50	30	30	50	-70	0	[70]
20.	90	80	10	60	60	50	40	70	-	-	-	50
21.	50	40	50	50	50	50	50	70	60	60	70	[70]
22.	80	100	70	70	70	100	100	70	120	180	[140]	140
23.	40	40	50	20	-70	-80	-80	-80	10	60	-	-
24.	50	30	30	30	40	30	-S	±S	±S	±S	±S	±S
25.	40	±S	±S	40	40	40	40	50	50	70	50	[40]
26.	50	50	40	30	30	-S	40	+S	50	60	[70]	60
27.	50	50	50	40	40	50	50	-	-	90	90	80
28.	60	70	50	40	40	30	40	40	60	60	[80]	100
29.	-20	-30	-30	0	10	-10	-20	-30	-20	-10	[-20]	20
30.	0	-10	-10	0	30	30	10	0	20	20	30	[40]
31.	50	70	70	40	30	40	50	80	70	30	30	30
Means	41	38	38	42	45	46	47	48	65	65	71	77
Number of days	29	28	30	31	31	29	30	25	25	28	28	29

gradient for 1986

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
20	100	90	110	80	120	80	90	120	130	120	90	87
-10	-50	0	20	110	110	0	-20	40	70	100	30	1
140	70	130	80	80	50	0	50	130	50	90	60	94
90	120	90	30	70	80	90	110	110	100	90	90	80
140	140	170	160	130	140	130	120	120	140	110	90	120
120	120	120	130	170	130	110	160	160	120	100	90	-
70	80	70	70	80	90	120	80	100	90	70	70	79
90	100	100	100	120	130	110	110	100	70	60	80	80
80	60	60	50	60	80	40	30	50	60	20	-10	54
100	100	100	90	80	40	20	10	20	10	20	10	54
[-40]	10	20	70	140	+S	180	+S	140	+S	+S	+S	-
160	170	120	80	80	120	90	80	80	80	40	30	-
120	110	100	80	+S	+S	-50	0	-30	0	0	-50	-
120	120	150	180	170	-S	+S	+S	+S	+S	-20	10	-
90	110	120	100	70	80	80	80	60	60	50	+S	79
80	70	80	-120	-40	30	40	50	+S	-20	+S	+S	-
40	70	+S	+S	40	60	50	50	40	60	50	60	-
120	120	110	90	80	60	+S	-130	+S	+S	+S	-30	-
120	120	90	80	100	120	110	110	110	120	100	110	59
60	60	60	60	70	50	50	50	60	50	50	50	-
80	90	110	100	90	90	80	100	90	110	70	70	73
150	160	150	120	90	120	100	70	50	70	100	50	103
[110]	110	120	130	70	100	70	50	30	50	50	50	-
+S	+S	30	40	40	40	30	40	40	40	40	40	-
50	50	70	-S	50	60	50	50	50	50	50	40	-
60	60	50	60	50	70	70	80	80	70	50	50	-
80	50	70	30	60	80	90	90	80	80	60	40	-
100	90	80	100	100	80	70	70	60	70	50	30	65
-10	-20	0	0	-10	-20	10	30	30	0	-10	0	-7
50	40	40	60	60	60	80	80	110	100	60	40	39
[30]	50	+S	+S	70	40	70	100	120	80	120	120	-
80	83	86	75	79	79	68	62	77	68	60	47	
30	30	29	28	30	28	29	29	28	28	28	28	

February

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	90	90	90	100	70	70	80	70	30	20	20	[-10]
2.	+8	10	10	10	20	10	-10	30	20	20	[30]	40
3.	70	90	110	90	70	90	70	-	-	+8	100	90
4.	50	50	50	50	80	100	110	130	[+8]	[100]	110	130
5.	70	40	10	30	40	50	70	70	80	90	[90]	100
6.	90	70	60	50	40	40	40	30	110	130	[120]	160
7.	50	50	60	80	70	60	50	70	60	20	[80]	90
8.	110	120	130	130	120	100	120	110	130	120	100	[110]
9.	-70	-8	+8	-8	+8	+8	-8	+8	+8	+8	[+8]	+8
10.	+8	-70	-30	-	-	-	-	-	-	-	-	-
11.	-	-	-	-	-	-	-	-	-	-	-	-
12.	-	-180	-230	-220	-	-	-	-	-120	-110	[-150]	-180
13.	-10	-10	-50	-40	-30	10	40	70	90	90	[100]	110
14.	80	100	100	80	50	70	60	90	130	120	[120]	100
15.	20	-10	-80	-70	-20	-40	-50	10	30	-	-	50
16.	30	40	40	-80	30	50	20	40	90	120	[110]	90
17.	50	-40	60	20	30	0	0	-50	-	40	80	110
18.	-120	-120	-50	-50	-100	10	-10	30	70	[70]	80	80
19.	60	80	100	110	120	130	150	150	140	[150]	100	70
20.	30	40	50	60	50	60	60	50	50	60	-	[70]
21.	70	70	60	90	80	60	50	90	70	50	[50]	60
22.	40	40	50	50	50	60	70	50	30	40	50	[70]
23.	60	100	120	70	150	120	90	60	0	-90	[40]	[40]
24.	80	70	90	90	-50	60	80	[70]	-	90	100	110
25.	90	120	130	130	130	120	130	110	130	160	[160]	170
26.	60	50	50	50	50	50	60	80	100	130	130	130
27.	80	60	50	50	50	50	60	90	120	90	[110]	150
28.	100	100	90	70	80	90	90	100	120	140	120	[130]
Means	49	37	41	38	49				70	72	83	83
Number of days	24	26	26	25	24			3	21	23	23	25

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
[-30]	-90	10	-10	50	+S	+S	-50	-90	+S	+S	+S	-
30	50	40	60	40	20	20	40	20	30	40	60	28
80	100	60	70	80	90	80	80	100	80	60	60	-
140	150	130	120	110	100	100	100	80	90	70	50	96
100	100	100	100	100	100	100	100	100	100	100	90	80
120	140	160	160	120	110	90	90	70	70	50	50	90
70	40	40	20	50	90	120	180	150	130	120	120	78
[120]	120	80	90	70	100	120	120	110	0	0	-10	97
+S	20	-20	40	20	-60	100	-60	-80	-120	-120	+S	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-150	-120	-50	-30	40	70	10	0	30	-30	-10	0	-
140	150	170	170	160	140	130	110	40	80	70	100	76
110	130	170	170	130	110	80	80	70	-20	50	20	92
[80]	110	110	100	80	70	40	50	80	60	60	40	-
40	20	-30	-10	100	-50	+S	80	100	-10	120	80	44
120	140	130	90	60	40	40	-60	-100	-150	-150	-130	14
70	80	80	100	70	70	50	50	50	40	50	70	28
10	50	120	60	-20	40	40	30	40	0	20	30	74
120	130	120	130	130	13		120	150	150	110	80	90
60	70	60	70	80	110		50	50	40	80	40	65
110	130	130	140	130	140		120	150	140	70	40	86
50	120	140	150	140	120		80	80	80	100	70	84
130	140	140	140	150	180	160	130	110	120	120	110	105
170	180	160	180	150	120	150	180	150	110	80	70	137
[120]	130	130	140	130	130	150	150	130	120	110	90	103
150	170	210	170	190	180	180	190	180	170	150	130	126
140	150	140	150	150	140	130	120	70	70	70	60	109
84	93	97	99	97	92	98	80	71	54	57	55	
25	26	26	26	26	25	24	26	26	25	25		

March

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	30	50	50	30	0	-30	-50	-50	-30	-50	-50	-10
2.	-60	-50	-30	-60	-30	-10	20	-10	20	20	10	10
3.	30	50	70	60	40	40	50	50	-	[90]	120	150
4.	30	140	130	80	80	20	130	180	120	130	70	[80]
5.	-100	-60	-20	80	+8	+8	+8	-	-	100	140	180
6.	100	50	80	70	40	30	60	60	80	120	140	[130]
7.	0	80	70	80	100	80	130	140	210	190	170	90
8.	40	40	40	40	30	20	30	40	40	40	40	50
9.	130	110	130	120	100	80	70	60	80	80	100	120
10.	60	60	70	60	70	60	70	[60]	-	130	120	110
11.	70	70	70	60	70	100	60	60	40	40	50	50
12.	80	50	40	30	30	130	120	110	120	+8	+8	160
13.	50	60	70	70	140	70	0	30	10	10	30	10
14.	50	50	90	110	70	60	200	+8	+8	+8	+8	+8
15.	160	170	180	180	180	170	190	140	110	90	80	90
16.	130	120	150	150	150	150	110	40	40	40	60	[60]
17.	0	-10	30	20	30	40	50	-	-	90	90	100
18.	50	60	70	80	70	70	80	70	100	80	100	[100]
19.	50	40	40	10	10	-10	-40	-20	10	40	[50]	80
20.	50	50	40	50	60	60	50	70	60	60	60	[70]
21.	-20	-40	0	-60	+8	+8	+8	20	10	20	30	[30]
22.	30	40	40	30	30	10	30	40	-	-	-	[50]
23.	30	0	10	0	0	10	10	20	70	80	[100]	110
24.	60	(70)	+8	+8	+8	(50)	70	-	-	50	60	60
25.	(50)	+8	(30)	(30)	+8	+8	+8	+8	+8	+8	+8	+8
26.	30	30	30	20	30	40	70	60	60	70	70	[70]
27.	+8	40	50	50	50	60	120	80	70	[70]	70	70
28.	290	280	280	270	270	280	(300)	50	30	10	[40]	60
29.	30	50	40	30	30	30	30	40	50	40	50	50
30.	50	40	40	50	30	30	[30]	10	+8	+8	+8	+8
31.	60	50	50	50	50	40	50	60	80	70	-	120
Means	52	56	66	61	64	60	64	54	63	66	72	80
Number of days	29	29	29	29	27	27	27	26	22	26	25	28

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
[-10]	-50	-90	-90	-80	-70	-70	-50	-90	-100	-60	-70	-39
[40]	+S	150	150	130	190	210	140	50	40	30	20	43
180	170	150	170	150	140	150	140	120	170	130	70	108
[110]	130	130	120	110	80	40	30	10	40	20	-50	82
[190]	180	180	170	150	170	190	170	180	180	130	130	-
[+S]	+S	+S	110	130	80	80	70	50	50	20	10	-
[120]	100	30	-180	-230	-100	-40	-20	30	40	40	30	48
[60]	70	60	80	80	-	-	-	80	120	110	100	-
[140]	150	130	100	90	80	80	70	50	60	70	60	94
140	120	90	90	70	80	120	100	130	130	80	70	91
[50]	50	70	70	80	80	60	50	50	70	60	70	63
190	120	90	110	70	50	120	120	60	10	30	20	-
0	30	0	30	60	90	160	50	30	+S	+S	160	-
+S	210	200	190	160	210	210	200	160	160	160	150	-
[70]	60	70	60	90	120	150	150	150	140	150	130	128
60	50	50	70	70	60	50	60	80	70	40	20	78
100	90	100	90	100	120	130	130	100	70	70	80	-
100	110	100	100	80	40	70	60	40	60	50	50	75
80	80	70	70	80	100	80	80	70	90	70	60	50
60	50	50	50	40	30	20	10	0	-30	-20	-20	38
10	20	40	70	60	80	90	100	110	50	40	30	-
70	80	70	70	70	80	70	70	80	50	40	40	-
120	120	120	+S	-S	-70	80	90	110	$\pm S$	$\pm S$	50	-
50	70	70	(120)	+S	70	70	70	50	60	60	60	-
$\pm S$	270	210	+S	260	270	270	(0)	0	20	30	30	-
70	60	50	60	50	50	$\pm S$	$\pm S$	$\pm S$	70	30	30	-
50	40	40	40	40	40	50	50	50	40	50	70	56
60	50	50	50	50	50	40	30	20	-10	30	10	100
30	[-10]	0	0	20	30	40	30	50	40	40	40	33
$\pm S$	30	50	-S	50	70	70	70	70	70	80	90	-
110	100	80	70	60	60	70	70	80	70	50	50	67
83	88	80	71	72	76	92	76	66	63	56	51	
27	29	30	27	29	30	29	28	30	29	29	31	

April

Hour (GMT) Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	50	50	70	50	40	30	-	-	20	30	50	60
2.	+8	20	30	20	20	20	20	90	[0]	20	50	70
3.	20	0	-10	0	10	20	20	30	40	40	[30]	40
4.	(30)	(20)	-	(40)	30	20	[30]	30	30	30	40	40
5.	10	20	20	20	0	10	[0]	20	40	60	60	60
6.	-10	-10	10	20	-20	-20	-10	20	30	30	[40]	[40]
7.	20	10	20	20	20	0	(-20)	-	70	60	70	50
8.	30	30	20	20	20	30	60	40	40	[50]	40	50
9.	10	30	30	30	40	60	70	70	50	[40]	40	(40)
10.	40	60	50	40	50	50	70	80	70	70	50	[40]
11.	30	30	20	20	40	50	80	90	[80]	60	50	40
12.	40	40	0	0	-	30	-	-	-	-	-	(50)
13.	-20	10	30	30	20	40	50	60	50	[40]	50	40
14.	50	50	50	50	-20	0	-	-	50	60	60	70
15.	30	30	30	50	50	60	70	70	80	[80]	70	60
16.	-10	10	40	30	20	30	50	10	10	40	0	30
17.	20	40	50	50	60	70	(80)	(60)	80	80	60	[40]
18.	40	30	30	30	30	40	50	50	50	50	[-10]	-70
19.	50	40	30	30	50	50	70	60	(50)	(50)	50	[50]
20.	30	20	20	20	30	10	40	20	40	[30]	40	40
21.	30	30	40	40	60	70	-	-	80	80	70	80
22.	40	50	50	30	30	40	50	60	60	[40]	10	10
23.	60	60	60	60	50	60	50	60	70	70	[60]	40
24.	40	40	40	50	60	40	50	70	70	50	[60]	50
25.	40	50	50	50	40	60	70	[50]	50	50	40	30
26.	40	50	50	50	70	70	80	80	90	70	[70]	80
27.	-	-	-	-	-	-	-	-	-	-	-	-
28.	-	-	-	-	-	-	-	-	-	-	-	-
29.	-	-	-	-	-	-	-	-	-	-	-	-
30.	-	-	-	-	-	-	-	-	-	-	-	-
Means	28	32	33	32	32	36	49	53	52	51	46	43
Number of days	24	25	25	25	25	26	20	20	24	24	25	24

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
60	50	50	50	60	50	40	30	50	40	± 8	20	-
60	50	40	40	40	30	60	50	20	20	10	20	35
30	(30)	-	-	-	20	20	30	(30)	-	-	-	-
50	40	50	50	30	20	20	10	0	0	0	10	-
70	70	70	70	70	20	-40	-60	-30	-20	-10	-10	22
30	60	70	70	30	30	40	70	70	60	40	30	30
30	30	20	20	30	20	30	20	10	10	10	20	-
30	20	20	20	30	30	30	30	40	40	30	20	32
30	30	30	± 8	± 8	± 8	70	70	70	80	70	40	-
± 8	± 8	± 8	± 8	± 8	± 8	60	50	60	60	30	30	-
40	50	40	40	40	70	70	80	70	60	40	50	52
50	60	50	70	90	30	20	0	-30	-30	-20	0	-
10	-40	20	-10	0	30	40	60	60	60	60	50	31
70	80	80	90	80	50	50	40	40	40	30	40	-
50	50	50	50	50	50	40	50	50	50	30	30	51
-50	-30	-20	-40	-50	-20	-10	-30	0	20	10	0	2
30	40	40	40	40	50	40	50	50	50	50	50	-
20	0	0	40	60	40	50	0	-50	-50	0	20	19
60	50	50	50	50	50	60	50	40	40	40	30	-
40	40	40	40	40	40	40	50	40	40	40	30	34
60	50	50	40	40	30	40	40	30	10	10	30	-
0	10	30	40	40	40	50	60	60	50	50	60	40
50	70	80	50	50	70	70	70	50	50	50	40	58
80	70	50	50	60	80	70	70	60	70	60	50	58
30	40	40	30	40	40	60	80	60	60	50	50	48
70	80	60	70	70	60	60	50	40	60	50	50	63
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
40	40	42	42	43	39	42	39	34	35	30	30	
25	24	24	23	23	24	26	26	25	25	24	25	

May

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	-	-	-	-	-	-	-	-	-	-	-	-
2.	-	-	-	-	-	-	-	-	-	-	-	-
3.	-	-	-	-	-	-	-	-	-	-	-	-
4.	-	-	-	-	-	-	-	-	-	-	-	-
5.	-	-	-	-	-	-	-	-	10	20	20	20
6.	0	10	10	0	0	10	10	10	10	[-30]	-30	-20
7.	-10	-10	-10	-10	-10	0	0	0	-10	-10	0	[-10]
8.	10	10	10	10	10	10	10	[20]	20	20	20	-5
9.	20	20	20	20	20	30	40	30	30	-	[20]	10
10.	10	10	10	10	0	10	20	20	30	30	30	[30]
11.	10	10	10	20	30	10	10	10	10	20	[20]	20
12.	0	0	0	10	0	10	-	-	30	30	30	20
13.	10	10	10	0	0	10	10	[10]	10	10	10	10
14.	0	0	0	10	10	10	10	10	20	[20]	20	(20)
15.	10	10	10	10	10	10	10	20	30	(30)	[20]	20
16.	0	0	0	10	10	0	0	10	10	[0]	20	-10
17.	30	20	20	20	20	20	30	10	0	20	-10	[30]
18.	0	0	0	0	0	0	10	20	30	20	[30]	30
19.	30	30	40	40	30	(30)	-	-	-	-	-	-
20.	10	10	10	30	+5	-5	-	-	60	80	40	30
21.	10	20	0	-20	-20	-20	-10	-20	-20	-20	-20	-10
22.	-	-	-	-5	40	80	90	40	40	20	20	[20]
23.	0	0	10	10	10	30	30	40	40	[30]	30	20
24.	-10	-10	-10	-10	0	0	0	10	10	40	+5	+5
25.	30	30	30	20	20	20	10	20	30	60	70	70
26.	0	0	10	10	10	20	-	-	30	30	30	30
27.	10	10	10	10	20	10	20	10	20	[10]	20	20
28.	0	0	10	30	30	30	20	20	30	30	[20]	20
29.	+5	40	0	0	0	10	30	0	+5	30	+5	50
30.	50	0	20	+5	+5	20	20	20	30	[30]	30	10
31.	40	40	50	40	40	-	-	-	-	-	-	-
Means	11	10	11	11	12	14	18	15	21	21	19	19
Number of days	24	25	25	24	24	23	21	21	24	23	23	22

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
20	20	20	20	20	10	10	10	10	10	10	0	-
0	0	0	0	0	-10	-10	-10	-10	-10	-10	-10	-4
10	10	10	10	10	10	10	10	10	10	10	10	2
-8	-	-	-	-	+8	+8	20	20	20	10	20	-
20	30	30	20	20	20	20	20	20	20	20	20	23
30	20	20	20	20	20	20	10	10	10	10	10	17
20	20	20	10	20	20	20	20	20	10	10	10	16
30	20	20	20	(10)	10	10	10	10	10	10	10	-
20	20	10	10	0	0	0	0	0	0	0	0	7
10	20	20	20	20	10	10	10	10	0	10	10	11
20	20	30	+8	10	10	10	0	0	0	0	-10	11
30	40	50	40	30	30	20	30	30	30	30	30	18
30	50	40	30	20	10	10	10	10	10	10	10	19
30	20	30	30	30	20	20	30	30	30	30	20	19
(60)	50	50	40	20	40	20	20	10	10	10	20	29
20	(30)	30	30	20	20	20	30	20	10	10	10	-
-10	0	0	0	10	10	0	0	0	-10	-10	(40)	-6
20	30	30	30	30	20	20	20	20	20	20	10	-
20	30	20	20	20	10	10	10	10	-10	-10	-10	15
+8	20	-30	20	0	10	0	10	20	30	30	30	-
40	[40]	40	30	30	40	30	40	30	10	10	10	32
30	30	30	30	30	40	30	20	10	10	10	10	-
20	30	30	30	30	20	20	20	20	20	10	10	18
20	+8	40	20	30	20	10	+8	+8	+8	+8	+8	-
[40]	40	30	0	20	30	20	30	20	+8	+8	+8	-
20	10	20	30	30	30	20	40	40	40	30	30	-
-	-	-	-	-	-	-	-	-	-	-	-	-
21	25	24	21	20	18	14	16	15	12	11	11	
23	23	25	24	24	25	25	25	25	24	24	23	

June

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	-	-	-	-	-	-	-	30	40	40	[40]	30
2.	0	0	0	10	20	30	30	30	-	30	(20)	-
3.	40	40	30	20	40	50	70	60	[80]	80	30	10
4.	0	0	0	0	10	10	10	-	40	30	30	30
5.	-8	0	± 8	± 8	± 8	± 8	0	40	70	[100]	60	40
6.	20	20	20	10	20	20	20	10	10	10	[20]	10
7.	10	10	0	0	10	10	10	10	10	20	20	10
8.	10	10	10	20	20	20	20	10	20	10	10	[20]
9.	20	20	20	20	30	20	-	-	50	50	50	50
10.	20	10	0	0	0	0	20	30	40	[40]	40	30
11.	0	0	0	0	10	30	40	40	50	[50]	50	40
12.	-	-	-	-	-	-	-	-	-	-	-	-
13.	-	-	-	-	-	-	-	-	-	-	-	-
14.	-	-	-	-	-	-	-	-	-	-	-	-
15.	-	-	-	-	-	-	-	-	-	-	-	-
16.	-	-	-	-	-	-	-	-	-	-	-	-
17.	-	-	-	-	-	-	-	-	-	-	-	-
18.	-	-	-	-	-	-	-	-	-	-	-	-
19.	-	-	-	-	-	-	-	-	-	-	-	-
20.	-	-	-	-	-	-	-	-	-	-	-	-
21.	-	-	-	-	-	-	-	-	-	-	-	-
22.	-	-	-	-	-	-	-	-	-	-	-	-
23.	-	-	-	-	-	-	-	-	-	-	-	-
24.	-	-	-	-	-	-	-	-	[50]	40	30	30
25.	20	10	10	10	10	20	20	20	20	30	20	([30])
26.	10	20	10	10	20	20	30	40	40	40	40	[30]
27.	-	-	-	-	-	-	70	70	60	50	40	[30]
28.	40	40	30	30	30	40	40	50	50	40	[30]	30
29.	10	10	10	10	10	20	30	[+8]	-	-	-	-
30.	(10)	-	-	-	-	-	-	-	-	60	60	40
Means	15	14	11	11	18	22	29	34	42	42	36	29
Number of days	13	14	13	13	13	13	14	13	15	17	16	15

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
20	20	30	30	30	20	20	10	10	10	10	10	-
-	-10	30	30	20	20	± 8	± 8	± 8	100	60	70	-
± 8	20	20	30	0	± 8	10	10	10	20	10	0	-
20	20	20	± 8	± 8	± 8	(10)	20	0	-50	-70	-60	-
20	20	20	20	20	20	20	20	20	20	20	20	-
20	10	20	10	10	0	20	20	20	10	10	10	15
[10]	10	10	20	20	20	20	10	30	30	20	10	14
20	20	20	30	30	40	30	30	30	40	30	30	22
50	50	50	50	50	40	40	40	30	30	30	30	-
20	20	20	20	20	10	10	20	10	10	20	10	18
40	40	30	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	30	20	20	20	10	20	10	20	20	10	-
20	10	10	10	10	10	10	20	20	10	10	10	15
30	30	20	20	10	10	20	20	-	-	-	-	-
-	-	-	-	-	-	(40)	30	20	30	30	30	-
20	20	20	10	10	10	10	20	20	20	10	10	26
-	-	-	± 8	-50	20	20	20	30	30	10	10	-
40	30	40	40	40	30	30	40	40	30	20	20	-
26	21	24	24	16	19	19	22	20	23	15	14	
14	16	16	14	15	14	14	16	15	16	16	16	

July

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	20	20	20	20	20	20	30	30	40	[40]	40	40
2.	20	20	30	10	10	30	20	30	[40]	40	30	±S
3.	-	-	-	-	-	-	-	-	-	-	-	-
4.	0	10	10	10	10	20	20	20	20	20	20	[20]
5.	20	10	10	10	10	10	10	10	10	10	[10]	10
6.	30	20	30	30	30	40	30	40	20	20	10	[10]
7.	10	30	10	0	30	10	-	-	20	30	20	20
8.	10	10	10	10	10	20	30	-	-	[30]	20	-
9.	0	0	0	0	0	10	10	20	30	(40)	40	30
10.	20	20	10	20	20	30	30	30	40	[10]	10	20
11.	20	20	20	20	20	30	20	10	10	-10	10	([10])
12.	10	0	10	10	10	20	20	30	40	40	40	[30]
13.	30	40	40	30	30	40	30	40	30	30	20	20
14.	20	20	20	20	30	30	-	-	40	40	40	40
15.	10	10	10	10	0	10	10	30	40	[40]	40	40
16.	10	10	20	20	20	30	40	50	50	[50]	50	40
17.	10	10	20	10	10	20	30	30	30	[30]	30	30
18.	0	0	0	10	10	20	30	30	30	[20]	30	30
19.	-30	-40	-30	0	-20	-10	-10	-30	±S	±S	±S	±S
20.	0	0	10	20	0	10	30	40	50	40	[30]	30
21.	30	30	40	40	40	50	-	-	50	50	40	40
22.	20	30	20	10	20	30	40	[40]	40	50	50	50
23.	20	20	20	20	20	30	30	[30]	[30]	10	10	20
24.	-10	0	-20	-8	+8	-20	-20	-10	-10	30	20	+S
25.	-	-	-	-	-	-	-	50	130	80	40	30
26.	30	30	20	10	20	30	[30]	[30]	40	50	40	30
27.	-	-	-	-	-	-	-	80	130	110	90	70
28.	0	10	10	10	20	40	30	-	40	40	40	40
29.	10	10	10	20	30	40	[40]	[50]	50	50	40	30
30.	-	-	-	-	-	-	-	40	50	40	30	30
31.	10	0	10	10	30	30	40	[40]	50	40	30	20
Means	12	13	13	15	17	23	24	30	41	37	32	31
Number of days	27	27	27	26	26	27	24	25	28	28	29	25

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
30	30	30	40	30	20	30	30	30	30	20	20	28
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	20	10	10	10	10	10	0	0	0	-
30	10	10	10	10	20	20	20	30	20	10	10	16
10	20	10	20	30	30	30	30	30	40	40	30	19
10	-10	0	0	10	20	20	20	10	10	60	10	20
10	+8	+8	20	30	30	30	30	20	20	20	10	-
-	-8	20	10	10	20	30	10	0	0	10	10	-
30	40	30	20	30	30	30	40	40	20	20	10	21
10	10	-10	10	0	60	30	20	30	20	20	20	20
80	10	20	10	10	30	30	40	20	10	20	20	20
20	20	10	30	30	30	30	40	40	30	30	40	25
20	20	20	30	20	[10]	10	20	30	30	20	10	26
30	40	30	40	30	30	20	20	30	20	20	20	-
40	40	40	40	30	30	30	30	20	20	10	10	25
40	40	30	20	20	30	30	30	20	10	10	10	28
20	20	20	20	10	10	10	20	10	10	0	0	17
10	10	10	0	0	10	10	20	10	-10	-30	0	10
20	10	0	-10	-20	+8	+8	+8	-30	-20	-10	-10	-
10	30	30	30	30	40	10	50	40	40	40	30	28
40	40	30	40	40	10	30	50	40	30	20	10	-
-	-	-	40	30	20	10	10	10	20	20	20	-
0	-10	-10	0	0	-10	0	0	0	0	0	-10	-
-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	10	10	10	10	20	30	40	40	30	30	-
30	30	20	30	-	-	-	-	-	-	-	-	-
40	30	20	20	20	20	20	30	20	20	0	0	-
40	40	40	40	30	30	30	40	30	30	20	10	29
20	20	10	10	20	-	-	-	-	-	-	-	-
30	20	10	-10	-30	-10	-10	0	0	0	0	0	-
10	-60	-50	-8	-8	20	20	30	30	20	30	30	-
25	19	15	19	16	22	22	25	21	17	16	13	
26	25	26	28	27	26	26	26	27	27	27	27	

August

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	10	10	10	0	10	30	40	[20]	40	50	30	20
2.	-	-	-	-	-	-	-	80	180	140	90	60
3.	-	-	-	-	-	-	-	110	200	150	(90)	-
4.	-	-	-	-	-	-	-	-	50	40	30	30
5.	20	20	20	30	30	40	[30]	30	30	20	20	20
6.	-	-	-	-	-	-	-	50	30	20	10	10
7.	-	-	-	-	-	-	-	20	20	10	10	10
8.	10	10	20	10	20	30	[40]	[30]	40	30	30	30
9.	-	-	-	-	-	-	-	-	-	-	-	-
10.	-	-	-	-	-	-	-	-	-	-	-	-
11.	-	-	-	-	-	-	-	[20]	20	10	10	20
12.	20	20	20	20	20	30	-	-	10	0	-10	-20
13.	-	-	-	-	-	-	-	30	40	20	10	0
14.	10	10	10	20	20	[30]	[30]	40	40	50	50	50
15.	20	10	20	10	10	[10]	[10]	20	20	30	30	20
16.	20	20	20	20	20	20	30	[20]	20	10	20	20
17.	30	30	20	10	10	20	30	[30]	30	30	30	30
18.	30	20	30	30	30	30	-	-	40	30	30	30
19.	15	20	-	-	-	-	-	-	-	-	-	-
20.	-	-	-	-	-	-	-	30	[30]	30	20	30
21.	20	20	20	10	30	40	40	40	[60]	60	40	40
22.	20	20	20	30	30	30	30	30	-	-	[20]	20
23.	30	40	40	40	30	40	30	30	-10	-10	0	20
24.	-	-	-	-	-	-	-	20	30	40	30	30
25.	10	10	20	30	30	30	-	-	70	80	70	60
26.	20	20	40	20	20	40	10	40	50	50	[50]	50
27.	50	40	40	20	20	20	20	20	20	-	-	-
28.	20	10	0	10	±8	+8	-40	50	[40]	±8	+8	50
29.	-	-	10	+8	±8	10	20	50	40	50	[60]	40
30.	40	40	20	10	20	10	20	20	20	40	20	[40]
31.	10	10	10	10	10	20	20	20	20	[20]	10	10
Means	22	20	21	18	21	27	23	35	44	40	28	28
Number of days	18	19	19	18	17	18	16	24	27	25	25	26

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
-10	-10	-10	-10	0	-	-	-	-	-	-	-	-
30	20	20	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	40	40	30	30	20	20	30	20	20	30	-
20	30	20	30	20	-	-	-	-	-	-	-	-
10	10	-	-	-	-	-	-	-	-	-	-	-
20	10	10	10	10	10	10	20	20	10	10	10	-
30	30	30	20	10	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
30	+8	+8	+8	+8	40	30	30	20	20	20	20	-
-20	-30	-60	-60	+8	+8	-8	30	70	-	-	-	-
20	20	10	10	20	20	20	20	20	20	20	20	-
40	50	60	40	40	30	20	20	20	10	20	20	30
10	10	10	10	10	10	20	20	20	20	30	20	17
20	20	10	10	10	20	20	20	20	20	30	30	20
30	-8	-8	+8	70	+8	+8	30	30	20	20	30	-
20	30	40	60	+8	-	-	-40	10	+8	-8	+8	-
-	-	-	-	-	-	-	-	-	-	-	-	-
20	20	20	20	30	20	20	20	20	20	20	20	-
40	40	30	20	20	20	20	20	20	20	20	20	30
-80	-70	-30	-40	-10	10	40	40	40	40	40	40	-
-8	-	-	-	-	-	-	-	-	-	-	-	-
30	30	30	-8	+8	+8	+8	0	0	-20	-10	-10	-
40	50	50	40	40	40	50	50	50	40	40	40	-
50	50	50	40	50	50	50	40	50	50	50	50	41
-	[10]	10	10	10	20	10	50	0	20	20	40	-
50	40	-	-	-	-	-	-	-	-	-	-	-
40	40	50	50	50	40	50	50	50	50	50	40	-
40	20	40	20	20	20	20	20	40	40	20	20	26
10	10	20	20	20	20	50	40	20	20	20	20	18
21	19	20	17	24	25	28	25	28	23	24	26	
25	24	22	20	19	16	16	20	20	18	18	18	

September

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	20	10	20	40	40	40	-	-	40	50	50	40
2.	10	10	20	10	10	20	[20]	30	30	40	40	30
3.	10	20	20	30	30	20	-	-	[40]	40	30	10
4.	30	20	20	± 8	± 8	-8	20	30	30	30	[20]	40
5.	20	20	20	20	20	20	30	40	[50]	[40]	40	40
6.	30	20	20	30	20	30	30	40	40	50	[60]	50
7.	20	10	10	20	30	20	40	40	30	40	[30]	30
8.	0	0	0	10	10	10	-	-	70	60	40	30
9.	0	-10	10	20	20	30	60	[50]	60	60	60	60
10.	-20	-8	30	-40	0	-20	10	-10	[-10]	[-10]	0	0
11.	10	0	20	20	10	20	30	80	140	[80]	70	60
12.	50	40	40	40	50	40	40	40	[40]	40	50	40
13.	10	10	10	10	20	30	[40]	40	40	40	30	30
14.	40	30	40	50	50	60	[40]	[40]	40	30	30	40
15.	20	30	10	20	30	30	-	-	40	50	50	50
16.	30	40	40	40	40	40	40	40	[40]	30	40	30
17.	40	30	30	40	40	40	20	20	[30]	(40)	50	50
18.	50	40	50	50	70	60	60	60	[50]	20	10	30
19.	20	30	30	30	40	50	60	70	60	[70]	60	60
20.	20	20	20	20	20	30	[40]	40	30	40	40	40
21.	20	30	30	30	40	40	40	[40]	40	50	50	50
22.	30	30	30	30	40	40	-	-	40	40	30	30
23.	30	30	20	20	20	30	40	40	[40]	40	40	40
24.	30	30	20	30	30	40	50	50	50	50	[50]	-
25.	30	20	20	10	20	30	40	50	50	[50]	50	60
26.	20	20	30	30	20	10	10	[0]	20	20	0	-30
27.	40	30	30	40	30	30	[50]	40	40	50	50	50
28.	20	10	10	20	30	30	40	40	40	50	50	[50]
29.	20	10	20	30	40	-	-	-	-	30	30	40
30.	30	30	20	10	20	30	40	50	50	[50]	[40]	40
Means	23	21	23	24	29	30	37	40	43	42	40	38
Number of days	30	29	30	29	29	28	24	24	29	29	30	29

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
30	40	30	20	30	20	30	30	20	20	20	20	-
20	30	30	30	40	30	30	40	30	30	20	20	26
10	0	10	20	30	40	30	30	30	20	20	30	-
40	30	30	20	20	30	40	40	40	20	30	30	-
40	30	30	30	30	30	40	30	40	40	30	30	32
40	30	30	30	20	20	10	20	30	30	20	20	30
20	20	30	40	30	30	20	-	-50	-10	-10	10	20
30	30	30	30	20	20	20	40	40	20	20	10	-
50	60	70	60	40	40	40	10	10	10	90	-10	37
10	-20	-20	-10	10	10	20	20	30	20	10	10	1
60	50	50	30	30	30	40	40	30	40	40	50	43
40	30	30	30	30	20	10	20	20	10	10	20	33
30	30	40	30	40	40	30	30	30	40	40	30	30
40	10	40	40	30	30	30	30	30	30	30	30	37
40	(30)	(40)	30	40	30	30	10	10	10	20	30	-
20	20	20	20	10	30	40	30	20	10	30	30	32
50	40	40	40	40	50	50	30	60	30	50	50	40
40	10	0	0	-20	20	50	50	50	30	20	20	34
50	50	60	50	40	30	40	40	50	40	40	30	46
40	40	40	40	30	30	40	40	30	30	40	20	33
50	50	40	50	40	50	40	40	40	40	40	40	41
30	40	50	40	30	40	40	40	40	40	40	40	-
40	40	40	30	30	40	30	20	20	10	30	30	31
-	-	40	40	40	50	50	50	50	30	40	40	-
70	70	80	60	60	80	60	50	40	40	30	30	46
0	20	30	20	20	40	50	40	40	50	50	50	23
60	60	60	50	50	50	40	30	40	30	20	10	41
50	50	40	40	40	40	40	50	50	40	40	40	38
40	40	30	30	30	30	40	50	40	40	40	40	-
40	50	50	70	60	60	50	50	50	40	30	40	42
37	35	36	34	31	35	36	34	32	29	31	28	
29	28	29	30	30	30	30	29	30	30	30	30	

October

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	30	40	30	30	30	40	40	50	40	50	[40]	50
2.	20	30	30	30	50	60	50	50	[50]	70	60	50
3.	40	40	40	40	40	50	40	40	50	50	60	[50]
4.	30	20	20	20	20	40	[40]	40	40	50	50	60
5.	30	30	30	20	30	40	40	50	[70]	[50]	50	60
6.	30	20	20	20	30	30	40	-	-	-	40	30
7.	40	30	40	40	30	40	30	[30]	40	40	40	40
8.	10	30	30	10	10	20	20	[30]	20	10	30	10
9.	30	30	30	40	40	40	50	60	[60]	60	60	50
10.	10	20	20	30	30	30	50	[70]	60	40	50	40
11.	10	20	40	30	50	40	40	[50]	40	40	40	50
12.	10	20	-10	-10	0	-10	20	30	[40]	50	40	40
13.	30	20	30	30	30	40	40	-	-	[40]	40	50
14.	0	10	10	0	10	20	-10	-10	0	30	30	30
15.	-20	-10	0	30	20	20	50	[40]	[40]	40	50	60
16.	0	20	10	20	30	20	40	40	20	[20]	30	40
17.	40	40	50	50	40	30	30	50	60	[70]	80	70
18.	40	30	30	20	30	40	50	[40]	50	50	40	30
19.	50	50	40	40	30	40	30	30	10	-10	20	[20]
20.	30	30	50	-10	10	20	30	-	-	40	40	40
21.	0	20	20	20	30	0	50	70	+8	120	50	40
22.	-	-	-	-	-	-	-	-	-	-	[10]	-50
23.	40	30	30	20	10	10	10	[10]	[0]	50	+8	+8
24.	40	30	30	40	50	60	60	70	70	70	[60]	70
25.	30	30	40	30	20	30	40	-	-	-	-	60
26.	40	30	50	60	60	50	40	30	30	30	[40]	40
27.	-40	-60	-50	0	20	10	10	-	-	0	-10	0
28.	20	20	20	20	40	30	40	50	70	70	60	[40]
29.	40	50	40	40	40	40	70	70	40	30	40	[50]
30.	10	10	10	0	0	-10	0	0	30	40	30	40
31.	30	30	20	30	40	40	40	70	70	60	60	[40]
Means	22	24	25	25	29	30	36	42	42	45	42	40
Number of days	30	30	30	30	30	30	30	25	24	28	29	30

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
60	60	70	50	50	60	60	30	40	30	40	40	44
50	50	50	50	50	50	50	70	50	50	50	50	49
50	50	40	40	50	50	70	60	50	50	50	50	48
50	50	50	50	50	50	60	50	50	50	50	40	43
70	80	60	50	40	40	50	50	40	40	30	30	45
40	50	50	40	40	30	20	30	40	40	50	40	-
50	40	50	40	40	50	50	40	40	30	20	10	38
30	30	40	40	40	40	50	50	50	40	40	30	30
50	50	40	40	40	40	30	30	30	20	20	10	40
40	40	40	40	40	30	0	20	30	20	30	30	34
50	50	40	40	40	40	30	30	50	0	30	20	36
50	40	30	30	40	40	50	50	40	30	20	30	28
40	40	30	40	30	30	30	20	20	20	0	0	-
[40]	40	30	40	30	20	20	30	10	0	0	-10	15
50	40	30	40	30	30	30	30	10	0	-10	10	25
50	50	60	50	40	50	50	60	60	60	40	40	38
60	70	50	60	80	80	60	50	40	30	40	40	53
40	40	70	70	80	70	60	60	50	30	30	70	47
20	20	-30	+8	-40	-20	-10	-20	-80	-90	-10	40	6
50	60	30	30	20	20	-8	-40	0	10	0	+8	-
[60]	60	70	60	60	70	60	70	50	20	20	-8	46
10	50	50	70	80	50	50	50	40	40	40	40	-
+8	+8	+8	+8	+8	+8	30	20	10	-30	40	40	-
60	50	50	50	70	70	80	80	70	70	40	30	57
60	60	60	50	60	50	40	40	40	40	50	40	-
50	70	40	30	-10	60	80	70	30	40	20	-20	40
10	10	0	0	-10	-10	-20	0	10	0	0	10	-
40	30	30	50	30	50	60	70	40	40	40	40	42
50	50	60	40	60	80	70	50	20	30	20	30	46
[50]	60	60	60	40	30	30	30	40	30	30	30	27
[40]	40	50	60	50	60	70	60	50	30	40	40	47
46	48	43	45	41	44	44	40	33	25	28	29	
30	30	30	29	30	30	30	31	31	31	31	29	

November

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	50	20	10	20	30	30	40	80	70	60	50	[50]
2.	-10	-10	20	20	20	20	20	30	30	40	20	± 5
3.	10	20	30	40	40	50	60	-	-	80	80	80
4.	40	30	40	40	40	40	60	[60]	[60]	60	60	50
5.	20	30	30	30	40	40	60	[60]	[70]	50	50	40
6.	40	30	30	20	30	40	30	40	50	30	[40]	40
7.	-	-	-	-	-	-	-	-	-	-	-	-
8.	20	30	20	20	30	40	50	50	60	50	40	[30]
9.	70	60	50	40	30	20	30	30	30	50	50	[60]
10.	10	10	0	-20	-10	-10	0	10	0	10	10	-
11.	0	30	60	120	120	110	130	80	70	40	[40]	30
12.	20	40	30	30	30	30	20	10	20	20	30	40
13.	120	90	90	80	70	30	40	30	30	30	[20]	10
14.	-10	-10	-10	-10	-10	-10	-10	-10	-10	0	10	30
15.	10	20	30	10	30	30	30	30	40	30	30	30
16.	0	-10	0	0	0	0	0	0	30	30	[30]	30
17.	20	40	40	30	10	10	30	[10]	-	20	40	30
18.	0	10	20	30	20	30	30	30	30	20	30	[40]
19.	80	70	80	60	80	70	80	80	30	20	20	0
20.	0	-10	-10	-10	0	0	0	0	10	0	0	0
21.	10	10	30	30	40	40	40	20	40	10	0	0
22.	0	0	0	0	0	0	0	0	0	10	0	0
23.	0	10	0	-10	0	0	0	-10	0	0	0	[10]
24.	0	-30	-20	-20	-30	-40	-50	-	-120	-100	-20	20
25.	30	40	40	40	40	60	80	120	[120]	(100)	80	80
26.	120	170	140	140	140	180	130	100	140	80	[70]	-
27.	20	20	-10	10	10	-10	0	40	60	50	[50]	60
28.	60	40	40	30	30	20	30	(30)	40	[60]	[60]	60
29.	10	20	30	30	30	30	[50]	30	30	20	40	30
30	40	50	50	50	60	60	40	70	[60]	20	40	30
Means	27	28	30	29	32	31	35	38	37	28	33	34
Number of days	29	29	29	29	29	29	29	26	27	28	29	26

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
60	70	50	30	10	20	10	10	10	0	-20	0	32
60	30	50	70	80	90	70	10	0	10	10	10	30
70	80	70	70	60	70	60	70	60	60	50	50	-
50	60	70	60	80	80	70	50	60	50	40	30	49
40	50	40	50	60	70	60	50	40	50	40	40	46
40	40	60	40	50	50	50	30	40	-	-	-	-
[30]	50	50	50	60	60	70	80	70	70	30	20	-
40	50	50	50	40	60	80	80	90	80	70	60	50
70	60	50	60	70	50	50	50	20	20	20	10	44
10	30	30	30	0	10	-10	0	30	30	0	-10	7
50	40	40	40	30	30	40	50	30	10	0	30	51
[40]	40	30	30	30	20	40	90	130	70	80	80	42
10	10	-10	-10	-10	0	0	0	0	0	0	-10	26
40	60	50	30	30	20	10	10	10	10	10	10	10
30	40	30	20	20	20	20	10	10	0	0	0	22
60	40	30	30	60	30	50	120	80	70	80	40	33
0	30	0	10	20	20	10	10	10	0	-10	-10	16
30	30	40	60	40	30	20	30	30	40	40	80	32
10	10	0	0	0	0	0	0	-10	0	-10	0	28
-10	0	0	10	0	0	10	0	10	20	20	10	2
0	0	0	0	0	0	0	0	0	0	0	-10	11
0	10	0	10	0	10	0	10	10	10	10	0	3
20	10	20	30	20	30	30	0	0	0	0	-10	6
30	50	60	60	50	50	30	40	40	80	70	40	8
80	70	80	80	70	90	80	90	110	120	120	110	80
90	120	80	30	-10	-50	-20	-10	-10	10	0	20	72
60	70	70	80	80	70	80	70	70	60	70	60	48
60	60	50	40	40	40	10	10	10	0	10	10	35
40	50	40	-40	40	30	10	0	30	50	50	40	29
70	80	50	30	100	80	120	100	0	-10	-100	-60	43
39	45	39	35	37	36	35	35	33	31	23	22	
30	30	30	30	30	30	30	30	30	29	29	29	

December

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
1.	-50	40	80	70	30	70	40	-	-	30	20	30
2.	10	10	20	20	30	-10	40	40	30	[30]	60	60
3.	70	70	50	50	80	80	70	90	120	100	-	80
4.	160	140	130	140	150	130	130	130	120	60	[40]	130
5.	100	70	80	80	90	110	130	110	130	160	140	[130]
6.	50	80	40	30	30	30	30	50	60	70	80	50
7.	80	90	40	60	80	50	80	70	120	[80]	60	70
8.	70	30	30	30	30	40	30	-	-	-10	10	10
9.	-20	-20	-20	-10	-20	-10	-20	-30	[-20]	-50	-20	-20
10.	10	10	20	20	30	10	30	30	[30]	10	20	30
11.	10	10	10	20	20	10	0	0	-10	0	[10]	30
12.	30	20	20	30	20	0	10	10	20	40	50	[40]
13.	60	50	60	50	40	50	40	40	40	30	0	[10]
14.	10	10	0	10	0	20	30	40	40	-	30	40
15.	120	0	10	-40	40	20	±8	-	-	-30	-30	20
16.	30	-10	-40	-30	-30	-20	-50	-30	0	60	-	50
17.	20	20	20	30	20	20	40	70	80	80	100	[90]
18.	30	30	20	±8	30	40	40	60	60	0	-60	[-10]
19.	-70	-70	-60	10	70	80	60	-8	70	40	[50]	70
20.	10	20	40	30	30	40	60	50	70	60	70	[70]
21.	±8	-8	0	0	10	-8	-20	30	40	[50]	30	50
22.	-	-	-	-	-	-	-	-	-	20	-10	30
23.	10	20	20	20	30	40	30	40	40	50	70	[70]
24.	30	40	30	20	20	±8	±8	0	10	30	[50]	40
25.	50	60	60	70	60	50	50	70	80	80	[70]	80
26.	50	30	20	30	30	40	40	50	60	70	50	[80]
27.	60	±8	±8	30	40	80	±8	±8	0	0	30	[60]
28.	30	30	30	20	30	40	50	40	20	100	60	[70]
29.	40	-10	-8	-8	-50	-20	-10	-10	10	50	-	70
30.	30	30	40	40	40	20	40	70	[40]	40	40	(40)
31.	80	90	40	60	60	40	60	70	[80]	90	90	30
Means	38	32	28	33	35	38	23	44	50	45	40	52
Number of days	29	28	28	28	30	28	27	25	27	30	28	30

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
30	20	10	30	40	20	10	40	20	40	30	30	-
60	50	50	60	40	40	50	50	50	60	80	70	42
90	90	80	70	70	80	100	80	120	100	110	130	86
80	70	70	50	80	110	120	160	120	50	40	100	105
120	90	60	70	80	110	50	50	20	100	80	30	91
40 [110]	70	80	10	20	70	70	90	110	80	110		61
40	30	10	70	80	60	50	20	40	80	50	70	62
0	-20	-10	0	-10	-20	-20	-10	-10	0	0	-20	-
-10	0	-10	0	-30	-20	-10	-20	-10	-10	0	0	-16
40	30	20	30	40	40	50	60	50	40	70	50	32
30	20	30	30	40	60	50	40	60	40	40	20	24
50	40	50	60	60	70	80	90	70	80	50	50	43
20	30	30	40	10	10	20	0	30	30	10	0	29
50	50	40	40	70	80	70	60	50	20	40	10	35
70	40	30	50	70	90	50	30	40	50	30	0	-
70	70	60	50	50	70	70	60	50	70	30	20	26
80	50	80	70	80	80	80	70	50	60	50	40	58
-70	-30	-10	50	60	50	70	80	60	70	30	-20	25
80	70	70	80	80	60	60	40	50	40	40	40	43
60	60	50	30	20	40	40	30	20	40	40	± 8	43
50	50	60	60	80	70	50	50	60	-	-	-	-
50	40	60	70	80	80	80	80	40	100	80	40	-
60	60	50	30	30	20	10	10	30	40	40	40	36
40	20	-20	-100	10	30	30	30	30	10	40	60	-
100	100	90	80	70	80	80	80	70	70	80	50	72
[80]	40	30	50	70	20	-10	50	± 8	± 8	90	90	-
70	20	-10	30	60	60	70	60	50	40	40	30	-
60	70	70	60	50	70	70	60	50	40	40	30	50
90	90	80	80	70	70	80	90	80	60	40	30	-
(40)	30	20	40	30	10	20	40	30	30	40	40	35
90	80	70	80	90	100	90	80	90	70	70	60	73
54	47	41	46	51	54	53	53	50	53	49	41	
30	31	31	31	31	31	31	31	30	29	30	29	

I. Hourly means of the

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
January												
1.	30	40	+S	+S	30	40	60	40	30	[30]	40	30
2.	-20	30	40	60	80	80	+S	30	60	60	[40]	60
3.	-90	0	10	20	30	60	60	70	80	[90]	90	90
4.	40	30	30	10	40	30	30	30	0	60	60	60
5.	40	60	40	70	20	0	40	(30)	-	60	20	40
6.	+S	+S	20	30	30	40	40	50	50	50	[60]	40
7.	-S	40	60	30	40	40	-30	-10	-S	-10	[-40]	-50
8.	50	50	50	40	50	40	50	60	[60]	50	50	60
9.	50	40	0	40	-S	+S	-S	-S	-10	[70]	50	40
10.	50	40	50	30	50	50	40	30	30	50	30	+S
11.	-30	40	+S	+S	+S	-S	+S	+S	+S	+S	(+S)	-
12.	-	-	-	-	-	-	-	-	+S	150	[100]	(90)
13.	30	(40)	-	-	-	-	-	-	(20)	80	80	90
14.	80	40	40	40	60	40	30	60	[100]	90	80	80
15.	+S	+S	+S	+S	-60	+S	+S	70	+S	+S	+S	30
16.	110	140	120	80	70	70	30	-20	110	40	0	40
17.	60	80	70	10	-20	-10	10	-40	[-70]	[-70]	-90	-60
18.	-70	-90	-90	-100	-40	-90	-110	-120	-90	-70	[-40]	[-40]
19.	0	0	-40	-40	-20	10	0	-30	-60	-	[10]	20
20.	-60	-70	-30	-50	-60	-50	-20	0	20	10	[20]	30
21.	50	80	70	80	20	10	30	40	40	30	[30]	50
22.	130	100	70	50	100	90	80	80	80	90	90	[70]
23.	0	0	-10	-10	-30	30	50	80	80	80	[100]	70
24.	-50	-50	-80	-40	-70	-70	-10	20	20	[70]	100	130
25.	50	30	-10	-10	-10	-10	-30	-60	-90	130	-	130
26.	120	90	0	20	-10	20	60	40	-	70	60	70
27.	40	40	40	50	50	60	50	70	100	130	[+S]	120
28.	50	50	60	50	50	70	70	70	100	60	[50]	80
29.	20	20	30	30	30	30	-S	50	+S	+S	[50]	30
30.	20	30	30	-10	0	20	30	40	50	50	70	[70]
31.	80	70	80	80	70	100	120	220	90	80	60	70
Means	29	34	25	22	19	27	23	33	34	57	43	52
Number of days	27	27	26	26	27	26	24	26	23	27	27	28

potential gradient for 1987

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
40	30	40	30	30	-100	-100	10	-5	0	10	20	-
60	60	60	60	90	90	80	70	70	60	30	0	54
90	90	100	90	90	130	160	160	120	90	80	40	73
[60]	60	70	70	60	80	90	80	70	80	70	60	53
30	50	30	0	40	40	50	20	40	50	-5	40	-
50	50	40	40	50	50	50	50	40	50	+5	+5	-
-80	-90	-50	-10	0	40	50	50	60	80	90	70	-
70	60	70	70	80	90	70	60	50	60	50	50	58
30	60	30	0	40	40	-5	-5	70	50	50	50	-
+5	[200]	150	120	150	120	150	170	160	100	30	-30	80
-	-	-	-	-	-	-	-	-	-	-	-	-
40	10	-10	20	40	60	60	70	60	30	40	30	-
[110]	90	70	90	100	70	90	130	130	90	80	70	-
60	60	80	90	+5	170	-5	-5	+5	+5	+5	+5	-
40	70	40	80	90	70	140	150	30	-20	40	30	-
[80]	110	80	90	90	80	40	20	80	110	80	90	73
-80	-80	-110	-70	-40	-40	-40	-60	-70	-60	-110	-90	-41
60	+5	-5	+5	+5	-10	-10	10	30	30	40	20	-
20	10	20	40	50	60	30	-10	-20	-10	10	-40	0
30	40	70	70	70	40	70	70	60	80	70	90	21
60	100	110	80	40	70	60	80	30	10	120	30	55
70	80	80	60	40	+5	40	30	30	20	10	0	65
30	110	140	130	90	100	60	100	120	90	+5	-60	59
180	170	170	130	90	130	160	90	120	90	70	70	60
130	140	130	140	140	130	180	190	160	110	40	110	75
70	60	70	-5	+5	70	+5	+5	+5	30	40	40	-
90	120	90	90	70	90	90	60	50	70	70	70	74
110	120	140	100	70	70	80	60	50	60	60	40	72
30	+5	50	120	+5	+5	+5	50	50	50	60	50	-
90	110	140	120	100	80	90	120	110	110	110	90	70
110	[30]	70	90	110	120	120	130	140	100	100	110	98
58	69	68	69	68	69	72	73	68	56	52	38	
29	28	29	28	26	28	26	27	27	29	26	28	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
February												
1.	120	60	70	60	60	60	50	50	70	90	90	-
2.	70	60	50	40	20	30	30	-	-	60	70	70
3.	20	40	10	-20	-40	-60	-80	-20	-40	20	70	90
4.	50	60	40	50	50	60	60	50	50	60	110	110
5.	80	70	90	70	60	60	70	70	70	120	[90]	90
6.	60	50	50	40	50	60	60	70	70	70	[120]	130
7.	30	-20	-50	50	80	110	140	150	70	60	30	30
8.	40	30	30	30	40	50	50	50	70	90	[120]	-
9.	-90	-S	-S	-S	30	50	30	[30]	-	[80]	90	80
10.	80	80	80	70	70	80	120	150	140	80	[70]	80
11.	40	30	10	30	60	70	30	-40	-30	30	[30]	80
12.	50	40	50	50	50	40	40	50	80	90	[110]	140
13.	70	0	30	60	70	0	-30	-20	50	40	70	[80]
14.	80	100	80	50	60	50	50	50	50	70	70	90
15.	20	-10	-10	30	30	20	40	40	50	40	50	[60]
16.	30	20	20	50	70	70	60	[60]	(60)	60	50	40
17.	20	30	20	20	30	30	30	30	30	40	[30]	30
18.	40	10	-10	-80	-20	-S	-140	-90	-S	-50	110	60
19.	30	30	40	60	40	70	80	70	70	60	[80]	50
20.	30	10	30	-60	-S	+S	+S	-40	-40	-S	[0]	10
21.	10	20	20	20	20	20	30	30	30	(40)	(40)	60
22.	60	50	50	60	50	40	40	40	40	40	40	-
23.	30	30	40	30	30	10	-10	30	-	-S	-30	50
24.	30	50	50	50	50	40	50	(50)	(50)	50	[60]	60
25.	20	30	30	30	40	50	50	50	60	70	[70]	60
26.	40	40	40	40	40	40	40	50	50	(50)	[50]	60
27.	20	30	20	30	30	30	20	30	20	0	[30]	30
28.	30	0	10	40	50	50	-S	-S	50	20	-S	50
Means	40	35	33	33	41	43	35	38	46	54	65	68
Number of days	28	27	27	27	27	26	26	25	22	24	26	25

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
130	130	140	120	90	90	80	90	120	90	70	70	87
120	150	190	150	140	150	150	130	110	20	20	20	-
[120]	120	130	120	110	70	60	50	50	40	50	50	40
120	[130]	[120]	120	120	180	150	150	160	150	110	90	98
100	90	100	90	90	110	110	120	100	120	90	80	89
160	160	130	140	110	70	130	160	+S	160	100	50	96
90	[140]	70	50	70	70	80	60	+S	+S	40	40	-
100	100	90	80	70	120	90	80	-S	-S	-5	-120	-
80	90	70	80	80	70	110	150	170	130	120	80	-
70	70	60	50	40	40	30	40	30	40	30	20	68
90	90	100	90	50	60	30	60	80	60	60	50	48
100	100	110	120	110	80	90	100	130	90	90	90	83
80	50	80	90	80	90	100	100	90	120	100	70	61
70	[80]	70	30	30	80	70	50	50	70	60	40	63
70	60	60	70	80	50	30	80	60	80	40	40	45
50	50	40	30	20	10	30	0	-20	30	20	20	35
60	80	30	40	30	20	30	50	40	20	0	30	32
80	30	-10	0	30	0	0	10	-110	-20	10	10	-
10	10	10	20	10	10	30	40	30	30	30	30	39
20	30	60	30	70	30	-5	+S	+S	30	10	-10	-
[80]	80	80	70	50	40	50	50	60	50	50	60	-
50	60	50	50	60	40	50	40	40	40	40	30	46
60	50	50	50	50	50	70	70	70	70	50	40	-
70	80	70	50	50	50	60	50	50	70	50	40	-
60	70	50	50	50	50	60	70	50	50	50	50	51
70	80	70	60	50	50	50	50	50	50	50	40	50
20	30	40	40	30	40	10	-30	-110	-60	-50	-10	10
90	50	[-90]	-60	-50	+S	+S	60	-10	-50	-10	0	-
79	81	70	65	61	64	67	70	54	57	47	36	
28	28	28	28	28	27	26	27	24	26	27	28	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
March												
1.	30	50	30	50	50	20	20	40	30	[10]	-	60
2.	+S	10	+S	30	40	+S	+S	+S	-	100	+S	-50
3.	-	-	-	-	-	-	(100)	90	150	130	[120]	110
4.	50	50	50	50	40	50	50	50	50	50	[50]	60
5.	40	40	30	40	30	10	10	50	(50)	60	60	80
6.	80	70	70	80	70	80	80	80	50	40	[30]	40
7.	0	10	10	0	-10	-60	0	-10	-10	30	60	70
8.	60	90	60	50	50	40	-	80	80	90	90	110
9.	50	40	40	30	40	60	30	[40]	60	50	40	30
10.	80	80	70	60	60	30	30	20	10	10	30	[30]
11.	20	30	40	10	10	10	50	80	60	80	[90]	110
12.	80	60	50	70	70	70	80	100	120	130	(110)	(110)
13.	80	70	60	60	50	50	50	60	70	70	[80]	80
14.	50	40	40	50	40	40	30	50	50	60	70	80
15.	40	50	50	40	40	50	60	60	70	90	90	-
16.	50	-10	-10	0	-20	30	30	10	(30)	-	40	60
17.	30	40	50	50	50	50	70	90	[80]	60	60	50
18.	-20	20	-30	10	30	60	60	60	90	120	[130]	90
19.	50	50	80	80	60	20	-S	30	30	-S	+S	+S
20.	10	10	+S	+S	+S	+S	+S	-90	+S	+S	[50]	20
21.	40	40	40	40	40	50	70	60	[60]	70	60	50
22.	20	10	20	20	30	40	50	50	60	70	60	-
23.	60	60	50	50	50	60	80	(90)	(80)	90	100	90
24.	40	40	40	50	40	50	70	70	60	40	[60]	80
25.	70	50	60	50	50	40	80	70	70	[50]	70	60
26.	50	50	70	80	90	90	100	100	100	[80]	90	20
27.	70	70	50	40	50	50	70	50	50	50	[30]	50
28.	40	30	40	30	30	40	50	50	50	30	50	[50]
29.	+S	+S	30	0	30	40	40	40	70	60	-	50
30.	40	50	60	50	50	70	[80]	(80)	80	60	70	70
31.	0	0	-10	-10	-10	0	10	0	0	[30]	20	20
Means	43	41	41	40	40	41	52	49	61	65	65	58
Number of days	28	29	28	29	29	28	26	28	26	28	26	27

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
50	50	+S	40	60	40	0	-S	+S	+S	30	50	-
+S	160	170	30	120	20	-50	+S	+S	(-70)	-	-	-
90	110	70	70	70	60	70	70	60	50	50	50	-
70	60	80	90	60	50	50	50	40	60	50	50	55
100	90	90	80	80	80	90	80	60	70	90	90	63
30	-10	-50	0	20	30	0	-S	-S	10	30	10	-
80	100	70	30	-60	-150	-30	0	-70	-60	30	20	2
130	120	130	130	120	110	90	100	100	100	70	60	90
-S	+S	40	60	70	80	80	80	80	90	90	80	-
[20]	70	40	80	10	20	20	10	-10	10	20	30	35
100	100	130	130	100	80	80	60	40	70	70	80	68
100	(110)	100	120	120	90	90	90	90	90	80	80	-
90	100	110	120	100	80	70	60	60	90	60	50	74
80	[80]	[80]	70	60	70	70	80	60	50	50	50	58
120	110	100	70	80	80	60	70	90	90	70	50	71
60	+S	+S	+S	0	-50	10	30	+S	+S	0	30	-
60	50	40	70	60	40	30	40	10	20	0	+S	48
80	80	80	60	70	60	70	90	70	70	80	60	62
+S	+S	+S	-30	-10	10	30	30	40	30	10	10	-
10	50	50	40	50	60	60	50	40	60	40	40	-
50	60	60	60	60	50	40	50	50	40	30	50	51
70	80	70	60	50	70	80	90	80	70	60	60	55
90	90	100	100	80	80	100	120	110	80	60	40	-
80	70	40	30	30	40	60	50	60	70	70	80	55
60	50	50	50	40	50	60	60	80	70	80	60	60
50	70	50	50	40	50	40	60	70	60	50	40	65
70	70	70	60	50	30	30	20	30	20	30	30	48
40	30	20	-20	-10	30	+S	-S	-50	-50	-10	-40	-
30	40	30	50	50	60	60	70	60	50	50	50	-
80	70	60	50	40	40	20	30	30	-S	30	40	53
10	10	30	10	20	30	40	30	10	40	0	-20	11
68	73	68	59	53	45	47	58	48	50	46	44	
28	27	28	30	31	31	30	27	27	27	30	29	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
April												
1.	0	-20	-10	10	-10	0	20	50	40	30	50	[60]
2.	20	10	0	-10	0	0	-10	0	30	40	30	[30]
3.	-20	-20	0	0	-10	-20	-10	0	30	30	[40]	50
4.	40	30	30	20	30	30	40	50	60	50	40	20
5.	30	40	40	30	30	30	40	40	30	30	20	30
6.	40	40	40	30	20	30	+S	[+S]	-10	20	30	30
7.	20	10	10	20	30	40	80	60	50	40	40	[40]
8.	30	40	30	40	50	40	60	80	80	80	[70]	60
9.	10	-10	30	30	20	30	40	50	40	30	40	[40]
10.	20	20	20	20	10	-S	-S	-40	-40	30	10	[20]
11.	0	0	-20	-20	-30	-10	-20	[-10]	-20	-50	-S	+S
12.	40	40	50	40	40	40	50	50	50	50	-	30
13.	-10	-20	0	-10	-10	10	(0)	(-10)	20	30	50	30
14.	-20	-20	-20	-10	-20	0	30	40	50	[60]	50	70
15.	40	50	50	30	30	30	50	50	50	[40]	40	40
16.	30	40	30	20	30	40	30	30	40	[20]	20	30
17.	10	30	20	20	30	40	50	60	50	40	[50]	50
18.	10	10	20	20	10	[20]	40	50	50	50	40	50
19.	50	40	30	30	30	30	30	30	40	30	-	20
20.	20	0	10	20	20	30	40	40	40	30	-S	-10
21.	0	20	30	30	30	40	(50)	(70)	60	40	40	50
22.	10	20	20	30	30	30	30	30	30	[-S]	[0]	30
23.	40	30	20	20	10	30	50	40	60	[70]	80	70
24.	40	50	40	30	60	60	60	50	40	50	[50]	30
25.	0	-10	0	0	0	10	30	40	40	40	50	[60]
26.	20	20	20	20	20	30	30	30	20	-	30	30
27.	50	40	40	40	40	60	(60)	(70)	80	70	60	50
28.	50	40	50	40	40	60	70	[70]	80	60	60	60
29.	20	20	10	10	10	30	[30]	(40)	40	40	50	60
30.	40	40	40	40	40	40	40	40	[50]	40	40	40
Means	21	19	21	20	19	28	36	37	39	39	42	40
Number of days	30	30	30	30	30	29	25	25	30	28	26	29

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
70	80	80	70	80	100	60	80	70	70	50	30	44
30	30	40	50	40	40	40	40	40	50	30	-20	23
40	40	30	30	50	40	40	40	40	40	40	30	22
[10]	20	-20	0	30	20	30	30	30	30	20	30	28
-	30	40	40	30	40	-	-	40	50	40	40	-
40	30	40	50	+S	+S	0	40	30	40	30	30	-
40	40	40	40	30	30	20	20	20	40	30	30	34
40	40	40	30	20	20	20	10	30	40	30	20	42
30	30	30	40	20	10	10	0	10	10	10	20	24
-50	-70	-20	40	40	40	40	40	30	30	10	0	-
+S	+S	+S	+S	+S	+S	70	60	70	50	40	50	-
40	40	40	40	50	40	30	30	40	40	30	10	40
50	30	10	30	40	30	-10	-20	-30	-20	-10	-10	-
60	60	50	50	70	70	60	80	60	50	50	50	38
40	40	40	50	70	60	50	40	50	40	40	30	44
30	20	-10	20	30	20	10	-50	-40	0	-10	0	16
50	40	40	40	40	30	30	30	30	30	10	10	35
50	50	50	50	50	120	110	70	70	50	40	50	47
20	20	20	10	20	10	10	20	10	+S	+S	10	-
[10]	30	40	10	20	30	40	30	+S	30	20	-10	22
60	+S	+S	30	40	40	50	50	30	10	20	20	-
30	30	30	50	40	40	40	50	70	50	50	50	34
60	60	70	60	40	40	30	50	40	40	40	40	45
30	30	40	30	20	20	20	20	10	10	0	0	33
60	60	50	60	40	60	40	50	50	30	30	20	33
+S	-30	0	20	20	30	20	40	40	30	40	50	24
50	70	60	60	70	60	50	50	60	90	80	50	-
50	50	50	60	50	40	50	40	30	20	20	20	48
50	50	50	50	50	50	50	50	40	40	40	40	38
40	30	40	40	40	40	40	50	50	40	40	40	41
38	34	35	40	41	42	36	36	35	36	30	24	
27	28	28	29	28	28	29	29	29	29	29	30	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
												May
1.	30	30	30	20	30	30	30	30	[40]	40	40	40
2.	20	20	20	20	30	30	30	[40]	50	50	50	50
3.	10	10	20	30	40	50	40	40	-	40	30	40
4.	-	-	-	-	-	-	-	-	-5	30	30	10
5.	20	20	10	20	30	10	0	40	[10]	[60]	60	80
6.	20	20	10	-10	20	10	0	-10	-10	[-30]	-10	-20
7.	+5	30	0	0	10	-20	-20	-30	-40	[-40]	-20	-10
8.	-10	20	20	30	50	70	80	90	70	60	[60]	40
9.	30	30	30	20	20	30	60	70	60	60	60	60
10.	20	20	20	20	30	40	50	60	[50]	50	50	50
11.	40	30	20	+5	+5	+5	-	-	50	50	50	50
12.	10	20	10	20	30	30	30	[20]	[20]	20	20	30
13.	30	30	-10	-30	10	10	20	-40	-10	[-20]	-50	-40
14.	-	-	-	-	-	-	-	-	-	-	60	50
15.	30	30	20	30	40	40	50	40	40	[40]	40	40
16.	20	10	30	30	20	0	20	10	80	40	[40]	30
17.	30	30	30	30	30	40	40	40	40	-	30	20
18.	30	30	30	30	40	40	40	[40]	[30]	10	0	20
19.	20	20	20	20	30	30	40	40	[40]	40	40	30
20.	-	-	-	-	-	-	-	+5	40	[40]	70	-90
21.	0	0	10	10	10	10	-	-	-	-10	10	10
22.	-5	+5	+5	+5	+5	-5	+5	-5	+5	[+5]	0	20
23.	-90	20	10	-100	-50	-100	-10	10	40	20	30	40
24.	30	30	10	10	10	20	30	40	60	-	[50]	40
25.	10	30	20	30	20	20	[30]	-	60	50	50	50
26.	10	20	10	20	30	10	30	40	[50]	60	60	60
27.	0	10	10	20	20	50	50	40	40	[50]	40	60
28.	0	-10	-10	50	-5	30	-10	30	90	30	+5	30
29.	10	20	20	20	30	30	30	40	50	50	[40]	40
30.	10	0	0	-10	0	10	10	10	40	10	[40]	40
31.	20	20	30	-	-	-	-	-	-	-	30	30
Means	13	20	16	13	22	21	28	30	40	31	33	29
Number of days	26	27	27	25	24	25	24	23	25	26	30	31

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
50	50	40	40	40	40	50	40	40	30	20	20	35
50	50	50	40	40	30	30	20	20	20	10	20	33
40	40	40	40	30	-	-	-	-	-	-	-	-
-20	-20	-30	-5	+S	+S	-	-	-	+S	20	40	-
50	30	40	40	40	60	80	60	50	40	20	10	37
-20	-20	-20	(-20)	-	-20	-10	10	-10	-10	30	40	-
30	30	40	40	30	20	-10	-10	-10	-20	-20	-10	-1
40	30	20	40	40	30	50	50	40	40	40	40	43
[40]	50	50	50	50	60	40	50	40	20	30	20	43
40	40	40	40	30	30	40	40	40	40	40	40	38
40	40	30	20	30	20	10	0	10	10	10	10	-
30	40	40	40	40	40	40	40	20	40	20	30	28
-10	-10	0	10	-	-	-	-	-	-	-	-	-
50	50	50	50	50	40	40	40	50	40	50	40	-
30	40	40	40	30	40	40	40	40	10	10	20	34
-10	+S	20	+S	+S	+S	+S	-20	30	50	40	30	-
20	20	20	30	30	30	40	40	40	40	30	30	32
30	20	0	10	30	30	30	40	30	30	20	30	27
30	-S	+S	-	-	-	-	-	-	-	-	-	-
-10	-10	0	0	0	0	10	10	10	-10	0	0	-
-40	-40	-40	-5	20	20	30	10	-60	-120	-140	-80	-
30	30	30	0	20	0	-40	10	10	-10	20	+S	-
[40]	-30	10	0	0	10	30	30	40	40	40	30	3
40	40	30	30	50	40	50	40	40	30	20	20	33
50	50	40	40	40	30	30	30	40	50	30	20	36
50	50	40	40	30	50	50	40	30	10	0	10	33
50	50	50	40	+S	+S	+S	+S	+S	+S	10	10	-
40	[30]	30	30	20	10	10	10	10	10	10	10	-
40	50	70	40	30	30	40	40	30	10	10	10	33
30	30	30	30	20	50	30	30	10	20	30	30	21
30	40	40	20	0	0	10	10	20	40	20	30	-
28	27	27	31	30	28	29	27	23	17	15	19	
31	29	30	26	25	25	25	26	26	26	28	27	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
												June
1.	20	10	-20	0	-10	0	-10	(-10)	(-10)	10	70	50
2.	30	20	30	40	40	50	40	50	[50]	50	30	40
3.	30	30	30	30	30	30	30	(20)	[-30]	30	0	40
4.	30	30	40	30	40	40	40	30	[40]	40	30	20
5.	30	20	30	30	20	30	20	[30]	40	40	40	20
6.	20	20	20	20	30	[40]	30	40	50	50	40	30
7.	40	30	30	20	30	30	30	-	30	20	20	20
8.	10	10	10	20	10	0	[10]	-	20	20	20	30
9.	30	30	30	30	20	30	30	30	30	40	[50]	40
10.	10	20	10	10	10	20	10	-10	[10]	(30)	30	30
11.	20	10	10	10	20	30	30	30	40	[40]	40	30
12.	20	20	20	20	30	40	20	20	20	[10]	20	20
13.	30	10	30	30	50	60	40	40	40	30	40	30
14.	0	0	0	0	10	20	20	20	30	[40]	-	40
15.	30	40	20	-30	0	30	(40)	(30)	20	20	20	10
16.	20	+S	+S	10	-10	40	20	60	[60]	80	50	30
17.	10	10	20	10	20	20	30	30	[30]	40	30	30
18.	30	20	30	40	40	50	(50)	60	40	40	-S	-
19.	-20	+S	+S	30	10	30	30	30	[40]	40	40	30
20.	30	30	30	20	30	30	40	20	-10	30	-20	[10]
21.	10	-20	-30	10	0	-30	-S	-S	20	10	-	-20
22.	10	-10	-40	0	-50	0	10	-S	30	-20	40	30
23.	30	30	30	30	40	40	40	70	[70]	50	40	40
24.	20	20	10	10	30	50	50	40	30	[30]	40	40
25.	20	20	10	30	30	70	70	60	30	[30]	30	20
26.	10	10	10	10	0	0	10	10	10	0	0	0
27.	20	20	30	30	30	30	30	[40]	30	40	30	20
28.	0	-10	-10	0	0	0	10	20	30	-	50	50
29.	30	30	40	40	40	40	-	[50]	70	60	60	60
30.	20	10	10	10	20	20	30	30	[30]	30	30	40
Means	20	16	15	18	19	28	27	35	31	30	32	29
Number of days	30	28	28	30	30	30	26	23	29	28	27	29

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
40	40	30	40	40	40	50	50	50	40	40	30	-
40	20	70	30	40	50	30	60	70	60	50	40	43
60	50	40	40	50	50	30	70	80	40	40	40	37
20	20	-5	-	-	-	10	10	+5	-5	-20	10	-
30	40	20	30	30	30	40	40	30	30	20	20	30
30	40	40	40	40	40	40	40	40	30	40	50	36
10	10	20	10	20	20	20	30	20	20	30	20	23
20	30	30	30	20	30	20	30	30	30	40	30	22
30	30	10	10	30	10	0	20	10	0	20	30	25
30	40	40	90	70	40	40	30	30	30	40	20	28
20	20	20	20	20	20	20	20	20	10	10	0	21
30	30	40	30	30	30	20	20	10	20	20	40	24
[40]	40	20	20	20	20	20	20	20	20	10	10	29
40	40	30	30	30	+5	+5	+5	0	40	60	50	-
-20	-10	0	10	10	20	30	40	50	50	40	+5	-
30	20	10	0	30	40	30	20	20	20	20	10	-
30	40	40	+5	40	30	40	40	40	40	30	30	30
-	-	-	-	-	-	(50)	50	40	30	30	30	-
40	30	30	30	30	10	30	30	+5	30	30	40	-
-20	30	10	20	30	30	30	30	30	30	10	30	18
20	60	20	0	0	10	10	10	10	0	-10	20	-
-10	30	20	10	20	20	20	10	-10	0	10	10	6
40	30	30	30	20	30	30	30	40	30	10	20	35
+5	-	-	-	-	-	-	30	20	20	10	20	-
40	40	40	30	40	30	30	30	20	10	10	10	31
0	[0]	+5	+5	+5	30	30	30	30	10	20	40	-
20	20	30	20	30	30	20	30	20	10	10	0	25
60	50	60	70	60	50	50	40	40	30	30	30	31
60	50	50	40	40	40	30	30	20	20	10	20	40
30	40	40	40	50	40	40	40	40	30	20	30	30
27	31	30	29	32	30	28	32	29	25	23	24	
28	28	26	25	26	26	27	29	28	29	30	29	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
												July
1.	20	30	30	30	30	30	30	[30]	30	30	30	30
2.	10	20	10	10	20	20	30	40	[40]	50	50	50
3.	30	20	30	40	40	50	60	[70]	60	60	70	70
4.	20	20	10	-10	-10	20	20	[50]	70	80	80	60
5.	-	-	-	-	-	-	-	-	-	-	-	-
6.	-	-	-	-	-	-	-	-	80	80	70	60
7.	30	30	20	20	30	[30]	20	30	40	40	40	30
8.	30	30	30	30	30	40	30	[30]	30	30	20	20
9.	40	40	40	30	30	40	40	[40]	40	30	10	10
10.	-	-	-	-	-	-	-	-	-	-	-	-
11.	-	-	-	-	-	-	-	-	-	-	-	-
12.	-	-	-	-	-	-	-	-	-	-	-	-
13.	-	-	-	-	-	-	-	-	40	40	60	30
14.	30	20	20	20	20	40	60	[40]	50	60	50	50
15.	40	30	30	20	30	30	40	[20]	20	20	20	30
16.	40	50	50	60	40	[50]	40	20	20	10	10	10
17.	10	20	30	30	40	30	[40]	[40]	30	40	40	40
18.	40	40	30	30	40	[40]	[40]	30	30	30	20	10
19.	30	20	30	40	30	[30]	30	40	50	60	60	50
20.	20	30	30	20	30	30	-	-	30	40	40	50
21.	10	20	20	10	30	30	20	[20]	30	40	40	50
22.	30	30	30	30	30	40	30	[40]	40	40	30	30
23.	10	20	10	20	30	40	50	[50]	60	60	70	60
24.	30	30	20	30	30	40	[30]	[30]	30	-	-	-
25.	-	-	-	-	-	-	40	40	40	40	30	+S
26.	+S	20	20	+S	+S	30	+S	+S	-	+S	10	10
27.	30	30	30	20	30	30	-	-	30	30	30	20
28.	-50	-10	20	20	30	30	40	[40]	40	40	30	30
29.	20	-40	10	10	30	20	40	[40]	40	40	40	40
30.	20	30	40	30	40	40	40	[40]	40	50	50	40
31.	-	-	-	-	-	-	0	[-20]	10	40	70	40
Means	22	23	26	25	30	34	35	35	39	43	41	37
Number of days	22	23	23	22	22	23	22	22	26	25	26	25

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
30	30	30	30	30	30	20	20	10	20	20	0	26
40	50	60	60	70	70	60	60	30	30	40	30	40
60	60	50	60	50	60	80	50	50	50	30	20	51
60	50	50	50	60	50	60	70	60	60	40	(20)	43
-	-	-	-	-	-	-	-	-	-	-	-	-
50	40	40	40	40	40	40	40	40	30	30	20	-
30	30	30	30	30	30	20	20	30	30	30	30	28
20	20	30	30	20	20	30	20	30	40	30	40	28
0	-120	20	40	50	40	50	30	30	20	30	(50)	25
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
+S	+S	+S	+S	+S	0	20	30	40	40	30	30	-
50	40	40	40	60	70	60	60	50	40	40	30	43
30	40	-S	-S	+S	50	40	70	60	40	40	30	-
10	10	20	20	20	40	30	30	20	20	10	20	27
40	40	40	40	40	40	40	40	40	40	40	40	36
10	10	20	10	20	20	30	30	30	30	30	30	27
40	40	40	40	50	30	-S	+S	20	40	40	30	-
50	40	40	40	40	30	30	30	30	30	30	10	-
50	60	50	50	50	50	10	20	30	30	30	30	33
30	20	20	20	20	20	30	30	20	10	10	10	27
50	60	50	50	60	50	50	50	40	20	30	30	43
-	-	50	+S	+S	+S	-	-	-	-	-	-	-
+S	+S	+S	+S	+S	+S	-20	-20	-20	10	20	-S	-
20	30	30	30	30	40	40	40	50	40	30	30	-
30	30	30	30	30	30	30	20	20	40	40	-30	-
40	40	40	50	50	60	50	40	40	50	30	10	32
40	40	20	40	60	70	50	40	20	30	20	10	30
30	20	20	30	30	30	30	70	+S	+S	30	-	-
30	50	50	30	20	40	40	30	30	30	40	40	-
35	30	36	36	40	40	37	37	32	33	30	20	
24	24	24	23	23	25	25	25	25	25	26	22	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
August												
1.	30	30	30	20	20	20	30	[40]	30	30	20	30
2.	10	10	0	10	20	30	40	-	[20]	20	10	30
3.	30	10	+S	-90	10	-	30	[90]	80	40	30	40
4.	10	30	10	-40	0	30	0	-	40	70	+S	+S
5.	-	-	-	-	-	-	-	-	130	130	90	-S
6.	40	40	30	30	40	50	50	-	40	40	+S	-
7.	-	-	-	-	-	-	-	-	30	30	30	40
8.	40	40	30	30	30	40	50	[70]	40	40	40	40
9.	40	40	40	50	50	50	50	-	40	40	30	30
10.	-	-	-	-	-	-	-	0	10	0	0	-10
11.	-10	-	-	-	-	-	-	-	-	-	-	-
12.	30	30	10	30	30	40	50	[50]	50	50	50	50
13.	30	10	10	10	-40	40	70	[-90]	+S	-S	50	110
14.	30	30	40	50	50	50	50	(40)	50	+S	-	-
15.	-	-	-	-	-	-	-	(70)	110	90	70	70
16.	30	30	30	30	40	40	40	-	40	50	40	30
17.	0	30	40	30	10	40	-	-	40	30	30	40
18.	40	30	30	20	30	30	40	[30]	30	10	10	10
19.	-10	-10	0	0	10	20	40	[30]	30	30	20	20
20.	20	10	10	20	20	30	[30]	[40]	40	40	30	30
21.	20	30	30	30	30	40	60	[60]	60	60	60	50
22.	30	30	30	20	30	40	50	[40]	30	30	40	40
23.	30	30	20	20	30	30	40	40	30	10	-	30
24.	40	40	40	40	30	40	40	-	[40]	40	20	20
25.	40	40	30	30	30	40	30	30	[20]	10	20	30
26.	-	-	-	-	-	-	-	40	50	40	40	[30]
27.	30	30	30	30	30	30	20	30	30	30	[0]	20
28.	40	40	30	+S	+S	30	40	40	50	40	[30]	30
29.	10	0	10	10	20	30	10	20	30	30	10	[10]
30.	30	30	30	20	10	10	10	10	-	30	50	60
31.	10	20	20	20	30	30	[40]	40	40	40	(40)	30
Means	25	26	24	18	23	35	38	32	44	39	33	35
Number of days	26	25	24	24	24	24	24	19	28	28	25	26

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
30	30	20	80	50	+S	40	10	+S	+S	20	10	-
30	30	30	20	30	30	30	20	10	0	40	50	23
40	+S	+S	30	40	50	+S	-10	40	10	30	10	-
+S	-	-	-	-	-	-	-	-	-	-	-	-
30	50	50	50	40	40	40	40	50	50	30	40	-
-	-	-	-	-	-	-	-	-	-	-	-	-
50	40	30	10	30	30	10	30	40	40	40	50	-
30	40	40	30	30	40	40	30	40	40	50	40	39
30	40	40	40	40	30	-	-	-	-	-	-	-
-80	+S	-	-	-	-	-	-	-	-	0	-10	-
-	0	0	0	0	0	10	30	30	10	10	30	-
50	50	50	40	40	0	30	40	40	40	40	40	39
110	40	30	30	40	40	40	30	30	10	30	10	-
-	-	-	-	-	-	-	-	-	-	-	-	-
70	50	40	40	50	40	40	40	40	40	40	40	-
30	40	40	40	50	50	40	40	40	50	40	10	38
30	20	40	30	40	40	40	40	40	50	60	40	-
10	20	10	10	20	20	30	+S	+S	+S	0	10	-
30	10	+S	-S	40	40	30	30	40	20	10	20	-
30	20	20	10	30	20	30	30	30	40	40	40	28
50	50	40	40	50	40	40	40	40	40	40	40	43
40	40	30	30	40	40	40	30	30	30	20	30	34
30	40	40	40	40	40	40	40	40	40	40	40	34
10	0	0	20	20	30	30	40	40	30	30	40	30
20	0	20	30	+S	30	30	-	-	-	-	-	-
30	20	20	20	20	20	20	30	40	30	30	30	-
0	-20	30	30	40	30	30	40	40	50	40	50	28
30	30	40	30	30	20	20	10	30	20	20	10	-
10	30	40	40	40	40	30	40	40	40	40	40	26
60	60	50	40	40	40	40	30	30	30	20	20	33
30	30	40	60	60	40	70	90	90	80	40	40	43
31	29	32	32	37	32	34	33	39	34	31	30	
27	26	25	26	26	26	25	24	23	23	26	26	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
September												
1.	40	30	30	30	30	30	30	40	40	30	40	[30]
2.	30	20	10	10	0	10	40	40	40	30	[40]	40
3.	30	40	40	40	40	60	110	90	80	70	-	-
4.	30	30	30	30	20	40	80	40	40	[40]	30	30
5.	30	20	30	20	20	30	40	40	30	20	30	[30]
6.	40	30	30	10	10	+S	10	60	80	30	20	-
7.	20	30	20	20	20	30	[40]	[70]	80	60	40	40
8.	60	40	40	30	40	60	80	90	90	60	+S	-
9.	-	-	-	-	-	-	-	60	40	30	30	30
10.	30	20	20	10	30	70	60	40	30	40	[30]	20
11.	40	40	40	30	40	40	60	60	[40]	20	30	20
12.	10	10	10	10	10	10	30	30	30	30	40	60
13.	30	20	20	20	30	40	40	40	40	-	20	20
14.	20	20	20	20	30	30	(50)	50	4	50	50	40
15.	40	40	20	20	40	50	50	50	50	50	[50]	50
16.	20	20	10	10	20	-10	0	0	10	50	[40]	40
17.	50	50	50	50	60	100	80	70	70	70	[70]	60
18.	20	40	40	40	20	40	-	-	-	40	[40]	50
19.	-	-	-	-	-	-	50	50	50	60	50	50
20.	40	40	40	40	20	10	50	80	50	40	40	(50)
21.	40	50	50	50	50	60	[60]	-	-	-	60	40
22.	20	10	30	30	10	30	30	40	30	[30]	40	30
23.	40	40	40	30	10	40	40	40	40	40	[40]	40
24.	70	70	60	20	40	40	30	30	+S	+S	+S	10
25.	30	30	30	30	30	30	40	40	40	40	[40]	40
26.	40	30	20	20	30	0	20	20	30	40	40	[40]
27.	40	30	30	40	30	20	110	+S	+S	+S	-	-
28.	40	30	30	40	60	40	80	[+S]	[90]	90	80	70
29.	40	40	40	50	40	40	40	40	60	70	80	[70]
30.	10	30	20	30	30	30	40	50	60	-	[80]	80
Means	34	32	30	26	29	36	48	48	49	45	44	41
Number of days	28	28	28	28	28	27	27	26	26	25	26	25

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
20	30	40	30	40	30	30	30	20	10	20	20	30
30	40	40	40	60	+S	+S	0	30	30	30	30	-
60	40	40	30	40	40	60	60	40	40	30	30	-
30	30	30	40	40	40	40	40	30	20	20	30	35
30	40	40	40	40	40	40	20	30	10	30	20	30
10	20	+S	+S	30	30	40	30	40	40	30	30	-
40	40	60	60	60	60	60	70	60	60	70	60	49
-	-	-	-	-	-	-	-	-	-	-	-	-
30	40	30	30	30	20	30	40	40	40	60	40	-
30	30	20	30	30	40	40	40	40	40	40	40	34
30	40	0	+S	-10	30	20	10	20	40	30	20	30
40	60	[60]	60	40	30	40	40	40	40	40	30	33
20	30	30	30	30	40	30	30	20	20	20	20	28
40	50	50	50	50	60	60	60	50	50	50	50	43
40	50	50	40	40	50	50	50	50	60	60	50	46
50	50	50	50	60	50	50	50	50	50	60	60	35
40	40	20	40	20	20	0	0	0	0	20	10	41
50	40	50	50	70	60	50	60	60	60	60	50	-
+S	+S	-S	+S	-	0	20	20	40	10	10	20	-
40	40	50	50	50	50	50	50	60	50	60	50	46
(60)	40	40	40	60	60	40	40	30	30	30	30	-
30	40	40	40	40	40	40	30	40	30	40	40	33
30	40	40	60	40	60	60	70	80	70	40	40	45
+S	30	30	30	30	40	40	30	30	10	30	30	-
40	30	30	40	40	40	40	40	60	30	30	30	36
40	30	40	30	40	40	20	20	30	+S	-S	+S	-
-	-	-	-	40	70	60	60	40	60	60	40	-
80	80	90	90	100	90	80	70	80	80	60	50	70
30	40	30	20	70	80	40	50	40	40	30	30	46
70	60	-S	80	70	60	70	60	50	60	70	60	53
38	41	40	44	45	45	43	40	41	39	40	36	
25	27	25	25	28	28	28	29	29	28	28	28	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
October												
1.	60	60	40	40	50	40	50	70	60	50	[50]	60
2.	30	20	20	20	10	30	40	40	40	40	40	40
3.	40	50	40	50	40	40	60	60	50	40	40	40
4.	40	30	30	30	30	40	40	30	-	30	30	40
5.	20	30	20	30	30	30	30	[30]	30	20	30	30
6.	0	-10	0	0	20	30	20	30	40	30	[20]	30
7.	40	30	10	10	20	40	50	50	50	40	[50]	50
8.	10	0	10	10	10	20	20	30	30	30	30	30
9.	-20	+5	-20	-10	10	10	20	40	50	40	[40]	40
10.	30	20	10	10	10	0	0	0	-10	-10	-10	-10
11.	0	-20	-20	-40	-50	-30	-40	-40	-30	-20	0	-
12.	50	40	40	30	30	30	60	[50]	0	10	30	10
13.	+5	+5	30	20	40	40	50	60	[70]	70	60	50
14.	30	20	20	10	20	30	40	50	50	50	[40]	40
15.	30	30	20	0	20	40	70	60	50	40	[40]	40
16.	10	10	0	10	10	20	20	20	30	30	[30]	30
17.	30	30	30	30	30	30	40	30	40	50	50	[30]
18.	30	-10	-10	20	10	70	50	40	40	0	-	10
19.	30	40	30	30	40	40	40	[50]	[40]	30	30	40
20.	20	20	30	20	10	20	20	30	20	20	[20]	30
21.	0	-10	0	-10	-10	-10	-10	-20	-20	-20	[-10]	-20
22.	50	60	60	70	80	70	10	10	0	10	0	-10
23.	0	0	0	0	30	0	10	10	20	10	[10]	10
24.	-10	-70	20	30	30	30	20	20	40	20	20	40
25.	-30	0	10	20	10	20	30	50	60	[60]	-	40
26.	30	20	30	40	40	40	40	[50]	[60]	40	30	30
27.	30	20	20	10	20	20	10	0	10	30	[30]	20
28.	10	10	20	20	30	40	40	40	40	40	30	[20]
29.	10	20	40	40	30	10	30	30	30	20	40	40
30.	0	10	10	20	30	30	40	30	30	30	[30]	40
31.	40	20	20	10	20	30	30	40	40	40	40	50
Means	20	16	18	18	23	27	30	32	32	28	27	30
Number of days	30	29	31	31	31	31	31	31	30	31	29	30

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
60	70	60	70	50	50	50	60	50	40	30	30	52
50	[40]	50	30	50	60	70	50	40	50	40	50	40
[40]	30	40	40	40	40	40	40	40	40	50	50	43
30	30	40	30	40	40	40	30	30	40	30	20	33
20	30	40	40	30	30	20	0	-10	-10	-10	0	21
40	50	50	40	50	50	40	40	30	20	20	40	28
50	50	60	50	40	30	40	30	30	30	30	20	38
[40]	40	40	40	40	40	40	40	40	40	30	10	28
30	20	30	40	50	50	40	40	40	30	40	30	28
[-10]	[-10]	-10	-10	10	(20)	(0)	(0)	0	0	-10	-10	-
30	30	40	40	40	30	40	40	30	40	30	50	7
30	40	30	30	30	30	40	+S	-S	+S	+S	+S	-
70	70	70	60	60	70	70	60	50	50	50	40	-
30	40	40	40	40	50	40	50	40	40	30	40	37
40	30	40	30	30	20	20	30	10	10	10	20	30
30	30	30	40	30	30	30	40	20	20	20	30	24
40	60	30	30	30	20	-10	-20	10	30	10	20	28
10	0	0	-10	0	0	10	0	0	10	20	20	14
30	40	30	30	40	40	50	50	40	30	20	20	36
20	20	10	10	20	20	10	10	0	0	20	0	17
10	30	10	10	20	40	50	50	50	40	60	40	11
-10	-10	0	10	10	0	0	0	30	20	20	10	20
30	20	30	-40	0	20	0	-10	10	20	30	30	10
50	[30]	30	10	0	20	10	10	10	-20	-20	-20	13
40	50	50	40	30	40	30	30	30	30	20	20	30
-60	-20	50	40	40	-30	10	50	80	30	30	30	29
30	30	40	30	40	30	30	10	10	10	20	10	21
10	20	10	-10	10	0	0	0	10	0	0	10	17
[40]	50	50	40	40	40	40	30	10	20	10	10	30
40	50	50	40	30	30	40	30	30	40	30	40	32
[50]	[60]	60	70	70	90	70	70	60	60	60	50	48
29	33	35	29	33	33	32	30	27	25	24	24	
31	31	31	31	31	30	30	29	30	30	30	30	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
November												
1.	50	50	50	50	80	60	50	60	40	40	40	[50]
2.	10	0	30	50	30	-10	0	-10	20	20	[10]	30
3.	30	30	20	0	0	10	70	80	80	50	50	[60]
4.	50	50	60	50	50	50	60	70	60	70	[70]	80
5.	60	50	40	50	50	60	60	80	80	70	[70]	70
6.	40	30	30	40	50	60	40	50	60	70	[70]	60
7.	30	30	20	30	20	10	20	20	30	40	50	[70]
8.	60	60	60	60	60	130	140	120	150	50	80	[80]
9.	130	130	120	130	70	80	70	-	-	70	30	30
10.	20	50	70	60	30	30	20	60	70	40	[30]	50
11.	30	20	0	-10	40	40	40	40	70	60	[60]	60
12.	30	20	30	30	30	30	30	10	20	30	40	40
13.	40	30	40	30	40	10	10	0	-20	0	30	[20]
14.	-20	+5	+5	+5	+5	+5	+5	-	-	-	-	-
15.	50	50	30	20	30	30	30	40	40	40	40	-
16.	30	40	10	10	0	-10	-20	-10	-	-10	10	30
17.	50	60	60	-5	80	60	40	20	40	[60]	-	-
18.	-	-	-	-	-	-	10	30	40	[40]	40	40
19.	30	40	30	40	30	20	40	-10	-60	[10]	-10	-5
20.	50	50	50	40	40	50	50	60	50	(30)	(30)	(40)
21.	20	30	20	30	30	30	30	+5	+5	80	60	[30]
22.	40	40	40	40	50	50	50	60	50	70	[70]	60
23.	30	30	30	30	30	40	40	[40]	-	30	50	50
24.	30	40	50	-10	-40	-40	0	20	20	20	[50]	70
25.	-5	-10	0	10	0	10	30	40	50	50	[50]	50
26.	50	50	40	40	40	50	30	40	50	50	[50]	50
27.	0	-20	-50	+5	+5	+5	-50	-20	0	-10	-100	[-30]
28.	30	30	20	30	20	30	30	40	40	50	30	30
29.	20	30	30	20	20	20	30	40	50	50	-	40
30.	-20	10	0	0	0	10	10	[0]	10	-10	-10	-30
Means	35	33	33	33	33	34	33	36	42	40	37	44
Number of days	28	28	28	26	27	27	29	27	25	28	26	25

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
50	60	60	60	40	-	30	10	50	60	40	40	49
30	10	20	50	40	10	50	30	20	20	30	30	22
70	80	80	80	90	80	80	90	90	70	60	70	59
70	70	60	40	40	50	60	80	90	90	80	70	63
80	80	80	70	90	130	120	80	80	70	60	30	71
70	90	90	90	120	80	60	50	40	60	50	30	60
40	50	40	40	40	40	30	30	20	20	30	40	33
[70]	80	80	70	130	190	210	190	140	60	100	120	104
80	30	20	30	30	20	70	60	40	30	20	20	-
70	50	40	30	70	40	40	0	40	30	-20	-20	38
40	50	40	30	40	60	70	80	70	50	40	30	44
30	40	40	50	50	60	70	90	80	40	30	30	40
-20	30	40	40	50	70	50	40	60	60	30	30	30
20	40	50	50	60	60	60	60	60	60	70	60	-
60	70	80	60	60	80	90	70	40	40	40	30	49
10	0	-20	20	30	40	70	50	50	70	50	70	20
-	-	-	-	-	-	-	-	-	-	-	-	-
40	40	(40)	40	50	60	70	70	50	40	40	30	-
-20	10	40	50	70	50	90	30	-10	-20	10	40	22
40	50	60	60	60	60	70	60	60	60	50	40	-
[50]	50	+S	+S	40	40	60	60	60	60	50	40	-
60	50	50	50	80	80	50	70	60	50	30	30	53
50	50	50	50	50	40	30	50	50	40	30	40	40
40	30	-60	-10	40	30	40	90	-S	100	70	-S	-
60	50	60	70	70	70	60	60	60	50	50	50	43
(60)	60	60	70	60	60	50	40	80	80	20	30	50
0	10	30	30	40	50	50	50	50	40	40	30	-
40	[30]	[40]	30	30	40	30	30	30	30	30	20	32
50	50	40	50	40	30	0	-S	+S	+S	+S	-10	-
-10	-10	10	0	0	10	10	30	30	50	20	0	5
42	45	44	46	56	58	61	59	55	50	41	36	
28	29	27	28	29	28	29	28	27	28	28	28	

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11
December												
1.	30	10	0	0	-10	10	70	50	30	10	[30]	30
2.	20	20	10	-10	10	0	10	10	0	20	-20	[0]
3.	50	60	50	50	60	50	50	50	90	(80)	(70)	80
4.	-10	-10	-10	-20	-20	-10	-10	0	-40	-30	[-40]	-30
5.	0	-10	-10	-20	-30	-20	10	30	-10	-20	(-10)	-10
6.	10	20	-10	-10	0	-10	20	0	-10	-20	-40	[10]
7.	90	140	170	150	80	-60	10	[10]	[60]	60	(80)	80
8.	20	+5	+5	50	-5	-30	-20	0	20	40	[80]	80
9.	90	70	70	70	90	100	90	80	100	90	[80]	90
10.	50	30	30	0	-40	-50	20	70	90	100	110	[100]
11.	40	60	50	50	40	70	70	80	100	100	90	[40]
12.	40	50	50	60	80	40	50	80	70	50	[40]	80
13.	40	40	50	70	80	60	70	50	50	10	-40	(-30)
14.	-110	-90	-130	-120	-80	-60	-60	(-60)	-70	-50	-60	-90
15.	70	70	80	80	50	30	30	40	50	40	[20]	40
16.	10	10	10	-10	-10	-10	-20	-30	-40	-40	-70	-60
17.	-50	-50	10	-10	-5	-90	-30	0	-5	-5	-40	[80]
18.	90	110	20	-5	-120	-60	80	[90]	[40]	50	20	-20
19.	-5	-5	-5	70	-5	-5	-110	10	10	40	80	[90]
20.	40	30	10	10	30	40	40	40	40	40	-	60
21.	30	30	40	40	40	50	50	[50]	(40)	50	(50)	(40)
22.	30	20	10	20	30	10	-30	-30	-	-	(-30)	-10
23.	40	40	40	30	40	40	40	50	50	60	[60]	50
24.	20	30	20	30	10	10	30	40	60	70	70	-
25.	70	40	10	20	10	0	10	-10	-30	[-40]	-40	-10
26.	80	70	30	50	0	-20	-20	0	-10	0	[-30]	0
27.	70	40	10	20	30	40	10	10	20	30	30	60
28.	110	40	70	30	20	30	50	[50]	10	30	60	50
29.	30	30	30	30	30	30	30	40	40	[50]	50	60
30.	10	10	10	0	0	20	20	30	40	50	50	-
31.	40	30	30	20	20	20	20	10	0	10	[20]	[20]
Means	35	32	26	25	16	8	19	30	27	29	20	32
Number of days	30	29	29	30	28	30	31	30	28	28	25	27

12	13	14	15	16	17	18	19	20	21	22	23	Daily means
30	30	20	40	40	30	20	0	10	20	10	10	22
-10	0	0	10	-30	10	30	30	40	50	40	50	10
80	100	100	100	100	130	90	70	60	20	0	0	-
-10	0	0	0	10	10	10	0	10	10	0	0	-8
[20]	30	(30)	40	40	40	50	70	50	70	40	20	17
10	30	0	-10	10	50	-70	-10	100	120	130	150	20
80	70	50	50	80	80	80	80	70	70	80	60	71
90	90	100	90	90	100	100	110	100	90	90	90	-
90	90	90	90	100	90	80	90	110	110	90	50	88
110	100	110	90	90	90	90	80	90	50	40	50	63
[30]	60	70	70	60	50	80	80	80	90	60	50	65
90	60	70	80	100	90	80	60	60	60	80	30	65
10	10	-20	-30	-60	-60	-60	-70	-60	-80	-70	-90	-4
-50	-50	-20	0	10	50	80	70	60	70	80	100	-23
30	30	30	30	10	20	80	70	30	30	20	10	41
[-50]	-50	-50	-50	-5	-20	-40	-30	-50	-50	-60	-30	-32
0	-5	-5	-70	0	+5	30	130	150	130	110	40	-
-20	50	30	30	90	100	90	80	90	-40	-5	-30	35
[70]	70	50	40	60	20	30	40	40	30	30	40	-
50	50	50	40	60	60	-5	-20	-60	0	10	30	30
40	50	50	50	60	60	40	40	40	30	20	30	-
-10	-10	0	20	20	20	10	30	40	40	40	40	-
40	50	60	60	50	50	50	40	20	30	40	30	44
80	80	60	50	50	40	40	40	40	50	50	40	44
-10	10	10	30	10	0	-10	30	30	20	20	40	9
40	50	30	40	50	70	70	40	60	90	70	80	35
-	70	70	80	80	80	90	100	90	80	110	60	56
40	60	60	50	40	40	30	20	30	30	30	30	42
30	30	30	40	70	80	70	50	60	50	40	20	43
80	90	60	50	50	60	50	60	50	40	40	40	40
20	20	20	10	0	-10	0	10	30	10	0	10	15
33	42	39	36	45	48	43	45	47	43	41	34	
30	30	29	31	30	30	30	31	31	31	30	31	

II. Hourly means of the quantities of positive and negative

Hour GMT Month		0	1	2	3	4	5	6	7	8	9	10	11
January	+	1	2	0	0	0	0	0	2	2	12	0	13
	-	2	1	0	0	0	0	0	2	1	14	0	1
February	+	7	0	0	0	0	0	0	0	0	0	0	0
	-	2	0	0	0	0	0	0	0	0	0	0	0
March	+	0	0	0	0	1	18	31	6	15	18	51	7
	-	0	0	0	0	0	6	34	60	15	39	11	14
April	+	1	0	0	0	0	0	0	0	0	0	0	0
	-	0	0	0	0	0	0	0	0	0	0	0	0
May	+	0	0	0	6	1	0	0	0	0	0	0	3
	-	1	0	0	3	1	0	0	0	4	0	0	3
June	+	0	0	1	0	0	0	0	12	2	0	0	3
	-	0	0	1	0	0	0	0	0	0	0	0	6
July	+	0	0	0	0	0	0	0	0	4	45	16	3
	-	0	0	0	12	0	0	0	0	2	39	28	2
August	+	0	0	0	1	83	1	0	0	0	0	0	0
	-	0	0	0	0	7	0	0	0	0	0	0	0
September	+	0	0	0	19	6	0	0	0	0	0	0	0
	-	0	0	0	23	0	0	0	0	0	0	0	0
October	+	0	0	0	0	0	0	0	0	0	0	1	1
	-	0	0	0	0	0	0	0	0	0	0	0	1
November	+	5	0	0	0	0	0	0	0	0	0	0	0
	-	6	5	0	0	0	0	0	0	0	1	0	0
December	+	1	0	1	0	0	1	2	2	0	0	0	0
	-	0	0	0	1	0	3	3	3	0	0	0	0

charges transporte by point-discharge for each month in 1986

[illegible]

Hour GMI Day	0	1	2	3	4	5	6	7	8	9	10	11
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II. Hourly means of the quantities of positive and negative

January	+ 30 - 15	26 3	32 1	42 0	19 0	33 6	4 0	1 0	5 2	5 14	2 0	2 0
February	+ 0 - 0	0 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
March	+ 0 - 0	0 0	1 1	8 11	0 0	1 0	5 11	0 0	0 0	0 1	1 1	0 1
April	+ 0 - 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
May	+ 0 - 5	0 0	3 0	2 3	14 6	0 1	13 0	10 30	1 0	3 3	0 0	0 0
June	+ 7 - 6	3 6	4 33	0 0	0 0	0 0	0 0	0 24	3 0	0 0	0 1	0 0
July	+ 0 - 0	0 0	0 0	11 0	6 3	0 0	6 0	11 6	9 25	13 13	0 0	4 18
August	+ 0 - 0	0 0	1 2	0 0	1 1	0 0	0 0	0 0	0 0	4 3	0 0	7 16
September	+ 0 - 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	6 9	6 19	1 2	0 0
October	+ 5 - 3	4 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
November	+ 0 - 0	0 0	10 0	13 1	5 7	9 7	1 9	4 1	1 0	0 0	0 0	0 1
December	+ 0 - 0	0 0	0 0	0 1	0 0	0 0	0 0	0 0	0 1	0 1	0 0	0 0

[illegible]