

III. ATMOSPHERIC ELECTRICITY

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

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

All data are presented in universal time (GMT).

Tables were compiled by F. MÄRCZ. Both the equipments and the methods of measurement of potential gradient and point-discharge have been described in the paper by P. BENCZE and F. MÄRCZ: „Atmosphärisch-elektrische und ionosphärische Messungen im Observatorium bei Nagycenk”. Observatoriumsberichte des Geophysikalischen Forschungslaboratoriums der Ungarischen Akademie der Wissenschaften vom Jahre 1966, Sopron, 1967. Further informations are given by P. BENCZE and F. MÄRCZ: „The Geophysical Observatory near Nagycenk. II. Atmospheric electric and ionospheric measurements” Acta Geod. Geoph. Mont Hung. 16/1981/353-357.

CHAPTER 1

The first part of the book discusses the basic concepts of the theory of functions of a real variable. It begins with a discussion of the real number system, including the properties of the real numbers and the construction of the real numbers from the rational numbers. The next section discusses the concept of a function, including the definition of a function, the domain and range of a function, and the properties of functions. The third section discusses the concept of a limit, including the definition of a limit, the properties of limits, and the concept of a continuous function. The fourth section discusses the concept of a derivative, including the definition of a derivative, the properties of derivatives, and the concept of a differentiable function. The fifth section discusses the concept of an integral, including the definition of an integral, the properties of integrals, and the concept of an antiderivative. The sixth section discusses the concept of a series, including the definition of a series, the properties of series, and the concept of a convergent series. The seventh section discusses the concept of a vector space, including the definition of a vector space, the properties of vector spaces, and the concept of a linear transformation. The eighth section discusses the concept of a matrix, including the definition of a matrix, the properties of matrices, and the concept of a determinant. The ninth section discusses the concept of a linear system, including the definition of a linear system, the properties of linear systems, and the concept of a solution. The tenth section discusses the concept of a differential equation, including the definition of a differential equation, the properties of differential equations, and the concept of a solution. The eleventh section discusses the concept of a partial differential equation, including the definition of a partial differential equation, the properties of partial differential equations, and the concept of a solution. The twelfth section discusses the concept of a vector field, including the definition of a vector field, the properties of vector fields, and the concept of a line integral. The thirteenth section discusses the concept of a surface integral, including the definition of a surface integral, the properties of surface integrals, and the concept of a volume integral. The fourteenth section discusses the concept of a double integral, including the definition of a double integral, the properties of double integrals, and the concept of a triple integral. The fifteenth section discusses the concept of a triple integral, including the definition of a triple integral, the properties of triple integrals, and the concept of a volume integral. The sixteenth section discusses the concept of a line integral, including the definition of a line integral, the properties of line integrals, and the concept of a surface integral. The seventeenth section discusses the concept of a surface integral, including the definition of a surface integral, the properties of surface integrals, and the concept of a volume integral. The eighteenth section discusses the concept of a volume integral, including the definition of a volume integral, the properties of volume integrals, and the concept of a surface integral. The nineteenth section discusses the concept of a surface integral, including the definition of a surface integral, the properties of surface integrals, and the concept of a volume integral. The twentieth section discusses the concept of a volume integral, including the definition of a volume integral, the properties of volume integrals, and the concept of a surface integral.

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.	50	60	50	10	30	70	90	90	140	130	[140]	170	150
2.	120	130	120	80	80	100	140	[130]	—	100	100	140	120
3.	10	50	30	10	20	120	130	140	120	[140]	160	120	120
4.	±S	+S	-10	0	-60	-50	40	30	80	80	[70]	70	80
5.	50	50	60	50	90	80	110	70	110	60	[70]	80	110
6.	70	80	100	120	110	70	60	70	100	110	[80]	90	70
7.	120	100	50	40	60	70	80	110	120	[100]	100	100	100
8.	70	70	70	70	60	50	90	80	60	80	[60]	30	20
9.	40	40	40	40	40	50	60	—	—	80	80	90	80
10.	30	40	30	±S	±S	±S	-10	30	70	50	[40]	70	70
11.	90	100	100	100	100	100	120	130	160	130	[90]	100	80
12.	80	10	20	30	10	0	-20	—	—	—	—	—	—
13.	60	50	50	50	80	80	70	110	110	110	[90]	90	100
14.	30	20	-S	-100	-10	-20	10	30	+S	40	[40]	0	-30
15.	140	100	±S	30	40	40	60	70	90	90	[70]	80	100
16.	60	70	70	70	70	60	100	—	—	100	100	70	70
17.	70	60	60	-50	-30	-30	-40	20	30	30	[10]	40	50
18.	100	60	30	30	30	30	50	100	90	90	[90]	80	70
19.	70	60	60	80	60	60	70	80	90	80	[70]	70	20
20.	-50	-30	-20	-20	30	0	-10	-10	-10	30	50	[30]	70
21.	60	70	50	40	30	30	40	60	70	[70]	70	80	90
22.	120	70	60	70	70	30	30	30	20	[10]	-40	-50	-30
23.	+S	-80	-50	-20	0	70	90	[30]	—	30	+S	90	70
24.	-80	-50	-100	-S	-20	40	-50	120	200	40	±S	±S	-80
25.	50	50	30	40	40	40	50	50	60	[60]	60	60	60
26.	50	30	30	40	40	50	60	60	80	[90]	110	120	120
27.	70	40	50	0	0	30	30	30	70	[80]	90	90	90
28.	70	90	80	80	90	80	60	70	50	[80]	130	140	130
29.	60	70	80	±S	±S	±S	-130	90	[150]	+S	+S	190	110
30.	80	-70	70	+S	80	120	80	—	—	30	50	30	10
31.	10	-10	-50	-30	30	20	10	-20	-20	-30	[-10]	-30	20
Means	59	44	40	32	40	48	47	66	85	72	73	77	68
Number of days	29	30	29	27	29	29	31	27	24	29	27	29	30

13	14	15	16	17	18	19	20	21	22	23	Daily means
170	160	120	130	90	100	130	120	80	80	110	103
130	140	130	120	140	150	140	90	60	50	50	111
140	100	90	90	90	110	120	50	50	20	±S	88
90	90	70	80	110	100	90	80	110	70	50	—
100	±S	±S	60	—S	110	120	130	110	90	70	—
70	70	70	90	110	110	110	70	60	90	70	85
100	90	100	90	100	130	150	160	50	50	70	94
20	20	20	20	40	50	50	40	50	50	40	50
70	80	80	90	80	70	70	80	50	60	60	—
80	40	70	80	70	80	80	100	100	90	90	—
90	90	90	100	80	100	70	90	80	70	80	98
—	—	—20	—40	—20	—40	40	40	70	140	70	—
80	60	50	70	30	100	60	+S	±S	—20	—10	—
—20	60	50	70	100	140	120	110	100	100	120	—
120	80	—S	±S	±S	±S	30	30	40	40	70	—
70	90	100	110	80	70	100	90	80	100	80	—
110	110	100	110	140	100	+S	±S	±S	±S	±S	—
90	100	110	80	80	+S	+S	+S	+S	100	80	—
—20	—40	—20	—20	30	20	10	30	30	—50	—50	33
170	120	90	100	90	40	50	40	70	70	50	40
80	60	110	100	100	60	70	160	150	+S	150	78
—50	—60	—80	—60	—90	—80	—110	—50	—90	—100	±S	—17
80	90	20	0	—80	—120	—110	—70	—80	—90	—80	—
+S	+S	+S	+S	50	90	160	120	130	80	50	—
60	±S	20	50	50	60	70	60	50	50	50	51
120	100	120	120	140	170	150	120	90	30	30	86
100	100	90	80	30	50	—20	40	60	30	60	54
120	110	130	110	110	60	50	70	60	50	40	86
120	160	150	+S	80	130	80	60	+S	160	—40	—
—20	—20	30	30	0	—20	—10	10	20	10	—50	—
—20	—50	20	30	110	150	190	120	130	80	60	30
78	72	68	68	67	72	71	71	63	52	49	
29	27	28	28	29	29	29	28	27	29	28	

February

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	80	120	70	90	70	70	60	140	+S	[+S]	±S	±S	90
2.	110	130	90	70	30	-20	-50	-20	-40	-30	[-30]	0	20
3.	20	0	10	40	40	50	40	0	40	50	[80]	110	100
4.	-50	-40	-20	-50	0	50	60	[90]	[100]	110	120	100	80
5.	60	70	80	70	90	90	90	-50	-50	60	[70]	120	140
6.	70	60	70	50	50	-S	-S	—	—	80	90	60	70
7.	20	30	30	40	20	20	30	30	50	50	[50]	70	50
8.	50	60	50	60	60	60	60	100	110	[90]	100	90	90
9.	60	+S	-10	-S	±S	±S	30	50	70	[70]	80	90	100
10.	70	80	80	80	80	70	80	+S	-20	80	[90]	110	100
11.	70	60	50	60	60	70	80	80	80	80	[70]	80	80
12.	80	60	60	50	50	40	60	70	80	90	[90]	100	100
13.	90	100	100	70	70	-10	30	—	—	90	110	90	100
14.	70	50	40	50	30	30	20	40	60	70	[70]	70	70
15.	20	10	-10	20	20	10	20	30	20	30	[30]	80	80
16.	20	20	20	30	20	30	30	70	70	60	[70]	90	110
17.	30	20	40	40	30	30	30	40	60	70	[80]	80	90
18.	50	30	30	20	20	30	50	50	60	90	[110]	100	90
19.	80	70	60	50	40	50	110	110	60	20	20	70	[100]
20.	-30	-30	-30	-10	0	0	-30	0	—	30	30	20	-20
21.	40	30	30	30	40	30	20	10	30	[10]	-30	-10	30
22.	-70	-80	-70	-100	-80	-80	-100	-130	[-110]	-90	-100	-100	-100
23.	-50	-60	-50	-70	-20	-30	0	+S	+S	±S	±S	100	30
24.	100	70	70	50	30	60	100	130	[+S]	160	110	80	100
25.	+S	+S	-50	30	60	50	0	40	80	[10]	-S	-S	40
26.	-20	±S	-S	50	90	100	110	150	+S	120	[100]	100	100
27.	30	30	60	30	60	60	30	—	—	60	60	110	110
28.	-10	60	50	-40	-100	-30	50	110	20	-80	[-10]	50	60
29.	0	20	30	50	50	50	30	-10	-60	-50	[-30]	30	0
Means	35	37	31	31	33	33	37	47	34	49	55	70	69
Number of days	28	26	28	28	28	27	28	24	21	27	26	27	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
+S	40	70	150	130	110	+S	+S	170	70	100	—
40	10	-10	0	60	50	70	70	70	60	30	30
30	70	60	70	40	40	0	-10	-50	-50	-40	31
80	90	100	110	140	120	130	120	100	100	80	72
130	150	130	100	100	70	80	150	180	80	110	88
60	60	20	10	20	30	40	-30	30	40	20	—
100	±S	±S	-S	50	70	80	90	80	70	40	—
80	80	80	90	0	50	80	0	-40	-20	0	58
90	90	80	80	100	110	110	100	80	90	80	—
90	80	80	90	100	100	90	100	90	60	80	81
80	70	70	80	80	90	100	100	100	90	90	78
110	120	150	170	140	120	130	130	110	100	90	96
100	110	120	90	100	110	120	120	100	30	100	—
70	70	70	80	80	50	20	20	20	20	0	49
80	90	100	100	100	70	70	40	50	40	30	47
120	100	100	80	80	70	70	30	30	40	20	58
100	120	110	70	70	100	110	60	60	50	20	63
90	100	80	70	90	120	120	70	50	40	70	68
90	70	100	80	70	10	30	30	30	20	20	58
30	30	30	50	60	50	30	30	0	-10	-10	10
30	20	30	10	20	0	-10	-50	-40	-20	-60	8
-100	-90	-100	-80	-20	-60	-50	-50	-40	-50	-60	-80
130	80	70	+S	±S	+S	+S	+S	±S	-S	200	—
100	100	110	110	60	80	+S	70	-40	-40	10	74
70	70	110	80	200	80	100	130	70	80	-10	—
100	100	80	70	50	30	10	±S	±S	±S	10	—
90	110	140	100	50	50	80	70	-20	0	-10	—
70	60	60	50	50	60	50	10	20	30	40	26
50	60	80	70	70	60	60	70	60	50	30	32
75	74	76	73	71	66	66	57	47	36	34	
28	28	28	27	28	28	26	26	27	27	29	

													March	
Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12	
1.	30	10	20	10	40	-30	-30	-20	20	[40]	—	—	70	
2.	0	20	70	+S	±S	±S	±S	-60	-160	+S	[90]	40	60	
3.	40	50	70	60	20	10	70	70	+S	+S	[50]	90	60	
4.	20	10	30	0	10	±S	-10	10	40	10	[10]	50	50	
5.	10	20	10	10	20	20	-10	—	—	90	110	110	120	
6.	30	20	30	-10	20	30	40	40	80	[100]	50	70	100	
7.	50	60	50	40	30	40	50	60	100	[110]	90	110	130	
8.	50	50	90	70	70	80	70	90	100	[120]	120	110	110	
9.	60	60	50	70	80	90	100	120	140	[150]	160	170	160	
10.	40	40	50	70	90	110	90	90	100	100	[110]	120	130	
11.	60	70	70	60	50	40	30	70	80	70	[80]	80	90	
12.	130	40	70	80	160	150	160	140	—	80	100	100	80	
13.	50	50	40	50	50	50	70	70	80	70	[70]	80	100	
14.	-20	-10	-30	-10	40	50	70	70	70	100	[110]	100	110	
15.	30	30	30	30	30	30	30	40	50	[50]	50	30	30	
16.	30	30	40	50	50	50	60	—	—	—	[50]	50	50	
17.	40	30	50	40	50	60	70	80	70	70	60	30	[30]	
18.	30	40	30	-20	-10	-10	-30	20	[60]	80	70	60	50	
19.	40	50	50	60	70	100	120	[110]	—	130	130	130	140	
20.	50	50	50	50	40	50	50	50	60	—	—	—	—	
21.	60	60	60	50	40	20	-20	0	30	50	[60]	60	—	
22.	80	70	60	60	50	50	70	90	100	—	—	—	100	
23.	60	60	60	60	50	70	90	80	110	120	—	—	[110]	
24.	40	60	70	80	90	80	100	100	[110]	120	130	100	70	
25.	30	30	30	30	0	-20	-10	30	60	30	[30]	10	20	
26.	20	-10	40	40	80	90	—	—	70	70	(70)	50	60	
27.	40	30	30	40	40	50	80	[100]	80	60	60	70	60	
28.	40	50	50	60	80	100	110	—	—	—	—	60	50	
29.	40	40	30	30	40	30	40	40	[50]	50	50	50	50	
30.	-20	10	0	-50	-130	-10	-80	-60	—	—	30	60	60	
31.	20	20	20	40	40	40	50	60	[80]	70	50	50	50	
Means	38	37	43	38	43	49	49	55	66	81	77	76	79	
Number of days	31	31	31	30	30	29	29	27	24	24	25	27	29	

13	14	15	16	17	18	19	20	21	22	23	Daily means
60	40	20	0	-20	40	80	60	50	20	-10	—
70	70	60	40	60	70	130	150	70	60	50	—
50	110	110	-10	10	20	20	20	0	-30	20	—
30	20	30	40	40	70	70	60	40	20	20	29
140	140	130	130	130	110	120	120	110	60	80	—
120	120	110	110	90	100	90	70	80	60	50	67
140	130	110	60	50	-10	0	20	40	40	40	64
120	130	120	130	140	140	140	120	80	60	50	98
130	150	130	120	110	90	90	70	50	40	40	101
140	140	130	140	110	110	110	110	110	80	70	100
99	90	80	70	80	60	80	120	120	60	90	75
90	80	90	80	70	70	60	50	50	60	60	89
100	100	100	90	80	20	-50	-20	-30	-30	-30	48
100	90	80	80	90	80	70	70	40	30	30	59
30	30	40	50	60	70	40	40	40	40	30	39
50	60	50	40	50	40	50	50	40	40	30	—
40	40	30	30	30	30	50	40	40	30	30	45
90	80	100	120	160	170	110	100	120	100	100	68
130	130	110	110	100	80	60	60	50	40	40	89
100	110	90	70	70	80	70	80	80	70	60	—
—	60	50	50	60	70	80	80	70	80	90	—
90	100	110	120	110	110	120	90	80	80	60	—
120	130	130	100	100	100	80	80	70	30	10	—
60	60	70	60	60	70	60	50	50	40	40	74
20	30	40	10	60	70	60	40	40	-20	10	26
50	50	40	40	20	-30	±S	50	50	40	40	—
20	±S	20	20	30	40	50	50	50	30	30	47
50	40	40	50	50	50	60	50	40	40	40	56
60	50	50	60	70	60	50	40	30	30	10	44
60	70	80	120	70	70	50	0	40	80	50	—
40	40	50	50	50	60	60	70	50	40	30	47
80	83	77	70	71	68	69	64	56	43	41	
30	30	31	31	31	31	30	31	31	31	31	

April

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	20	30	40	20	10	10	20	[40]	50	50	50	50	50
2.	50	40	50	50	50	40	40	—	[20]	30	(20)	10	60
3.	30	—30	—40	—20	—20	—10	—20	—20	60	[80]	90	80	60
4.	±S	30	30	20	20	40	70	70	[90]	80	80	80	80
5.	60	80	50	20	20	30	70	70	80	[80]	70	70	60
6.	20	0	0	0	0	20	50	60	[90]	—	—	—	100
7.	—50	—30	—10	—20	0	0	0	—10	—10	[30]	50	50	50
8.	±S	±S	10	10	20	10	10	10	20	[40]	70	90	90
9.	—10	—10	0	—10	—20	—10	—	—	—20	—10	—10	—20	—20
10.	—20	—50	10	10	10	0	20	30	40	50	—	—	—
11.	40	30	30	10	20	30	50	50	50	[60]	50	40	40
12.	0	0	20	30	30	50	50	60	[50]	60	—	—	—
13.	0	—30	—30	0	—10	—20	—30	—30	—20	0	0	10	[30]
14.	20	30	30	20	30	40	60	80	100	[120]	120	130	130
15.	40	40	20	30	30	20	50	80	100	[90]	80	60	60
16.	30	10	20	30	20	40	—	—	80	80	80	60	50
17.	—	—	—	—	—	—	—	50	60	[50]	40	50	50
18.	10	—10	—10	20	±S	30	50	60	80	[60]	50	50	50
19.	50	50	50	50	50	50	70	90	90	70	[60]	[60]	50
20.	70	50	50	50	70	80	100	—	—	—	—	110	120
21.	30	40	40	50	50	40	40	50	60	50	—S	±S	30
22.	20	0	—10	—30	50	30	60	90	[100]	[120]	110	100	80
23.	±S	40	±S	±S	0	0	30	40	50	40	50	—	40
24.	10	10	20	30	40	60	[60]	[60]	60	60	80	70	60
25.	20	20	20	30	30	30	70	90	90	[90]	100	80	80
26.	40	40	40	40	40	70	50	50	[60]	80	80	80	60
27.	80	80	90	100	120	140	130	[80]	100	90	70	70	50
28.	40	50	70	60	80	70	60	[±S]	±S	30	120	±S	—S
29.	—10	—20	—30	—30	—20	—	—	80	[100]	100	90	90	90
30.	30	40	40	30	30	40	50	50	50	40	40	[40]	—
Means	24	19	21	21	27	33	47	51	60	61	68	63	62
Number of days	26	28	28	28	28	28	26	25	28	28	24	24	26

13	14	15	16	17	18	19	20	21	22	23	Daily means
50	50	50	50	50	50	50	50	50	50	50	42
30	-10	0	-10	-10	0	0	-10	-10	-10	60	—
40	30	-20	-30	±S	±S	±S	±S	±S	±S	±S	—
90	90	80	80	60	50	90	90	90	80	70	68
60	50	50	50	40	50	40	20	20	20	20	49
120	110	100	90	80	60	60	20	-70	-90	-70	—
60	70	40	30	-10	-30	+S	-S	-S	-S	±S	—
90	80	60	50	30	20	10	10	0	10	0	—
-10	0	-10	-10	-20	-40	-30	-100	-50	-50	0	—
120	120	110	70	50	50	30	30	40	40	40	—
50	60	50	50	30	10	10	20	10	0	0	33
50	50	40	30	20	20	10	-10	-20	-50	-30	—
50	50	60	40	30	30	30	30	30	20	10	10
140	130	120	70	60	80	60	50	50	30	30	72
70	70	50	60	50	50	50	40	30	10	20	50
50	50	50	50	50	50	50	40	30	10	—	—
40	30	20	0	-10	-10	-10	0	-10	0	0	—
50	50	40	50	60	70	60	50	50	40	40	44
60	50	70	80	80	70	90	110	80	80	80	68
130	130	120	110	70	80	60	50	40	40	30	—
[60]	50	50	50	60	50	40	40	20	20	10	—
80	60	60	60	40	30	20	20	30	±S	±S	—
+S	+S	±S	+S	0	40	50	40	40	30	30	—
60	70	80	70	80	100	120	130	80	50	40	63
70	80	80	70	80	90	90	90	70	60	50	66
50	40	30	0	±S	-10	-30	±S	+S	60	80	—
60	60	20	20	70	90	90	+S	-S	10	30	—
±S	-S	±S	-S	70	70	30	±S	±S	0	10	—
100	100	100	90	60	60	50	40	40	30	30	—
—	—	—	-10	0	-10	30	-50	-40	-40	-10	—
67	64	56	45	42	40	41	32	24	17	24	
27	27	27	28	28	29	28	25	25	27	26	

May

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	-30	-50	-60	30	-10	-20	-50	-10	10	30	30	[50]	50
2.	50	40	20	0	40	60	[70]	90	80	70	70	60	50
3.	50	50	50	50	50	60	70	50	50	[50]	50	—	—
4.	50	50	50	50	40	50	60	80	90	80	60	60	60
5.	20	10	30	40	40	50	50	[50]	50	40	40	40	40
6.	40	30	40	30	30	20	40	40	40	[50]	50	70	60
7.	40	40	30	40	40	60	60	—	80	80	±S	±S	±S
8.	0	60	50	30	40	60	40	40	80	[60]	60	10	-S
9.	40	30	30	30	20	40	10	0	30	[40]	50	60	60
10.	20	30	20	20	30	20	30	-50	30	[60]	50	10	-S
11.	10	20	30	30	40	40	50	0	10	[30]	30	10	-10
12.	30	0	-20	-20	-70	-60	0	10	20	30	[60]	30	40
13.	20	20	20	10	20	0	-10	10	30	[40]	40	40	40
14.	30	20	40	50	70	90	80	—	70	70	70	50	50
15.	20	-10	-10	20	40	40	40	50	[60]	60	50	50	50
16.	50	50	50	50	50	50	50	30	20	[40]	20	0	40
17.	30	40	50	40	50	50	60	70	70	[50]	40	40	40
18.	40	40	40	40	40	50	60	50	[50]	50	50	50	40
19.	30	30	30	40	40	50	[50]	[60]	50	50	30	30	40
20.	50	40	40	50	50	50	[50]	[50]	50	50	40	40	40
21.	30	30	±S	±S	±S	40	—	[40]	40	±S	(-20)	-10	-10
22.	40	40	40	30	40	50	50	[50]	30	40	40	-S	(±S)
23.	30	30	40	30	30	40	50	50	[50]	[30]	40	40	30
24.	10	10	10	10	0	60	50	80	[60]	50	40	40	40
25.	±S	20	20	30	30	40	50	30	[40]	40	40	40	±S
26.	30	30	20	20	30	20	40	70	[50]	50	±S	±S	-S
27.	30	30	30	30	30	40	40	30	[20]	20	20	20	30
28.	30	20	-20	-S	-S	-S	—	—	40	60	90	80	40
29.	20	30	20	20	30	20	10	10	[-10]	50	70	80	70
30.	10	10	10	10	20	30	±S	140	80	90	[80]	120	±S
31.	40	40	30	30	40	60	60	50	60	70	([60])	(60)	40
Means	29	27	24	29	31	39	41	42	46	51	49	43	40
Number of days	30	31	30	29	29	30	28	28	31	30	27	26	23

13	14	15	16	17	18	19	20	21	22	23	Daily means
40	60	70	70	80	90	70	40	30	10	40	24
50	40	40	40	40	40	30	30	30	30	40	46
50	50	40	50	50	50	50	50	50	50	50	51
50	40	50	50	40	40	30	40	30	20	20	50
40	40	50	40	40	50	50	40	40	40	40	40
70	±S	±S	±S	±S	20	30	30	30	20	30	—
±S	±S	±S	±S	±S	±S	0	30	0	0	-10	—
±S	-S	-20	-20	-100	-100	30	10	0	0	10	—
50	40	40	30	40	60	70	70	60	40	30	40
±S	-40	-60	-40	-10	-20	-30	-10	-10	0	0	—
20	0	0	-10	20	20	10	0	-20	-30	-10	12
30	40	50	50	40	30	40	20	10	0	-10	15
40	50	50	30	40	40	40	30	20	10	40	28
60	50	60	50	50	50	40	50	60	80	140	60
50	50	50	50	40	50	50	50	40	40	50	41
40	50	40	50	+S	-S	10	40	50	30	10	—
—	—	—	—	—	40	50	50	50	50	40	—
40	50	50	50	40	40	40	30	30	40	40	44
40	50	40	40	40	40	40	50	50	40	40	42
30	(30)	(40)	40	40	40	30	30	-10	40	30	—
-10	-60	0	-120	-70	20	40	40	30	30	30	—
0	±S	30	40	50	40	50	60	50	40	40	—
40	50	60	70	80	60	+S	±S	-S	30	30	—
40	50	±S	—	—	—	—	±S	0	±S	±S	—
+S	±S	±S	40	40	30	30	30	30	30	40	—
-S	-S	±S	40	50	50	40	40	40	40	30	—
40	40	40	50	50	50	50	50	+S	30	20	34
50	60	60	60	50	60	70	60	10	30	30	—
60	60	50	±S	±S	±S	10	-50	-40	20	30	—
±S	+S	50	50	50	50	50	70	50	40	40	—
30	30	30	30	20	20	20	20	20	10	20	—
40	36	36	32	32	36	36	34	25	27	31	
24	22	24	26	25	27	29	29	29	30	30	

													June	
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12	
Day														
1.	10	20	20	20	40	40	30	40	40	[40]	40	30	40	
2.	40	40	40	40	40	40	50	[40]	50	50	40	40	40	
3.	30	40	40	40	40	50	40	[30]	30	20	10	20	20	
4.	40	30	30	30	40	40	—	—	30	30	20	±S	±S	
5.	30	30	30	30	30	30	30	60	[40]	30	20	20	—	
6.	40	30	30	—10	—10	50	40	60	50	50	[50]	30	+S	
7.	40	30	30	30	30	30	40	30	40	±S	—40	[20]	[70]	
8.	20	20	30	30	30	30	70	40	40	20	—S	[110]	60	
9.	20	10	—10	0	30	80	110	60	30	[+S]	+S	+S	—30	
10.	20	20	30	30	30	60	80	[70]	70	70	70	50	50	
11.	20	20	10	30	20	30	30	40	—	80	80	70	60	
12.	60	50	40	60	70	80	110	130	[130]	100	80	70	60	
13.	20	20	10	20	30	30	30	40	[40]	40	40	40	30	
14.	40	30	20	20	20	30	40	40	[30]	[20]	20	30	30	
15.	10	—40	—10	10	10	—20	10	120	+S	[90]	80	80	±S	
16.	50	50	60	40	50	50	40	50	[70]	[60]	50	40	40	
17.	40	10	0	30	30	50	60	70	80	80	[60]	60	60	
18.	30	20	30	30	40	60	[40]	—	70	70	60	60	70	
19.	0	20	20	20	30	40	50	70	70	80	[70]	50	50	
20.	0	10	10	0	20	30	40	40	60	[80]	80	60	60	
21.	30	30	30	30	30	40	40	40	40	40	40	+S	[±S]	
22.	—10	—10	10	20	30	90	60	60	40	[40]	40	30	40	
23.	20	20	10	10	10	20	40	50	50	40	40	50	60	
24.	20	20	20	10	20	30	—60	—20	0	20	[30]	30	10	
25.	10	10	20	40	40	50	[40]	—	30	40	50	50	40	
26.	20	10	10	10	10	—	—	110	60	40	30	(60)	[30]	
27.	20	10	10	20	20	30	30	40	[50]	50	50	30	30	
28.	30	30	30	30	30	40	40	40	40	30	[30]	40	±S	
29.	30	30	20	—20	0	20	10	(—10)	—	—	—	—	30	
30.	20	20	30	20	30	30	70	50	[30]	30	30	20	20	
Means	25	21	22	22	28	41	43	54	49	50	43	45	40	
Number of days	30	30	30	30	30	29	28	26	27	27	27	25	24	

13	14	15	16	17	18	19	20	21	22	23	Daily means
40	40	40	50	40	50	50	40	40	40	40	37
40	30	40	40	40	40	40	30	30	30	30	39
20	30	40	40	40	50	40	40	40	40	40	35
±S	30	30	40	30	0	20	0	10	30	30	—
—	30	40	50	30	40	40	30	30	40	30	—
0	100	40	30	30	40	30	40	40	30	30	36
60	50	50	40	40	40	40	30	30	30	20	34
—	—	—	—	30	±S	—S	+S	20	20	20	—
+S	100	100	50	50	30	30	30	20	20	20	—
60	60	60	60	60	50	40	30	30	30	30	48
40	20	50	50	70	30	40	20	20	20	50	39
50	50	50	40	50	60	60	50	40	30	20	64
30	40	40	40	40	40	40	40	40	40	40	34
30	20	30	30	20	±S	0	10	30	50	50	28
50	30	50	40	50	40	60	60	70	60	60	41
30	40	30	30	40	50	30	30	30	30	20	42
50	60	60	60	70	60	50	40	40	40	40	50
60	60	50	40	40	30	40	30	20	20	20	43
40	40	40	40	(50)	40	30	20	20	20	10	38
60	50	40	40	40	40	60	50	50	40	40	42
±S	±S	±S	±S	20	20	20	20	—S	±S	±S	—
30	40	50	60	50	40	40	40	40	40	30	38
±S	+S	±S	40	40	40	30	40	40	30	30	—
0	—10	0	20	30	30	20	20	20	20	20	13
50	40	40	40	30	30	+S	(30)	—	(20)	20	—
30	40	40	40	50	40	30	30	30	30	30	—
30	30	30	40	40	40	30	30	30	40	30	32
(±S)	—	—	—	—	—	—	—	—	—	—10	—
—20	40	—100	±S	—	—	(10)	20	20	20	30	—
30	30	+S	30	30	30	30	30	30	30	30	—
35	42	38	42	41	38	36	31	31	32	29	
23	26	25	25	27	26	26	27	27	27	29	

July

Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	30	20	30	30	30	60	60	[70]	70	60	30	30	30
2.	-10	-10	0	10	20	30	—	—	60	80	40	—	—
3.	30	30	30	40	40	60	160	120	80	[40]	20	-10	40
4.	50	60	50	40	50	40	30	20	10	40	±S	±S	40
5.	30	30	20	20	30	30	40	40	60	60	50	[40]	40
6.	40	30	30	20	30	+S	—	—	40	90	20	20	20
7.	30	50	40	30	50	70	70	80	[70]	90	80	±S	-10
8.	30	40	30	40	40	40	70	[90]	90	80	50	50	40
9.	30	30	30	30	40	40	—	—	50	40	40	40	50
10.	20	30	30	40	40	50	50	50	[40]	50	50	50	50
11.	50	50	40	40	50	50	50	50	50	40	40	[40]	30
12.	40	30	30	30	30	[30]	50	50	50	50	50	50	50
13.	40	50	40	50	50	60	70	[60]	[70]	60	70	70	60
14.	50	30	30	30	40	40	[40]	40	40	30	20	30	50
15.	10	-S	30	20	20	40	40	[40]	[30]	30	30	20	10
16.	—	—	—	—	—	—	—	—	—	0	50	+S	50
17.	40	40	30	40	40	—	—	50	60	50	50	40	30
18.	20	30	40	20	40	50	[50]	50	50	50	50	50	50
19.	20	0	60	50	40	30	[10]	40	50	50	40	40	50
20.	50	20	30	20	30	[40]	[50]	60	70	70	30	70	60
21.	20	30	30	30	40	[40]	[50]	60	70	60	60	50	50
22.	30	30	40	30	40	50	50	[70]	80	80	80	80	70
23.	50	50	40	40	50	50	—	—	200	130	60	30	±S
24.	50	50	50	50	40	[60]	[80]	90	100	100	100	80	70
25.	20	30	30	30	40	[40]	[80]	60	50	70	70	70	50
26.	30	30	50	30	40	40	—	—	—	—	[100]	100	40
27.	60	60	50	40	60	60	50	40	[40]	10	-10	20	40
28.	50	40	50	40	30	30	40	[30]	-10	40	30	20	10
29.	10	20	30	40	40	40	[30]	[20]	20	30	30	30	30
30.	10	10	0	10	10	40	—	[70]	30	40	40	40	40
31.	40	40	50	40	40	40	40	50	[40]	40	10	10	30
Means	32	33	35	33	38	45	55	56	57	55	46	43	40
Number of days	30	29	20	30	30	28	23	25	29	30	30	27	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
30	30	30	30	30	30	30	20	10	10	10	34
—	—S	±S	—	—	40	50	30	40	30	20	—
20	40	40	50	40	60	70	50	60	50	50	50
30	40	30	±S	—10	20	30	40	40	30	20	—
30	40	30	40	40	50	60	50	50	40	40	40
20	40	30	30	50	50	40	40	30	20	20	—
60	70	40	60	50	40	30	40	40	30	40	50
30	40	40	30	40	40	40	40	40	30	30	45
40	50	50	50	40	50	40	30	20	20	20	—
50	50	50	40	50	50	50	50	40	40	40	44
30	30	40	40	50	50	50	50	40	40	40	43
50	50	50	50	50	50	30	20	20	30	—S	41
50	40	20	30	40	50	50	+S	50	60	50	52
50	40	50	50	50	40	50	40	40	30	30	39
0	±S	—S	0	—	—	—	—	—	—	—	—
30	40	40	40	40	40	50	50	50	40	30	—
30	30	40	40	50	60	70	70	60	40	40	—
50	50	50	60	60	80	80	60	50	40	30	48
50	50	40	50	40	30	30	30	40	40	±S	38
50	50	50	50	60	50	50	40	30	30	40	46
50	50	50	50	40	40	50	40	40	30	30	44
60	50	+S	±S	—	—	30	20	30	50	30	—
±S	10	30	40	30	40	40	30	50	40	40	—
70	50	60	60	50	40	40	30	30	20	30	58
60	50	40	30	40	40	40	40	50	40	30	46
30	30	20	30	30	40	50	60	70	70	60	—
10	30	20	30	30	30	30	30	30	50	50	36
0	10	—10	10	30	40	40	40	10	10	10	25
40	30	20	30	50	50	60	50	40	30	20	33
50	50	50	50	50	40	40	40	40	30	30	35
40	30	20	40	40	40	40	40	40	40	40	37
38	40	36	40	41	44	45	40	39	35	33	
29	29	28	28	28	29	30	29	30	30	28	

August

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	60	60	40	50	60	60	50	50	[50]	40	30	20	20
2.	40	30	40	40	40	80	70	70	[110]	—	—	60	70
3.	40	40	40	40	30	50	60	[80]	[90]	100	110	100	90
4.	30	30	20	30	30	40	40	30	[40]	70	50	50	40
5.	30	30	30	40	40	50	40	[30]	30	30	40	40	40
6.	20	20	30	20	20	10	—	—	±S	±S	±S	60	50
7.	50	—	—	—	—	—	—	—	+S	[60]	80	100	90
8.	—	—	—	—	—	30	80	150	+S	[160]	100	60	40
9.	30	30	30	50	80	110	110	100	60	50	50	[50]	20
10.	60	40	—	—	—	—	+S	100	[100]	60	50	±S	—S
11.	50	40	30	30	30	50	50	60	[70]	60	50	50	50
12.	20	20	20	±S	—	—	100	[+S]	90	80	50	50	40
13.	20	20	20	20	30	40	50	—	—	100	90	70	60
14.	30	40	40	30	30	40	60	60	90	[90]	90	90	80
15.	30	30	30	20	20	20	40	40	50	[60]	60	60	70
16.	10	10	10	10	20	40	40	40	40	+S	±S	±S	±S
17.	30	40	40	40	40	50	130	170	[130]	100	90	70	60
18.	10	20	30	30	40	40	100	130	[80]	80	80	70	80
19.	40	40	40	30	30	70	90	[120]	100	100	80	60	40
20.	50	40	40	50	40	50	80	70	90	100	—	—	60
21.	30	40	30	20	40	50	[60]	[60]	60	60	60	40	30
22.	30	20	10	10	20	20	30	40	40	20	10	10	20
23.	20	20	30	20	30	40	50	40	40	[30]	40	20	0
24.	40	40	40	40	30	40	40	30	0	[−70]	[−50]	−20	0
25.	40	30	10	60	40	40	50	50	[40]	50	50	40	30
26.	10	0	±S	±S	0	10	−20	[50]	90	30	40	30	30
27.	60	60	60	60	60	100	[160]	—	130	120	100	80	80
28.	30	30	30	30	30	60	90	80	50	70	50	[40]	50
29.	30	30	30	30	30	30	40	40	50	[50]	40	30	40
30.	20	20	20	30	30	30	50	50	50	40	[50]	60	60
31.	20	10	20	30	20	30	60	70	60	[40]	40	50	30
Means	33	30	30	33	34	46	64	70	68	64	57	51	47
Number of days	30	29	27	26	27	28	28	26	27	28	27	28	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
10	±S	±S	±S	—	—	(80)	70	50	50	50	—
70	60	60	80	80	60	60	70	50	40	30	—
80	80	80	70	60	50	40	40	40	40	40	62
40	40	50	50	50	40	40	30	40	40	30	40
30	30	40	40	40	50	40	30	20	20	20	35
50	60	70	50	50	40	30	30	30	20	±S	—
70	50	50	40	40	50	40	50	50	—S	±S	—
50	50	50	40	30	50	50	30	30	20	40	—
—S	±S	—	—	—	—	30	30	±S	±S	40	—
—S	40	—S	50	40	40	40	50	50	50	40	—
±S	±S	—	30	50	50	60	50	30	30	20	—
40	30	20	—90	30	40	30	30	30	20	20	—
70	80	70	80	100	90	60	80	80	60	40	—
80	90	70	70	60	60	70	70	50	30	30	60
70	80	80	60	30	30	30	40	30	20	10	42
—	—	80	110	110	60	50	30	20	30	30	—
50	—S	±S	80	60	40	40	50	30	20	10	—
70	60	70	50	50	50	60	60	30	30	30	56
30	40	50	50	50	30	70	80	70	70	60	60
60	60	60	50	50	40	40	60	60	50	40	—
40	40	30	30	30	50	50	60	50	40	30	43
20	30	[40]	50	40	40	40	40	40	30	20	28
—10	10	30	40	50	50	60	50	50	40	40	33
0	—10	20	40	40	50	60	60	60	70	60	25
40	40	50	70	40	50	40	20	30	30	20	40
20	40	20	+S	—S	30	30	+S	—	—	—	—
70	60	70	60	50	50	40	40	40	30	30	70
50	40	30	30	30	30	30	30	30	30	30	42
40	40	30	40	30	30	30	30	30	30	30	35
50	50	30	30	30	30	40	30	30	30	20	37
40	40	60	60	50	50	40	40	40	30	30	40
46	47	50	49	49	46	45	46	41	36	32	
27	26	26	28	28	29	30	30	29	28	28	

September

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	30	30	30	30	30	40	40	50	70	50	50	40	30
2.	30	30	30	30	30	30	50	40	60	[70]	70	50	50
3.	30	40	40	40	50	60	50	—	50	40	50	40	30
4.	60	60	50	60	50	50	60	60	80	60	50	50	[40]
5.	20	20	30	40	40	40	40	10	[—30]	[20]	30	60	60
6.	20	30	30	30	30	40	70	80	[100]	120	90	80	40
7.	60	70	70	80	60	90	160	140	110	[100]	130	110	100
8.	—	(30)	20	20	30	40	80	[170]	[160]	90	80	60	50
9.	(10)	10	20	10	10	30	50	50	50	50	60	50	50
10.	50	40	40	40	40	50	—	—	40	40	20	20	30
11.	±S	0	0	40	40	60	80	+S	+S	100	90	[60]	60
12.	30	60	30	20	40	70	30	40	20	[—10]	90	+S	±S
13.	70	70	80	70	60	90	190	200	160	[90]	70	120	140
14.	40	60	60	80	90	130	180	130	80	[90]	80	70	70
15.	110	190	240	160	70	30	110	90	80	70	[40]	30	40
16.	—20	120	100	60	60	100	190	130	—S	+S	—10	10	90
17.	70	80	80	90	60	90	—	—	—	120	70	20	40
18.	40	40	40	40	30	40	70	90	80	[40]	10	20	30
19.	40	40	60	50	50	60	100	80	80	70	[40]	[30]	30
20.	30	40	20	30	30	40	50	60	60	[70]	70	70	80
21.	30	30	40	50	40	0	±S	±S	—S	±S	[100]	90	20
22.	120	+S	50	80	70	80	50	30	—10	60	[30]	50	80
23.	70	80	30	60	40	50	50	70	70	70	[60]	50	50
24.	±S	±S	—S	—S	—S	40	—	—	+S	10	—70	0	30
25.	60	60	70	60	70	90	90	50	170	160	130	120	±S
26.	40	50	50	50	60	80	100	90	90	70	[60]	[40]	40
27.	60	60	—30	30	60	70	60	70	80	60	40	[70]	40
28.	50	40	40	40	40	50	60	[60]	60	70	90	70	70
29.	80	90	120	120	130	110	60	40	60	50	130	[110]	[90]
30.	150	130	130	80	60	80	40	30	30	30	20	[30]	20
Means	53	58	54	55	51	61	81	78	73	66	59	56	54
Number of days	26	27	29	29	29	30	26	24	24	28	30	29	28

13	14	15	16	17	18	19	20	21	22	23	Daily means
50	60	70	70	70	60	80	70	50	50	40	50
50	60	70	70	60	50	50	40	30	40	30	47
20	30	40	50	50	60	60	60	70	70	60	47
40	30	30	40	40	40	40	30	30	40	30	47
20	-60	-10	30	40	50	40	40	40	30	20	26
±S	—	—	+S	+S	—	—	—	—	(20)	10	—
100	90	90	80	60	60	40	±S	—	—	—	—
40	40	40	50	-S	—	—	—	—	—	—	—
60	50	60	60	60	70	70	70	60	50	50	48
±S	±S	+S	±S	±S	+S	60	60	60	40	70	—
70	60	80	+S	-S	30	0	-60	30	30	20	—
70	-20	40	60	60	40	30	40	30	60	80	41
170	190	140	110	100	100	110	40	40	30	40	103
70	80	80	60	90	80	90	100	110	110	100	89
20	+S	30	40	70	90	120	90	30	60	±S	—
20	-60	80	40	70	-S	80	90	30	10	70	—
70	80	60	50	60	60	40	50	30	50	50	—
30	40	40	30	30	30	30	20	40	40	50	40
40	40	0	10	30	50	70	60	50	50	40	49
70	60	80	90	80	90	50	60	60	50	30	57
50	120	100	90	80	110	140	40	30	60	100	—
30	30	50	60	60	70	70	60	60	50	40	55
30	40	40	30	30	-S	±S	-S	±S	±S	±S	—
90	90	70	80	90	100	100	100	100	80	80	—
±S	-S	±S	±S	-S	-10	30	50	30	40	40	—
50	60	70	70	60	80	90	60	70	80	70	66
50	60	60	70	70	70	70	100	70	50	50	58
80	70	50	40	50	70	90	90	100	120	150	68
80	60	30	20	30	40	50	90	130	+S	+S	—
60	60	40	30	20	10	10	10	10	0	0	45
57	52	57	55	58	60	63	56	53	52	53	
27	26	27	26	25	25	27	26	26	25	25	

												October	
Hour GMT	0	1	2	3	4	5	6	7	8	9	10	11	12
Day													
1.	10	10	30	40	70	30	30	30	—	50	40	10	10
2.	30	30	30	50	50	50	50	60	70	50	60	50	40
3.	30	40	40	40	50	50	70	80	70	70	[70]	50	50
4.	—S	0	—40	±S	—S	—20	10	30	70	60	[50]	40	50
5.	10	20	0	—10	30	30	40	70	70	50	[+S]	±S	30
6.	10	20	30	20	20	40	50	50	70	80	90	[70]	60
7.	—10	10	50	40	50	50	50	50	50	40	50	[60]	50
8.	50	50	50	50	50	50	40	50	—	+S	70	70	50
9.	30	30	30	30	40	40	60	70	70	70	40	40	[60]
10.	40	50	60	50	50	50	80	100	80	60	[70]	80	70
11.	40	80	80	70	30	60	50	—40	—10	10	30	[30]	50
12.	70	60	60	50	40	40	70	60	60	60	60	70	50
13.	40	40	40	30	30	20	40	70	40	30	30	40	[60]
14.	30	20	30	30	40	30	40	90	80	70	50	50	[50]
15.	20	10	30	30	30	40	70	—	—10	20	40	40	40
16.	40	40	20	0	—10	10	10	20	30	30	[40]	40	60
17.	50	50	60	50	40	40	60	40	30	40	[50]	50	60
18.	—30	—30	—20	—20	—30	10	40	50	40	20	30	30	[20]
19.	40	30	30	30	40	80	70	110	130	90	40	90	[90]
20.	—10	—10	—10	—20	—10	—10	10	40	70	70	60	[60]	40
21.	40	20	30	20	10	0	0	0	10	30	40	40	40
22.	30	20	10	0	20	20	20	—	—	30	40	50	70
23.	80	60	50	40	40	30	40	50	40	60	50	[70]	80
24.	10	10	20	30	10	30	30	20	40	50	[30]	20	20
25.	30	30	20	10	20	0	0	20	—10	—10	20	10	[30]
26.	30	20	0	0	0	20	—	30	40	60	[40]	70	70
27.	—10	0	0	0	0	—10	—20	10	[80]	130	130	170	110
28.	30	20	30	10	10	—10	—10	—20	—20	—10	—10	[—10]	—10
29.	30	10	10	30	20	10	—10	0	—	80	100	140	140
30.	20	80	60	30	20	20	—	—	—	—	—	—	—
31.	—	—	—	—	—	—	—	—	—	—	—	—	—
Means	27	27	28	25	26	27	35	42	48	50	50	55	53
Number of days	29	30	30	29	29	30	28	27	25	28	28	28	29

13	14	15	16	17	18	19	20	21	22	23	Daily means
40	40	40	-10	0	30	30	30	30	50	40	30
30	60	±S	±S	±S	-30	20	10	40	0	20	—
60	60	50	50	70	70	50	-S	-S	±S	-S	—
50	60	70	80	90	90	80	50	-20	-50	-30	—
50	20	10	20	30	50	30	40	50	40	10	—
70	70	70	50	10	20	20	30	20	30	20	43
50	50	50	70	60	60	50	50	40	50	40	46
30	40	60	80	90	80	90	80	40	30	30	—
50	50	60	40	40	50	70	50	50	40	30	48
60	60	60	70	60	40	70	80	80	90	80	66
50	60	50	40	70	70	70	40	30	60	80	46
70	80	80	90	80	70	60	30	20	40	50	59
80	80	100	60	60	40	40	40	50	40	40	48
60	60	60	70	100	80	60	40	40	30	20	51
40	40	40	40	30	20	40	90	70	60	50	38
60	70	80	80	80	70	80	80	60	50	70	43
60	50	40	20	-20	-30	-50	-50	-50	-30	-40	22
30	20	20	40	60	60	50	50	30	30	30	22
[50]	50	50	50	50	40	—	—	—	0	10	—
30	20	40	60	50	50	50	30	20	30	60	30
[30]	40	40	30	30	40	50	60	40	40	30	30
80	70	40	40	40	30	40	30	20	20	40	—
80	70	40	50	40	70	80	80	60	50	30	56
40	40	40	40	60	60	50	50	40	30	30	33
70	80	70	80	70	70	70	70	30	40	30	35
90	70	50	30	30	30	20	30	10	0	-10	32
110	110	120	120	90	90	80	70	60	60	60	65
-10	-20	-10	0	0	10	-20	-20	0	0	20	-2
130	120	100	50	40	30	30	20	20	20	20	50
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
57	56	54	51	50	50	46	43	33	30	31	
29	29	28	28	28	28	27	27	27	28	28	

November

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	—	—	—	—	—	—	—	—	—	—	—	—	—
2.	—	—	—	—	—	—	—	—	—	—	—	—	—
3.	—	—	—	—	—	—	—	—	—	—	—	—	—
4.	—	—	—	—	—	—	—	—	—	—	—	—	—
5.	—	—	—	—	—	—	—	—	—	—	—	—	—
6.	—	—	—	—	—	—	—	—	—	-60	-40	-20	-10
7.	0	-50	-20	0	30	40	30	-20	-50	-30	[-30]	-20	-30
8.	140	110	60	110	150	220	170	60	40	-10	[30]	30	60
9.	10	0	-10	-10	0	0	0	0	0	0	[30]	30	30
10.	10	10	-10	-10	10	-10	0	-10	-40	-20	[30]	60	70
11.	20	10	0	0	0	0	20	30	30	40	100	[90]	80
12.	10	0	-10	0	0	10	0	—	—	20	20	30	60
13.	40	30	30	30	50	30	40	50	40	30	[40]	50	70
14.	-30	-30	-50	-50	-20	-30	-40	-50	-50	-40	[-50]	-50	-30
15.	-10	-10	0	0	0	-10	20	20	10	20	30	[30]	10
16.	0	0	10	10	10	20	10	30	20	30	[-10]	-20	-10
17.	-20	-50	-60	-10	-20	+S	-40	30	-50	20	0	10	30
18.	-S	-S	-S	-30	-S	-130	-100	-30	20	20	60	[60]	60
19.	30	20	-10	0	10	-10	0	20	—	30	40	30	30
20.	50	-S	-S	-S	-S	-S	-S	-S	-60	80	[30]	60	30
21.	60	70	80	70	40	50	30	60	90	100	[80]	70	70
22.	70	40	30	30	30	30	30	50	50	70	[70]	70	80
23.	-S	+S	-S	-20	10	30	40	50	30	+S	[60]	+S	70
24.	30	50	70	70	—	—	—	70	90	-S	[-S]	50	60
25.	40	40	30	30	30	40	70	100	70	60	[90]	100	100
26.	50	60	60	40	50	60	50	50	—	[70]	70	100	100
27.	-10	-10	-10	-10	-10	-10	0	0	20	60	[60]	70	100
28.	60	40	20	30	20	10	10	30	60	70	[80]	90	80
29.	—	—	—	—	—	—	—	—	—	—	—	—	—
30.	—	—	—	—	—	—	—	—	—	—	—	—	—
Means	28	17	11	13	21	18	17	27	17	27	36	42	48
Number of days	20	19	19	21	19	19	20	20	19	21	22	22	23

13	14	15	16	17	18	19	20	21	22	23	Daily means
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
0	10	40	30	-40	-60	-50	-50	-10	-20	30	—
10	10	10	20	10	-10	10	20	20	40	110	4
60	30	20	60	100	80	80	100	100	30	20	77
30	30	20	10	10	0	0	0	0	20	30	10
70	40	20	10	-20	-20	-20	10	20	30	30	11
70	60	40	30	40	40	30	30	20	10	0	33
80	70	60	70	100	80	60	60	50	30	30	—
60	60	50	20	-10	-20	-10	-20	-30	-30	-20	24
-30	-50	-30	-20	-50	-40	-40	10	10	-40	-50	-35
-20	10	20	-20	70	30	0	-10	-10	10	0	8
-20	-10	-30	-40	-50	-40	-50	-60	-50	-30	-30	-13
30	30	-S	-S	±S	±S	±S	±S	±S	-S	-S	—
40	30	60	70	70	90	70	40	30	30	30	—
30	20	30	30	60	0	-10	30	40	30	70	23
30	100	80	40	-80	20	60	80	100	60	80	—
70	60	100	110	100	70	±S	90	120	60	40	74
100	90	60	30	30	-S	-S	+S	+S	±S	-30	—
70	80	80	100	100	90	70	60	90	60	40	—
70	70	80	100	90	100	100	70	50	40	40	—
90	90	90	100	110	110	100	70	80	80	60	74
100	70	40	50	20	0	0	-10	-10	-10	-10	44
70	70	70	70	70	80	80	70	70	60	60	43
70	40	60	20	10	-10	0	0	0	0	-10	33
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
47	44	44	40	34	28	24	28	33	22	24	
23	23	22	22	22	21	20	21	21	21	22	

December

Hour GMT Day	0	1	2	3	4	5	6	7	8	9	10	11	12
1.	—	—	—	—	—	—	—	—	—	—	—	—	—
2.	—	—	—	—	—	—	—	—	—	—	—	—	—
3.	—	—	—	—	—	—	—	—	—	—20	[40]	50	30
4.	20	10	0	0	—10	20	30	0	—10	—30	—10	0	[—40]
5.	—20	—20	—10	—10	—10	—10	—20	0	—10	0	20	[—10]	20
6.	100	100	80	60	60	60	—10	—10	—10	20	30	[20]	[30]
7.	30	60	30	50	70	60	70	10	0	20	[40]	40	40
8.	10	—10	0	0	0	—10	—20	—30	—10	—10	[—10]	30	20
9.	—10	—20	10	—20	20	30	20	10	20	30	10	20	20
10.	20	30	40	40	40	50	50	—	—	70	80	70	70
11.	30	40	50	50	60	70	60	60	50	50	[50]	50	60
12.	30	40	60	80	80	70	70	80	90	100	[100]	110	120
13.	40	50	40	50	40	30	30	40	70	[80]	[110]	90	90
14.	70	60	70	60	70	80	70	60	50	60	50	[60]	[20]
15.	—10	—10	—10	0	0	—10	—10	—10	—30	—10	20	[—10]	20
16.	—60	—20	—40	—50	10	—10	—40	—50	—40	—80	[—70]	—60	—30
17.	—20	0	—30	20	120	30	30	—	—	100	100	±S	10
18.	—10	—50	—60	—20	—30	—20	—20	—30	—50	—110	[—90]	—70	—90
19.	—150	—10	—10	—70	80	70	90	90	50	50	40	30	30
20.	50	60	70	90	80	70	60	50	60	[110]	70	80	70
21.	10	—20	—50	—50	—50	—40	—80	—20	—70	—50	[—60]	—60	0
22.	50	50	50	50	—S	50	50	60	70	70	[60]	70	60
23.	10	30	50	40	40	30	30	50	50	50	40	[60]	70
24.	130	130	60	120	100	80	50	50	40	50	80	—	110
25.	50	50	60	80	80	70	110	110	120	[120]	110	110	130
26.	+S	+S	+S	+S	80	[40]	—40	+S	+S	+S	160	+S	+S
27.	—30	—40	0	60	0	—50	—60	—50	—50	—50	[—50]	—30	—40
28.	50	60	60	70	100	80	110	90	80	[80]	70	80	100
29.	70	60	60	50	50	50	50	40	30	50	90	[70]	70
30.	—10	0	20	0	10	20	30	0	60	[60]	70	40	20
31.	—50	—30	—30	—20	—20	—20	—20	—40	—40	—20	—	[30]	30
Means	15	22	21	27	40	32	25	22	21	28	41	33	37
Number of days	27	27	27	27	27	28	28	25	25	28	28	26	28

13	14	15	16	17	18	19	20	21	22	23	Daily means
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
20	0	30	30	20	30	70	60	10	20	20	—
—10	—10	—10	20	20	40	20	—10	—10	0	0	1
30	30	60	70	60	90	60	70	90	40	110	26
40	40	20	20	30	50	60	20	30	20	20	37
60	60	60	70	100	70	70	50	40	20	10	47
30	20	40	—10	—10	—10	20	—10	0	—20	10	1
0	[—20]	—50	20	20	—20	—20	30	20	—10	20	5
70	80	70	80	100	110	60	40	—S	±S	10	—
60	50	40	40	50	50	50	50	40	10	—10	46
110	130	120	120	160	120	120	100	70	70	50	92
90	100	70	80	110	100	130	160	120	110	100	80
0	10	40	60	30	20	10	30	20	0	—10	41
40	40	20	50	50	60	60	70	40	10	—40	14
—20	—50	—50	—50	—40	—20	—50	—20	—20	—10	—60	—39
—10	—40	—50	30	60	10	20	10	40	—70	—50	—
—130	—90	—70	—90	—90	—80	—120	—120	—90	—120	—160	—75
+S	[—S]	—30	50	50	60	50	60	50	50	50	—
90	80	110	50	20	20	—10	30	30	10	10	57
—70	—50	—10	60	60	40	80	70	50	60	70	—8
50	50	50	50	60	80	80	80	60	50	40	58
70	70	100	80	70	80	100	140	110	70	60	63
120	90	80	90	80	100	90	70	70	60	70	84
120	110	110	80	70	80	100	50	70	110	60	90
150	170	+S	+S	150	+S	+S	160	110	30	—50	—
—40	10	20	50	110	110	150	120	70	160	70	18
110	80	100	100	110	90	70	60	80	80	100	84
60	60	60	50	40	20	20	20	10	0	—50	43
—10	—20	—30	—20	—30	—20	—30	—140	—100	—160	—110	—15
—20	40	30	40	20	40	40	40	70	50	40	7
36	37	33	44	51	47	46	44	39	23	13	
28	28	28	28	29	28	28	29	28	28	29	

