

I. EARTH CURRENTS

In the present report of the Observatory, six kinds of tables are published in the section earth currents.

The coordinates of the Observatory are:

$$\begin{aligned} &= 47^{\circ}38' & &= 16^{\circ}43' \\ \varphi &= 47,2^{\circ} & \Lambda &= 98,3^{\circ} \end{aligned}$$

All times are given in this part in CET (i. e. GMT + 1h), nearly (—7 min) corresponding to LT.

The tables published are the following:

I. The activity indices T of the general activity for each three hour interval of the local day, as well as the character figures of single frequency bands for whole days K_1 — K_3 .

The T-scale is linear; its scale corresponds to 1,8 mV/km. The monthly mean T-values are separately given for the North-South and East-West components. The scales for K_1 — K_3 are as follows

Frequency band	limits between K-values								
	0—1	1—2	2—3	3—4	4—5	5—6	6—7	7—8	8—9
1. Period 0— 2 min	2	4	7	13	18	23	29	41	54
2. Period 2— 6 min	9	13	18	23	29	34	41	56	90
3. Period 6—12 min	16	22	25	32	38	45	56	83	120
4. Period 12—24 min	34	43	54	70	85	101	124	151	202
5. Period 24—60 min	29	43	67	88	110	131	191	234	339

All these values are given in the table in units of 10^{-5} V/km.

Values in brackets mean extrapolated ones from incomplete material, where the lacking hours have been substituted by the average of recorded hours.

II. Monthly and yearly means, and means for disturbed and quiet days of the amplitudes of the former frequency bands and of the earth current field intensity. D and Q days are the same as in section Geomagnetism. The rows 1—5 contain the average amplitudes of the five bands in 10^{-5} V/km. Row 6 contains the hourly means of the earth current field intensity corrected for long period variations (equally in 10^{-5} V/km).

III. Results of harmonical analysis from monthly means of the earth current field intensity.

IV. Time of special events (common table from magnetic and earth current records).

V. Average amplitudes in 12 pulsation bands. Instead of the graphical representation of world-day averages in previous years, numerical data are presented on the average amplitudes of pulsations for (nearly complete) months. Averages are derived from manually processed earth-current records (6 mm/min) for three-hour intervals of the day. Such averages (expressed in μ V/km) are published for each month and for the full year. As the bands where amplitudes are determined have different bandwidths, amplitudes are comparable in different bands only after a correction for bandwidth. Data for the same band are, however, directly comparable. Initial data are estimated amplitudes in half-hour intervals.

VI. Micropulsation indices for the year 1976. The indices have been determined from the occurrence frequency of different period micropulsations, striving at a possibly uniform distribution of days in each of the five possible indices (1—5).

The determination of these indices can be shortly explained as follows: The days are arranged according to the occurrence frequency of each band. Index 1 is attributed to the days with lowest fifth of occurrence frequencies (0 to 20 per cent), index 2 to days with occurrence frequencies in the second lowest fifth (20 to 40 per cent) etc., index 5 to days with highest occurrence frequencies (80 to 100 per cent). It must be reminded that mainly in the lowest and highest bands the uniform distribution could not be achieved due to insufficient occurrence of these bands on the records.

The bands are the following:

P1	0	to	5 sec
P2	5	to	10 sec
P3	10	to	15 sec
P4	15	to	20 sec
P5	20	to	25 sec
P6	25	to	30 sec
P7	30	to	40 sec
P8	40	to	60 sec
P9	60	to	90 sec
P10	90	to	120 sec
P11	2	to	5 min
P12	5	to	10 min

For a detailed description of the method of determination of these indices, see:

L. HOLLÓ, M. TÁTRALLYAY and J. VERŐ: Experimental results with the characterization of geomagnetic micropulsations (*Acta Geodaetica, Geophysica et Montanistica Hungarica*, 7/1972/155).

Mrs. J. CZUCZOR, L. HOLLÓ, M. TÁTRALLYAY and J. VERŐ took part in the processing and compilation of the data.

Records were taken in the Observatory with three instruments of the types GMG T9/1956 and GMG T14 1961, with small modifications in order to meet the demands of the use in the observatory. A general description of the processing and compilation is found in the report of the Observatory from 1966, in German by A. ÁDÁM, J. VERŐ, A. WALLNER: *Tellurische und erdmagnetische Messungen im Observatorium bei Nagycenk. Observatoriumsberichte des Geophysikalischen Forschungslaboratoriums der Ungarischen Akademie der Wissenschaften vom Jahre 1966, Sopron, 1967.*

1. Activity indices T and K_1-K_5
January

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	11012101	7	4	1	4	1	0
2.	00011102	5	3	0	4	0	0
3.	03134256	24	6	2	4	3	2
4.	21223144	19	6	3	5	2	2
5.	21111121	10	4	0	4	2	2
6.	11112255	18	5	1	5	2	4
7.	42112321	16	4	0	4	2	2
8.	10000012	4	4	1	4	0	0
9.	00000000	0	3	0	4	0	0
10.	01254799	37	5	2	5	3	8
11.	95111234	26	4	0	4	3	6
12.	71122233	21	4	1	4	2	2
13.	32121112	13	5	2	4	1	2
14.	11222222	14	5	1	4	1	2
15.	10101322	10	5	1	4	1	0
16.	12011146	16	5	1	4	1	3
17.	12212134	16	5	2	4	3	2
18.	32211113	14	6	2	4	1	2
19.	01112322	12	5	1	4	2	1
20.	32211153	18	6	3	4	2	2
21.	22343734	28	7	3	4	3	4
22.	36225465	33	6	3	5	3	6
23.	44455652	35	7	3	5	4	6
24.	21354353	26	6	3	4	3	4
25.	22212431	17	5	2	4	2	3
26.	01121101	7	5	1	4	0	1
27.	00121112	8	3	1	4	2	1
28.	10011111	6	3	1	4	1	1
29.	11111001	6	2	0	5	1	0
30.	00101127	12	3	1	4	2	2
31.	32224539	30	5	1	4	3	5
Monthly averages:			T (N)	1,952			
			T (E)	1,516			
			K_1	4,709			
			K_2	1,38			
			K_3	4,19			
			K_4	1,806			
			K_5	2,41			

February

Day	T	Sum	K ₁	K ₂	K ₃ [*]	K ₄	K ₅
1.	33334285	31	7	4	5	2	4
2.	42234473	29	7	3	5	3	5
3.	22223223	18	6	3	4	2	2
4.	21121237	19	6	2	4	1	3
5.	10122322	13	6	2	4	1	2
6.	32210112	12	5	1	4	0	2
7.	10044553	22	4	1	5	1	4
8.	43245955	37	6	3	5	3	6
9.	43334337	30	6	3	5	4	3
10.	63334395	36	6	3	4	3	6
11.	21113324	17	6	2	4	1	3
12.	22343345	26	6	2	4	3	4
13.	82242435	30	6	2	5	2	6
14.	22435412	23	7	3	5	2	2
15.	11122241	14	6	2	4	1	2
16.	10011121	7	5	0	4	0	0
17.	11114245	19	5	2	5	2	2
18.	54556424	35	7	3	6	3	4
19.	23444845	34	7	3	5	3	4
20.	33345343	28	7	3	5	3	3
21.	23234152	22	7	2	5	3	3
22.	42334422	24	7	3	5	3	2
23.	21111100	7	4	1	4	0	0
24.	00111110	5	4	2	4	0	0
25.	01011020	5	4	1	4	0	1
26.	01032213	12	4	2	4	1	2
27.	22126969	37	6	2	5	3	7
28.	43323457	31	5	2	5	3	4
29.	65532255	33	5	2	5	4	5
Monthly averages:			T (N)	2,663			
			T (E)	2,211			
			K ₁	5,75			
			K ₂	2,206			
			K ₃	4,58			
			K ₄	1,96			
			K ₅	3,13			

March

Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	52213314	21	6	2	4	1	3
2.	33355499	41	6	2	5	4	7
3.	32234298	33	6	3	5	3	6
4.	33223121	17	5	3	5	2	2
5.	11222217	18	5	2	4	1	2
6.	23343499	37	6	3	5	4	6
7.	33444633	30	5	2	5	2	6
8.	44555255	35	5	2	5	3	6
9.	44335796	41	7	4	5	3	6
10.	45445658	41	6	3	5	3	6
11.	43535263	31	6	2	5	2	2
12.	33323334	24	6	3	5	2	2
13.	31121214	15	5	2	4	1	1
14.	33111111	12	4	1	4	2	2
15.	11212427	20	5	2	6	3	2
16.	32334592	31	8	4	5	4	5
17.	42453345	30	7	4	5	3	3
18.	62232162	24	7	3	4	2	3
19.	22452121	19	6	3	6	3	2
20.	13132411	16	5	2	4	2	1
21.	01224110	11	5	1	4	0	0
22.	00111110	5	4	1	4	0	0
23.	00021132	9	4	2	5	0	1
24.	11001010	4	4	2	4	0	0
25.	10011112	7	3	0	4	1	1
26.	39999999	66	8	6	7	8	7
27.	54544387	40	6	2	6	4	6
28.	32213231	17	5	1	4	3	3
29.	32421103	16	5	1	4	1	2
30.	10126326	21	6	2	4	2	3
31.	30113140	13	4	2	4	1	2
Monthly averages:			T (N)	2,875			
			T (E)	2,363			
			K ₁	5,48			
			K ₂	2,32			
			K ₃	4,709			
			K ₄	2,25			
			K ₅	3,16			

April							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	49999422	48	6	4	7	6	8
2.	21110137	16	3	0	4	2	2
3.	32421488	32	4	1	5	5	4
4.	83457724	40	6	3	5	5	6
5.	33335373	30	5	2	5	3	6
6.	53344542	30	6	2	5	2	6
7.	42238435	31	7	3	4	3	6
8.	72333223	25	6	3	4	2	3
9.	15223244	23	7	2	5	1	2
10.	22124211	15	4	1	4	3	2
11.	33322325	23	7	3	5	3	2
12.	12232112	14	6	2	4	1	1
13.	32213234	20	7	3	5	2	3
14.	12243443	23	6	2	4	2	2
15.	10111111	7	5	2	4	1	0
16.	12211113	12	6	3	5	1	1
17.	11311111	10	3	1	5	2	1
18.	00011010	3	3	1	4	1	0
19.	11111111	8	4	2	4	1	0
20.	00011000	2	2	0	4	0	0
21.	00032112	9	3	0	4	1	1
22.	03543332	23	6	3	5	3	2
23.	31102111	10	4	0	4	2	2
24.	11223142	16	4	1	5	2	2
25.	12211113	12	5	1	4	6	1
26.	10011101	5	4	1	4	0	0
27.	22112123	14	5	2	4	2	1
28.	22111223	14	7	2	5	0	2
29.	02113235	17	5	2	5	2	3
30.	31121110	10	5	2	4	1	2
Monthly averages:			T (N)	2,104			
			T (E)	1,792			
			K ₁	5,03			
			K ₂	1,80			
			K ₃	4,26			
			K ₄	1,96			
			K ₅	2,36			

May							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	21222222	15	6	2	4	1	1
2.	12237499	37	8	4	6	8	4
3.	99699521	50	8	8	8	7	2
4.	11223463	22	3	1	5	2	5
5.	42334132	22	6	2	5	2	1
6.	12121112	11	4	1	4	1	0
7.	31111111	10	4	1	4	1	1
8.	32113312	16	5	1	4	1	2
9.	21111100	7	4	2	4	0	0
10.	01111311	9	3	1	4	0	0
11.	12112133	14	4	1	5	3	2
12.	41121111	12	4	2	4	3	1
13.	11212211	11	4	2	4	1	1
14.	11101100	5	3	1	4	0	0
15.	11001113	8	4	1	4	2	1
16.	22112101	10	3	0	4	2	1
17.	01111011	6	4	1	4	0	0
18.	00001110	3	3	0	4	1	0
19.	00010244	11	4	2	5	2	3
20.	34322263	25	6	3	5	5	4
21.	22112233	16	4	2	5	1	2
22.	13233243	21	6	2	5	2	2
23.	12124331	17	3	0	5	3	2
24.	11311011	9	4	1	4	1	1
25.	32321331	18	5	1	5	3	2
26.	12211211	11	4	2	4	1	1
27.	12211121	11	4	2	4	0	1
28.	22322223	18	5	1	4	2	2
29.	32221246	22	5	2	5	2	3
30.	53123222	20	4	1	4	1	3
31.	11212112	11	5	1	4	1	2
Monthly averages:			T (N)	1,782			
			T (E)	1,566			
			K ₁	4,48			
			K ₂	1,64			
			K ₃	4,51			
			K ₄	1,90			
			K ₅	1,67			

June							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	11111112	9	5	2	4	1	2
2.	22220120	11	6	2	5	1	1
3.	11111145	15	4	2	4	2	3
4.	26432222	23	6	3	5	3	3
5.	22335522	24	7	3	5	3	4
6.	22332312	18	6	3	5	2	2
7.	22235413	22	6	2	5	2	3
8.	33232212	18	5	2	4	2	2
9.	11111000	5	4	1	4	0	0
10.	01112112	9	3	1	4	1	1
11.	45332433	27	5	1	5	3	6
12.	11132310	12	3	0	4	2	2
13.	11210002	7	3	0	4	1	0
14.	02100001	4	5	2	4	0	0
15.	20110012	7	3	2	4	0	0
16.	12111004	10	4	2	4	1	1
17.	21242323	19	5	2	4	3	3
18.	34644322	28	6	3	5	3	3
19.	11111110	7	3	1	4	0	0
20.	11211111	9	4	1	4	0	1
21.	00011010	3	3	0	4	0	0
22.	01101110	5	3	0	4	0	0
23.	11111201	8	3	0	4	0	0
24.	11111973	24	3	0	7	3	2
25.	42313323	21	7	2	5	3	3
26.	12211144	16	7	2	5	1	2
27.	12122211	12	4	0	5	1	3
28.	21111111	9	5	0	4	0	1
29.	11111331	12	3	1	4	0	1
30.	13379234	32	5	3	6	3	4
Monthly averages:			T (N)	1,452			
			T (E)	1,492			
			K ₁	4,53			
			K ₂	1,43			
			K ₃	4,50			
			K ₄	1,36			
			K ₅	1,76			

July							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	35455321	28	8	1	6	3	3
2.	32222211	15	5	0	4	1	2
3.	12123413	17	5	0	4	2	2
4.	22233234	21	6	2	4	1	3
5.	12211211	11	6	2	4	2	2
6.	21211111	10	5	2	4	0	1
7.	13132212	15	4	0	4	1	2
8.	21213524	20	4	1	4	1	4
9.	53313232	22	5	2	4	2	2
10.	11121111	9	3	0	4	1	1
11.	12111111	9	4	1	5	0	1
12.	22111102	10	4	1	4	0	1
13.	12112211	11	3	0	4	1	0
14.	11112100	7	2	0	4	0	1
15.	21221664	24	4	1	5	2	2
16.	43223432	23	6	1	4	2	2
17.	12211112	11	5	2	4	1	0
18.	12211021	16	5	1	4	1	1
19.	31111210	10	4	1	4	0	0
20.	31111211	11	4	1	4	0	0
21.	10001210	5	3	0	4	0	0
22.	11211001	7	3	0	4	1	1
23.	11112111	9	3	0	4	0	0
24.	01011212	8	3	0	4	0	1
25.	32311213	16	3	0	4	1	2
26.	21001011	6	4	0	4	1	0
27.	11122124	14	4	0	4	2	2
28.	42333442	25	5	2	5	3	5
29.	22324433	23	6	3	5	3	3
30.	22456222	25	7	2	5	3	2
31.	11313211	13	5	1	4	3	0
Monthly averages:			T (N)	1,548			
			T (E)	1,443			
			K ₁	4,45			
			K ₂	0,87			
			K ₃	4,22			
			K ₄	1,22			
			K ₅	1,48			

August

Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	12211144	16	6	2	4	0	3
2.	22331101	13	6	2	4	1	2
3.	21211412	14	4	1	4	1	1
4.	10111112	8	4	0	4	0	1
5.	21112341	15	6	3	5	1	2
6.	12111121	10	6	1	4	0	1
7.	01112103	9	4	0	4	0	1
8.	21100120	7	6	1	4	0	0
9.	11243122	16	6	1	4	0	2
10.	22112111	11	4	1	4	0	2
11.	11111010	6	3	0	4	0	1
12.	01010111	5	3	0	3	0	0
13.	00002000	2	2	0	4	0	1
14.	01022101	7	2	0	4	0	0
15.	00000001	1	2	0	3	0	0
16.	01012312	10	4	0	4	1	2
17.	31010111	8	5	1	4	0	0
18.	01112211	9	4	2	4	0	0
19.	11322311	14	5	1	4	2	0
20.	21112241	14	5	1	4	0	1
21.	11122122	12	4	0	4	1	0
22.	22111111	10	6	1	4	0	1
23.	21334629	30	5	1	5	2	5
24.	93547642	40	7	2	4	3	5
25.	13323553	25	6	3	4	1	6
26.	34433334	27	6	2	5	2	4
27.	22131252	18	5	1	4	1	2
28.	11213540	17	5	1	4	1	2
29.	11121113	11	5	2	4	0	1
30.	10011112	7	6	1	4	0	1
31.	00112111	7	3	0	4	0	0

Monthly averages:

T (N) 1,460
 T (E) 1,290
 K₁ 4,67
 K₂ 1,00
 K₃ 4,03
 K₄ 0,54
 K₅ 1,51

September							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	21221231	14	5	1	4	2	1
2.	21454323	24	5	4	4	2	3
3.	11122242	15	6	1	4	3	2
4.	12112405	16	6	2	4	2	2
5.	42222111	15	6	2	4	1	1
6.	22111121	11	5	2	4	1	2
7.	31122113	14	6	2	4	1	1
8.	21012130	10	5	0	4	1	2
9.	12012100	7	3	0	4	0	0
10.	10021113	9	3	0	4	1	1
11.	11111000	5	5	2	4	1	0
12.	22111122	12	4	0	4	0	2
13.	11120013	9	5	1	4	0	0
14.	11123512	16	4	1	4	2	1
15.	12322112	14	6	2	4	1	1
16.	11112221	11	5	2	4	1	0
17.	12122124	15	3	1	4	1	2
18.	35564311	28	5	2	5	3	2
19.	10233444	21	6	2	4	2	4
20.	86458746	48	7	4	5	5	6
21.	32333734	28	6	1	5	3	4
22.	52544433	30	7	2	5	2	3
23.	20134113	15	4	0	4	1	2
24.	21122110	10	6	2	3	0	1
25.	52132593	30	5	0	5	3	3
26.	71333132	23	7	1	4	1	3
27.	33222222	18	6	1	4	2	1
28.	11111102	8	4	0	4	1	1
29.	01154234	20	5	1	5	2	3
30.	11013226	16	7	1	4	1	4
Monthly averages:			T (N)	2,025			
			T (E)	1,638			
			K ₁	5,23			
			K ₂	1,33			
			K ₃	4,16			
			K ₄	1,53			
			K ₅	1,93			

October							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	11233214	17	7	2	5	2	3
2.	34434412	25	7	2	5	3	4
3.	21121211	11	4	1	4	2	2
4.	10043012	11	4	1	4	2	2
5.	43230111	15	3	0	4	1	2
6.	11121004	10	3	0	4	1	1
7.	21113140	13	6	1	4	0	2
8.	00212112	9	5	1	4	0	1
9.	11211121	10	4	1	4	0	1
10.	11111232	12	2	1	5	0	2
11.	31211112	12	4	0	4	0	3
12.	22113356	23	4	0	5	2	3
13.	22122112	13	6	1	4	0	1
14.	10111123	10	5	0	4	1	2
15.	22359975	42	6	3	5	3	7
16.	66464223	33	7	2	5	3	5
17.	22546342	28	6	0	4	3	4
18.	45222334	25	4	0	4	1	4
19.	00112511	11	3	0	4	0	2
20.	41011113	12	4	0	4	0	2
21.	11122121	11	4	0	4	0	2
22.	31111000	7	3	1	4	0	1
23.	12211112	11	4	1	4	1	1
24.	10111115	11	3	0	4	1	2
25.	21021002	8	5	1	4	0	0
26.	10111013	8	4	1	4	0	0
27.	21111133	13	5	1	4	1	1
28.	30111101	8	3	0	4	0	1
29.	01101010	4	4	1	4	0	0
30.	00143244	18	4	1	4	3	3
31.	43566547	40	6	2	4	3	7
Monthly averages:			T (N)	1,810			
			T (E)	1,431			
			K ₁	4,483			
			K ₂	0,709			
			K ₃	4,193			
			K ₄	1,064			
			K ₅	2,290			

November							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	32131112	14	6	2	5	1	2
2.	11011211	8	3	0	4	0	1
3.	21110103	9	4	0	4	0	2
4.	11111003	8	5	1	4	0	1
5.	00011100	3	3	0	4	0	0
6.	00010000	1	3	0	4	0	0
7.	00100001	2	3	0	4	0	0
8.	01000113	6	3	1	4	0	1
9.	22111102	10	4	0	4	1	1
10.	11121226	16	4	1	4	1	3
11.	33243492	30	4	0	4	2	3
12.	63443566	37	7	3	5	3	4
13.	42437693	38	6	2	5	3	6
14.	22224563	26	6	2	4	3	3
15.	22112312	14	3	0	4	1	2
16.	00011100	3	4	0	4	0	0
17.	23121011	11	4	0	4	1	1
18.	21111012	9	4	1	4	1	0
19.	12111113	11	4	0	4	2	1
20.	12132023	14	6	2	4	1	2
21.	01111012	7	4	1	4	1	0
22.	00111111	6	4	0	4	0	0
23.	01101011	5	3	0	4	0	0
24.	00010000	1	2	0	4	0	0
25.	02111221	10	2	0	4	1	1
26.	10101146	14	2	0	4	1	2
27.	13100003	8	2	0	4	0	2
28.	00000010	1	2	0	4	0	1
29.	00110130	6	2	0	4	0	0
30.	22112322	15	4	0	5	1	1
Monthly averages:			T (N)	1,358			
			T (E)	1,004			
			K ₁	3,566			
			K ₂	0,533			
			K ₃	4,133			
			K ₄	0,766			
			K ₅	1,333			

December							
Day	T	Sum	K ₁	K ₂	K ₃	K ₄	K ₅
1.	10112113	10	4	0	4	0	1
2.	11011101	6	4	0	4	0	0
3.	00011111	5	3	0	4	0	0
4.	01333511	17	4	2	4	1	3
5.	21212110	10	7	2	5	1	2
6.	00000111	3	3	0	4	0	0
7.	12113514	18	5	1	4	2	1
8.	45227111	23	3	1	5	3	6
9.	00212334	15	4	0	4	2	3
10.	11122814	20	6	1	4	2	4
11.	32112112	13	5	1	4	1	3
12.	42222361	22	5	2	5	2	5
13.	11112111	9	4	0	4	0	1
14.	11001001	4	4	1	4	0	0
15.	00110000	2	4	0	4	0	1
16.	00002321	8	3	1	4	1	2
17.	11011133	11	5	0	4	2	2
18.	37632215	29	6	2	5	2	4
19.	12112111	10	5	1	4	0	1
20.	11011221	9	7	1	4	0	1
21.	01010211	6	4	0	4	1	0
22.	01111113	9	2	0	4	1	1
23.	12110001	6	5	0	4	1	1
24.	10012031	8	3	0	4	1	1
25.	02113133	14	3	0	4	1	2
26.	11010001	4	4	1	4	0	0
27.	20010242	11	4	1	4	1	2
28.	11010002	5	4	0	4	0	0
29.	89777422	46	5	2	6	4	7
30.	32221256	23	3	0	4	2	5
31.	64211172	24	5	0	4	1	3
Monthly averages:			T (N)	1,448			
			T (E)	1,165			
			K ₁	4,290			
			K ₂	0,645			
			K ₃	4,193			
			K ₄	1,032			
			K ₅	2,000			

II. *Average amplitudes for different periods*

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
January North												
1.	8	10	7	10	11	12	13	20	23	17	19	20
2.	9	5	4	8	5	9	8	15	19	15	14	13
3.	37	34	35	35	36	35	34	35	34	36	36	36
4.	53	45	43	45	46	45	36	39	38	44	45	64
5.	50	76	56	65	38	41	48	33	18	33	23	16
6.	-23	-23	-18	-35	-10	-13	-16	-25	+18	-2	-7	-30
January East												
1.	8	8	8	8	14	13	15	19	23	22	29	34
2.	6	8	5	3	6	7	9	12	13	16	16	19
3.	30	35	35	35	33	33	33	34	34	35	34	35
4.	37	31	36	35	35	27	33	33	45	31	32	35
5.	59	61	35	46	28	37	35	28	20	25	26	26
6.	-3	-1	+13	-9	-13	-17	-16	-18	+2	+35	+22	+7
February North												
1.	9	12	14	11	17	16	19	24	27	21	20	21
2.	7	10	11	7	12	10	15	19	24	20	15	21
3.	35	36	33	33	35	36	38	39	41	35	35	39
4.	42	43	58	44	44	50	48	42	48	54	47	53
5.	72	82	69	78	53	39	49	44	17	49	68	57
6.	-22	-10	-6	-27	-6	-12	-17	+3	+24	+19	-25	-27
February East												
1.	10	9	8	11	13	21	25	30	35	32	32	30
2.	7	4	4	4	6	7	11	15	14	19	17	19
3.	35	32	34	36	33	42	36	34	37	35	34	39
4.	34	45	40	32	39	33	42	39	33	46	40	33
5.	73	42	53	45	55	42	31	48	38	33	44	47
6.	+14	+18	+7	+12	-3	-15	-20	-27	-2	+16	+27	+40

and hourly means of earth current elements

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
20	21	14	14	10	16	11	10	14	11	9	10	13,9
15	17	18	12	9	12	8	8	10	8	6	9	10,7
37	38	36	35	35	38	34	37	36	34	38	34	35,6
41	53	37	46	45	36	34	47	58	53	58	55	45,3
39	39	82	69	78	70	92	64	131	172	118	84	63,9
-37	-6	+19	+22	+30	+16	+6	+15	+60	+60	-2	+1	
Component												
36	30	28	28	19	18	14	12	16	14	12	12	18,3
17	21	12	15	11	6	9	7	12	10	9	9	10,8
33	33	31	31	33	33	35	31	35	33	34	35	33,6
31	27	33	32	33	31	38	49	40	63	43	45	36,6
33	57	57	72	73	82	59	55	136	92	109	87	55,8
+1	+5	-5	+11	+28	+5	-11	-15	-10	-5	-19	+12	
Component												
21	21	21	19	18	17	21	17	15	13	18	12	17,7
21	17	19	17	14	14	19	15	15	14	15	9	15,0
40	40	39	36	39	36	37	35	35	39	39	37	36,9
51	63	58	45	32	40	33	42	55	50	33	64	47,5
80	83	56	64	90	86	125	137	117	144	167	107	80,5
-36	-25	-6	+24	+9	+18	+30	+43	-13	-10	+50	+22	
Component												
37	37	37	37	34	25	24	21	17	19	22	14	24,2
22	22	22	18	12	7	10	11	11	10	17	7	12,3
41	36	34	33	32	35	36	32	37	37	39	32	35,5
45	51	33	37	32	32	49	58	55	47	26	54	40,6
41	50	63	86	81	89	117	118	112	113	180	115	71,5
+12	-5	-3	-1	0	-9	+4	-13	-7	-21	-41	+14	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
March North												
1.	11	10	8	12	17	17	22	24	26	26	23	21
2.	13	10	7	12	16	15	21	22	24	20	23	19
3.	35	36	37	37	37	37	35	39	46	40	43	39
4.	48	42	45	53	45	64	62	53	52	59	57	64
5.	93	100	83	68	71	69	65	37	53	35	45	64
6.	+5	+33	+1	+12	-12	-13	+2	+25	+7	-11	-43	-75
March East												
1.	12	11	6	9	10	19	27	29	33	41	37	32
2.	8	6	3	7	8	10	14	16	26	24	26	21
3.	34	35	37	35	36	34	38	38	41	40	42	42
4.	35	46	46	51	44	39	37	31	46	49	34	52
5.	87	63	56	37	42	46	36	45	41	32	45	45
6.	+24	+13	+13	+28	+19	+8	-14	+15	+37	+15	+31	+7
April North												
1.	9	11	11	15	19	19	23	24	19	22	19	11
2.	8	11	10	13	13	18	25	23	19	20	13	13
3.	34	38	36	37	37	39	40	41	39	41	39	38
4.	40	42	38	40	36	55	52	57	59	42	51	71
5.	110	77	77	73	61	42	39	62	37	44	39	49
6.	+5	+2	0	-4	-5	+21	+23	+64	+16	-41	-109	-148
April East												
1.	7	7	8	13	17	19	25	30	28	28	31	31
2.	7	6	5	7	11	8	16	16	17	20	15	20
3.	37	34	34	34	38	35	37	31	32	38	44	35
4.	41	41	45	43	41	32	47	31	38	32	40	46
5.	49	46	50	45	39	62	30	47	28	46	44	35
6.	+14	+10	-8	+8	-8	+2	+16	+31	+66	+53	+15	-19

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
20	20	19	15	15	13	16	15	12	10	11	15	16,6
21	18	20	13	15	14	16	15	13	13	9	11	15,8
39	44	49	35	37	37	38	36	39	37	39	40	38,8
51	53	42	53	60	42	54	42	57	48	56	66	52,8
76	66	84	54	53	70	120	150	168	156	104	175	85,8
-86	-41	+23	+35	+58	+26	+20	+17	-11	+3	+12	+15	

Component												
35	34	35	29	29	24	20	16	14	15	15	16	22,8
22	23	21	17	16	10	8	7	11	13	11	12	14,2
40	38	33	36	35	37	36	35	42	38	37	37	37,3
51	42	71	56	51	53	56	52	73	57	44	49	48,5
44	78	57	52	52	48	120	91	116	133	114	167	68,6
-17	-6	+3	-2	-16	-15	-41	-31	+2	-37	-19	-15	

Component												
16	14	16	15	9	7	11	15	8	11	11	9	14,3
17	13	14	12	6	6	11	14	9	11	11	8	13,3
37	37	39	38	34	35	35	39	38	35	35	35	37,3
64	46	47	52	41	35	38	59	41	59	46	55	48,6
50	64	77	32	46	72	73	85	96	56	109	91	65,0
-121	-61	+17	+63	+52	+63	+46	+39	+11	+24	+38	+2	

Component												
33	31	25	21	19	17	15	13	11	13	14	8	19,3
19	20	16	14	10	10	8	8	9	10	9	5	11,9
37	34	37	35	36	37	37	34	31	34	38	33	35,5
48	43	61	35	43	41	35	48	44	49	50	58	43,0
38	53	33	66	44	65	82	76	88	71	89	66	53,8
-25	-28	-19	-12	-15	-18	-19	-27	-8	+6	-19	+10	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
May North												
1.	10	15	16	19	17	20	21	18	16	16	15	15
2.	12	17	15	24	15	17	17	16	15	21	10	13
3.	44	46	37	43	38	41	35	38	43	42	38	38
4.	49	43	41	34	41	57	48	51	49	46	43	49
5.	65	63	49	48	44	41	46	17	9	17	39	36
6.	+11	+12	-1	-1	+56	+61	+31	+24	-9	-84	-129	-131
May East												
1.	13	12	10	17	13	19	22	21	27	26	24	27
2.	10	12	10	19	8	8	11	13	15	22	16	16
3.	42	38	37	42	37	39	34	31	35	39	42	39
4.	49	38	38	32	35	40	25	31	30	31	48	44
5.	58	42	38	41	41	29	41	27	24	26	20	46
6.	-2	+8	+8	+2	-3	+15	+27	+32	+38	+26	-19	-24
June North												
1.	11	11	13	17	19	22	22	22	19	17	14	14
2.	12	10	10	12	18	17	14	13	13	13	9	11
3.	35	37	38	40	41	40	40	39	39	38	42	33
4.	37	55	29	44	37	57	51	46	28	37	44	47
5.	33	39	56	44	44	32	47	22	29	33	23	49
6.	+14	+21	+13	+14	+51	+57	+55	+27	-6	-53	-109	-134
June East												
1.	10	12	12	16	15	16	19	20	25	28	26	25
2.	8	7	4	8	7	10	13	11	13	19	17	14
3.	36	35	37	39	36	35	35	35	34	36	37	36
4.	34	48	30	28	23	34	19	28	28	34	34	29
5.	36	31	35	40	62	25	32	24	26	26	35	73
6.	-6	+5	-2	-17	-24	0	+33	+57	+59	+45	+23	-6

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
17	13	8	10	9	7	8	11	12	12	13	12	13,8
17	11	7	8	7	7	7	11	14	13	10	13	13,2
44	48	38	37	38	35	34	38	37	38	37	41	39,5
58	57	55	53	48	52	31	30	65	98	48	57	50,1
23	31	39	45	52	34	57	80	60	48	63	61	44,5
-99	-41	+1	+41	+65	+55	+42	+18	+23	+30	+19	+8	

Component												
26	23	23	17	18	13	8	11	16	11	11	10	17,4
21	15	11	16	10	10	6	7	14	11	13	7	12,5
39	39	38	44	37	44	36	37	40	37	41	37	38,5
35	51	57	41	35	47	37	38	36	40	35	41	38,9
33	34	37	40	60	44	62	83	78	73	64	83	46,8
-28	-10	-24	-13	-20	-16	-24	-45	+10	+72	-5	-6	

Component												
11	9	10	7	7	4	7	8	13	11	7	6	12,5
11	7	7	5	4	3	4	7	12	11	8	5	9,8
37	36	37	36	35	33	38	35	36	37	35	37	37,5
41	43	40	41	31	42	51	47	31	46	46	41	42,2
44	50	63	61	58	38	41	62	59	70	63	62	46,8
-104	-65	-34	+31	+38	+28	+25	+16	+16	+38	+31	+26	

Component												
24	23	20	17	17	14	16	12	11	11	10	7	16,9
16	16	13	11	12	13	6	10	10	10	11	5	11,0
36	31	35	36	38	36	38	35	36	37	35	37	35,9
23	38	37	31	46	37	51	47	31	46	46	41	35,1
46	43	58	76	50	62	40	62	59	70	63	62	47,3
-6	-13	-30	-22	-27	-28	-18	-12	-15	-8	+8	+5	

Parameter Hour	0	1	2	3	4	5	6	7	8	9	10	11
July North												
1.	9	14	16	16	15	23	19	19	17	18	13	14
2.	9	6	9	10	10	13	12	12	10	10	9	10
3.	34	35	35	37	37	35	37	38	37	36	37	31
4.	38	34	32	34	28	38	41	49	40	39	45	47
5.	38	80	88	38	32	39	57	26	32	29	23	41
6.	+12	+13	+9	+14	+21	+57	+32	+16	-7	-57	-120	-136
July East												
1.	10	10	16	15	10	12	17	18	25	27	30	28
2.	5	7	6	5	4	6	5	12	9	13	10	12
3.	35	35	36	32	35	34	35	36	35	34	37	37
4.	28	33	35	30	26	25	26	27	30	28	36	34
5.	37	42	31	31	29	35	34	24	31	28	31	34
6.	-6	+1	+6	+3	-13	+1	+42	+69	+73	+42	+10	-15
August North												
1.	8	12	10	16	15	20	17	19	17	12	14	15
2.	9	6	11	9	8	14	14	15	17	9	9	10
3.	34	33	35	36	35	35	36	37	37	35	37	36
4.	29	33	24	23	24	36	41	42	35	33	39	40
5.	75	40	58	42	39	29	38	14	19	23	24	44
6.	+8	+10	+2	-13	+14	+45	+41	+39	-3	-75	-142	-142
August East												
1.	10	10	12	15	17	19	23	25	24	21	28	28
2.	6	6	7	8	6	5	8	12	11	11	15	16
3.	33	33	34	31	34	33	30	33	34	33	32	34
4.	28	20	28	20	17	26	28	28	28	30	29	33
5.	31	37	34	37	31	21	23	23	20	17	28	37
6.	+7	+4	+7	+14	-12	-7	+29	+64	+72	+62	+4	-10

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
13	10	11	7	7	7	5	9	12	9	8	8	12,5
10	3	5	2	2	2	4	5	8	5	8	5	7,6
41	36	33	37	36	37	35	35	34	34	34	36	35,4
38	43	41	38	41	36	36	38	35	34	41	39	38,5
47	42	52	36	28	59	41	30	56	52	41	50	44,0
-117	-75	-27	+38	+65	+79	+37	+29	+36	+28	+33	+18	

Component												
23	21	24	17	19	17	10	6	13	8	9	10	16,5
15	16	10	9	12	8	9	5	7	6	8	5	8,5
37	37	37	38	34	37	38	35	32	36	36	33	35,5
30	46	38	31	33	39	38	35	39	39	41	37	33,5
46	33	60	51	54	63	38	42	61	45	44	53	40,7
-28	-32	-20	-17	-17	-22	+1	-50	-24	+5	-3	-6	

Component												
10	11	10	8	7	6	9	8	8	7	8	8	11,4
8	8	4	3	3	2	5	4	5	4	5	8	7,9
35	38	36	36	36	35	36	34	36	34	34	36	35,5
34	34	36	32	38	31	30	34	32	37	33	35	33,5
42	39	33	50	22	63	54	80	59	27	66	77	44,0
-118	-57	+29	+65	+92	+75	+33	+32	+13	+18	+16	+19	

Component												
24	23	21	19	15	12	13	14	10	7	12	14	17,3
13	13	9	9	9	11	10	9	3	6	6	12	9,2
35	35	35	35	36	35	37	37	35	35	31	33	33,9
30	30	30	25	33	33	28	32	30	34	31	34	28,5
36	27	31	44	27	59	41	74	57	34	81	51	37,6
-30	-32	-21	-17	-10	-25	-29	-44	-20	+3	-16	+6	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
September North												
1.	12	10	10	14	13	16	23	20	20	22	16	16
2.	10	7	7	8	10	8	18	13	16	11	11	9
3.	35	33	35	35	34	32	35	36	37	34	38	35
4.	40	35	44	44	35	40	45	38	50	43	46	50
5.	49	67	46	20	49	29	38	30	26	39	43	47
6.	-23	+5	+24	+12	-13	+5	+20	+8	-2	-62	-133	-135
September East												
1.	13	10	13	13	17	16	22	25	34	33	32	34
2.	5	5	7	4	7	7	7	11	16	18	16	17
3.	31	32	33	34	32	33	31	32	34	28	34	34
4.	20	29	25	17	31	34	31	31	33	31	36	43
5.	68	41	43	43	41	34	44	29	27	44	38	38
6.	-8	+1	+24	+2	+2	-10	+29	+49	+62	+52	+16	-5
October North												
1.	9	9	7	10	10	15	18	21	17	16	17	12
2.	10	8	8	2	3	6	13	17	15	10	12	9
3.	35	36	34	33	35	37	35	38	37	37	37	37
4.	27	37	51	43	37	45	45	39	30	46	41	42
5.	70	63	53	35	58	30	49	39	47	42	59	33
6.	-5	-25	-5	-13	-14	+6	+7	+60	+62	+14	-56	-112
October East												
1.	11	8	7	10	11	12	21	21	29	25	27	26
2.	8	4	6	3	2	7	5	10	8	12	12	10
3.	31	32	34	34	33	36	35	35	31	34	33	35
4.	21	38	34	32	30	35	27	24	28	33	41	35
5.	54	31	33	41	41	30	31	46	45	41	37	28
6.	+22	+13	-5	-5	-7	-3	0	+20	+33	+42	+49	+10

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
13	13	13	10	12	12	10	13	10	11	10	5	13,5
11	11	7	9	4	7	9	7	8	7	12	2	9,4
37	38	38	35	35	36	34	32	36	38	37	34	35,4
50	56	49	45	36	38	30	43	45	34	47	43	42,8
69	30	33	49	59	29	71	55	59	116	74	80	50,3
-88	-14	+37	+89	+83	+51	+15	+49	+21	+38	+4	+8	

Component												
31	31	29	26	26	19	14	16	16	16	13	8	21,1
14	16	15	16	14	9	5	6	10	9	9	5	10,3
35	37	34	36	34	32	33	32	34	33	35	35	33,3
40	37	40	28	35	35	37	28	31	43	41	46	33,4
58	46	35	55	64	38	63	66	92	76	62	63	50,3
-38	-34	-20	-6	-15	-17	-23	-18	-30	-11	-2	+4	

Component												
12	14	10	11	6	7	5	6	8	11	9	9	11,3
9	9	5	5	2	5	5	3	6	11	8	7	7,7
37	36	36	37	34	35	34	34	35	37	36	34	35,7
37	56	38	33	28	26	29	31	41	35	35	43	38,0
50	31	72	55	66	67	94	69	70	127	87	66	59,7
-99	-56	+30	+50	+48	+9	+32	+18	+5	+28	+8	+10	

Component												
27	28	24	21	17	13	9	10	11	15	12	9	16,7
13	16	15	11	5	6	5	3	9	7	10	6	8,0
32	32	35	31	34	34	34	35	33	32	34	35	33,4
37	31	40	30	28	28	30	35	37	30	28	28	31,7
45	64	53	53	52	63	57	61	62	116	120	109	54,7
-28	-20	-3	-14	-15	-14	-10	-19	-13	-15	-10	-6	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
November North												
1.	4	5	5	7	8	8	10	17	17	10	12	10
2.	5	2	3	3	4	6	7	9	11	10	7	7
3.	34	35	32	38	36	35	39	34	35	37	37	35
4.	31	31	29	40	35	35	40	33	41	44	46	43
5.	35	34	71	25	37	44	17	31	13	19	26	25
6.	-20	-14	-18	-14	-21	-2	+2	+31	+34	+9	-36	-65
November East												
1.	5	6	2	6	13	10	13	17	17	17	22	15
2.	4	2	1	1	2	4	8	7	7	10	10	9
3.	30	31	31	32	35	35	34	36	32	34	33	34
4.	25	26	19	27	26	27	29	32	27	32	35	33
5.	29	38	67	38	27	34	22	19	27	20	32	23
6.	-1	+16	+10	-1	-11	-12	-13	+22	+23	+27	+23	+9
December North												
1.	4	7	6	5	6	6	10	12	20	18	17	15
2.	5	5	5	2	3	3	6	10	10	14	14	12
3.	36	35	37	35	37	37	35	35	35	45	37	38
4.	43	36	23	41	40	39	45	36	33	46	41	41
5.	49	55	91	92	55	39	17	46	39	21	26	33
6.	+2	-5	-28	+5	-21	-14	-14	0	+8	0	-18	-43
December East												
1.	6	6	8	8	8	13	20	20	23	22	26	23
2.	5	4	2	4	4	4	8	7	6	12	17	12
3.	34	33	35	36	34	34	32	31	31	40	35	34
4.	30	27	40	34	35	33	31	30	36	33	35	32
5.	64	45	43	64	30	27	31	38	17	17	15	30
6.	+14	+10	+1	+9	-1	-3	-8	-16	-1	+21	+15	-1

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
13	10	11	9	6	9	7	7	7	10	8	7	9,0
10	5	7	7	5	5	4	4	4	10	7	5	6,1
35	36	36	37	36	35	35	37	33	34	34	35	35,4
33	32	26	39	31	29	33	36	31	33	32	39	35,1
22	35	45	40	38	66	71	61	56	61	58	47	40,7
-48	-16	+17	+20	+26	+38	+2	+4	+34	+46	+12	-22	

Component												
18	19	18	16	14	13	11	8	11	15	9	6	12,6
9	6	8	7	8	5	2	4	4	10	6	7	5,9
34	35	35	36	34	34	34	35	35	35	36	35	34,0
24	23	26	31	24	28	46	20	27	31	31	38	28,6
37	36	38	39	38	66	40	86	56	56	50	43	39,2
-7	-6	-5	-5	-5	-22	-25	-19	-4	+1	+1	+4	

Component												
14	11	12	9	9	5	6	6	5	7	4	5	9,2
11	9	9	10	8	8	8	7	7	6	6	6	7,6
37	36	36	35	36	32	34	35	34	35	35	37	36,0
34	41	35	45	34	36	31	37	34	39	39	47	38,2
57	69	41	38	44	102	59	46	67	47	42	58	51,4
-13	+21	+25	+28	+13	+3	-11	+7	+17	+14	+13	+8	

Component												
29	24	26	24	16	12	9	10	12	8	11	10	15,6
11	9	13	13	6	9	3	6	5	6	9	6	7,5
37	34	31	31	34	33	35	33	36	35	37	35	34,2
28	27	30	26	34	34	26	34	39	27	33	36	32,1
39	51	31	44	40	76	63	44	46	60	60	109	45,2
-7	+17	+4	+12	+6	-11	-30	-3	-16	-12	-5	+5	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
Year 1976 North												
1.	9	11	10	13	14	16	18	20	20	18	17	16
2.	9	8	8	9	10	11	14	15	16	14	12	12
3.	36	36	35	37	36	37	37	37	39	38	38	37
4.	40	39	38	41	37	47	46	45	42	44	45	51
5.	62	65	66	52	48	39	42	33	28	32	37	41
6.	-3	+2	-2	-4	+3	+16	+14	+23	+12	-29	-77	-100
Year 1976 East												
1.	10	9	9	12	13	16	21	23	27	27	29	28
2.	6	6	5	6	6	7	9	12	13	16	16	15
3.	34	34	35	35	35	35	34	34	34	35	37	36
4.	32	35	35	32	32	32	31	30	33	34	37	37
5.	54	43	43	42	39	35	33	33	29	30	33	39
6.	+6	+8	+6	+4	-6	-3	+9	+25	+39	+36	+18	-1

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
15	14	13	11	10	9	10	10	10	10	10	9	13,04
14	11	10	8	7	7	8	8	9	10	9	7	10,25
38	39	38	36	36	35	35	36	36	36	36	36	36,7
44	48	42	44	39	37	36	41	42	47	43	49	43,6
50	48	57	50	53	63	75	77	83	90	83	80	56,4
-80	-36	+11	+42	+48	+39	+23	+24	+18	+26	+19	+10	

Component												
28	27	26	23	20	16	14	12	13	13	12	10	18,3
16	16	14	13	10	8	7	7	9	9	10	7	10,1
36	35	35	35	35	35	36	34	35	35	36	35	35,0
37	37	41	34	35	37	39	40	40	42	37	42	35,9
41	48	46	57	53	63	65	71	80	78	87	84	51,1
-17	-14	-11	-7	-9	-16	-19	-25	-11	-2	-11	+2	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
Quiet days North												
1.	5	9	8	9	10	13	14	15	16	14	12	13
2.	4	6	6	7	7	8	10	10	12	9	6	10
3.	34	33	35	36	36	35	35	35	36	36	35	35
4.	34	32	25	28	27	35	36	35	34	33	34	34
5.	27	29	33	30	26	24	20	14	17	12	15	21
6.	+9	+6	+3	0	+3	+20	+19	+24	+11	—38	—84	—102
Quiet days East												
1.	6	6	7	8	8	12	15	15	19	19	21	19
2.	4	4	4	5	4	5	6	6	6	12	13	11
3.	32	31	31	32	33	32	32	33	35	32	32	35
4.	27	27	23	21	23	21	21	24	25	26	27	28
5.	26	20	27	25	23	24	26	21	18	17	20	23
6.	+9	+6	+5	+1	—8	—6	+10	+22	+42	+35	+15	—5
Disturbed days												
1.	11	16	14	22	22	23	25	31	38	32	32	25
2.	16	23	9	32	25	22	22	27	34	38	32	29
3.	52	65	34	61	45	43	40	45	61	52	47	50
4.	68	54	81	86	76	121	90	76	86	95	74	76
5.	112	180	142	94	148	63	104	77	110	74	101	119
6.	+6	—22	—13	—27	—30	—31	—15	+47	+50	+4	—37	—29
Disturbed days												
1.	13	14	7	18	22	25	29	40	45	50	52	50
2.	22	14	4	34	20	20	16	29	32	52	38	29
3.	52	40	40	61	43	50	40	43	50	61	59	58
4.	79	50	56	67	76	74	40	59	68	59	68	70
5.	99	97	122	54	90	92	85	45	70	50	50	76
6.	+33	+1	—17	+1	+36	+10	+3	+52	+46	+45	+22	+12

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
12	12	12	10	7	6	7	8	7	6	7	5	9.9
10	9	7	7	4	5	6	6	7	5	7	6	7.3
36	36	36	35	35	33	34	34	34	34	34	35	34.9
33	30	33	31	28	30	28	31	29	28	28	32	31.2
23	19	17	17	21	21	27	26	28	28	26	30	23.0
-85	-35	-7	+45	+47	+41	+25	+17	+20	+24	+21	+16	
Component												
23	19	20	18	15	11	9	9	9	8	9	8	13.0
10	11	12	10	8	7	6	5	6	5	9	7	7.3
34	34	35	33	33	33	35	32	33	34	35	34	33.1
29	27	27	23	23	29	26	29	27	24	28	26	25.5
24	20	21	25	26	26	29	24	29	35	28	37	24.8
-23	-17	-11	-8	-13	-13	-16	-16	-8	-6	+2	+5	
North Component												
27	25	25	14	14	14	11	14	9	18	14	11	20.3
31	22	27	14	11	18	13	14	9	20	13	9	21.3
58	67	63	40	41	36	40	32	40	41	38	41	47.2
68	68	61	94	76	77	56	41	49	38	65	74	72.9
112	106	194	115	176	112	225	250	329	281	162	292	153.3
-46	-16	+68	+25	+69	+39	+6	-12	-1	-21	-22	+10	
East Component												
45	40	40	34	29	27	23	22	16	23	13	13	28.8
41	36	23	29	11	9	4	9	9	16	5	9	21.3
52	50	36	54	40	59	38	36	38	34	27	38	45.8
63	59	122	86	86	97	113	52	63	41	36	58	68.4
90	131	130	99	131	99	158	157	191	198	272	218	116.8
-30	+6	+11	-5	-39	-3	-59	-29	0	-57	-38	0	

III.

Results of harmonical analysis of the daily variations

	A ₁	q ₁	A ₂	q ₂	A ₃	q ₃	A ₄	q ₄	A ₅	q ₅	A ₆	q ₆
North Component												
January	23	179	15	234	7	173	17	284	6	48	8	34
February	14	159	14	240	13	96	5	254	12	178	8	230
March	22	127	24	304	29	103	12	301	2	112	5	239
April	40	126	52	289	40	126	15	324	5	205	5	262
May	45	117	55	304	30	152	2	332	2	197	9	49
June	50	98	47	294	28	146	4	270	1	19	4	31
July	52	115	54	294	28	129	6	253	2	303	7	35
August	45	128	60	303	43	135	7	338	2	345	3	59
September	43	143	49	312	32	142	24	322	5	285	1	126
October	17	126	37	271	37	120	23	306	8	157	3	207
November	13	164	24	259	18	135	18	306	5	276	9	14
December	13	181	1	307	13	154	11	312	6	158	3	70
Year	29	129	34	291	26	132	11	307	2	189	2	23
Q	33	122	35	293	27	130	8	311	2	245	3	57
D	17	222	15	297	32	108	12	325	5	207	7	135
East Component												
January	8	262	7	90	11	50	8	240	2	36	3	32
February	7	303	13	81	16	6	4	157	6	74	5	136
March	21	356	7	66	8	45	9	292	6	93	7	108
April	21	5	15	198	17	88	9	303	3	141	6	160
May	18	35	14	209	12	158	13	302	10	306	13	12
June	23	352	21	190	13	101	7	9	4	266	3	263
July	28	358	18	218	19	101	8	323	9	266	4	282
August	29	1	15	202	21	95	12	308	6	264	3	104
September	25	1	13	212	18	83	10	296	3	245	6	229
October	17	346	12	167	15	59	4	272	8	87	3	300
November	11	349	11	138	8	72	8	296	3	335	1	146
December	5	329	10	70	4	79	5	263	6	99	2	48
Year	16	356	8	177	11	81	7	298	0	357	1	42
Q	14	4	10	183	12	84	6	301	2	156	0	270
D	30	344	3	155	12	96	5	339	14	115	11	103

IV.

Special phenomena
(magnetic and earth current date)
 SSC-s

Month	Day	CET (GMT+1h)	Amplitude in		Ex	Ey	Hx	Hy	End of Storm
			E(mV, km)	H(gamma)					
03.	26.	3.30	9	16	—	—	—	+	03.27. 01.00
04.	01.	4.00	14,5	55	+	+	+	—	04.01. 22.00
05.	02.	19.30	16	40 (?)	+	+	+	+	05.03. 21.00
06.	24.	17.30	18	40	+	+	+	—	06.25. 02.30
09.	25.	0.45	3,5	18 (si?)	+	+	+	—	09.26. 02.00
12.	04.	7.30	2,5	12	+	+	+	—	12.04. 24.00
	16.	12.00	2	11 (?)	+	+	+	—	12.16. 20.00
	28.	21.30	4,5	12 (b?)	+	+	+	—	12.29. 21.00
	29.	2.00	5,5	18	+	+	+	—	in storm

Bays					Pi-s						
Month	Day	CET (GMT+1h)	Amplitude in		Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
			E(mV/km)	H(gamma)							
01.	03.	21.00	9	55	—	+	+	+	tr		
	04.	18.30	5,5	35	—	+	+	+	tr		
		21.45							4,5	+	+
	07.	17.00	5,5	30	—	+	+	+	tr		
	08.	22.15							tr		
	11.	1.15	23,5	170	—	+	+	+			
	12.	0.30	12,5	65	+	+	+	—	tr		
	16.	20.15	9	42	—	+	+	+	3,5	+	+
		22.45	11	40	+	+	+	—	tr		
	18.	0.30	5,5	15	+	+	+	—	2,5	+	+
		21.00	3,5	25	—	+	+	+	tr		
	20.	2.45							3,5	—	—
		18.45							5,5	—	+
		23.15	6,5	45	—	+	+	+	tr		
	21.	16.00	9	80	—	—	—	+			
		20.45	7	50	+	+	+	—	tr		
	22.	20.45	11,5	60	+	+	+	—	tr		
	23.	14.00	11	55	—	—	—	+			
	24.	21.15	8	22	+	+	+	+			
	25.	15.15	8	35	—	—	—	+	tr		
	27.	22.15							2	+	+
		22.30							3,5	+	+
	28.	0.15	2,5	10	+	+	+	—	2,5	+	+
	30.	21.15	8	60	—	+	+	+	3,5	+	+
	31.	22.00	18	115	+	+	+	—	tr		
02.	01.	19.00	9	62	—	+	+	+			
	04.	20.45	7	35	—	+	+	+	tr		
	06.	0.30							2,5	+	+
	08.	2.00	7	45	+	+	+	—			
		16.00	17	75	+	+	+	—			
	09.	23.30	11,5	35	+	+	+	—	tr		
	10.	19.15	14,5	75	—	—	—	+			
		23.30	9	35	+	+	+	—			
	12.	21.45	11	45	+	+	+	+	tr		
	13.	1.30	7	50	+	+	+	—	tr		

Bays					Pi-s						
Month	Day	CET (GMT+1h)	Amplitude in		Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
			E(mV/km)	H(gamma)							
02.	13.	11.30	5,5	20	+	0	+	—			
		22.15	9	30	+	+	+	—	tr		
	15.	18.45	9	30	—	+	+	+	tr		
		22.00							2	+	+
	18.	22.15	9	35	+	+	+	+	tr		
	20.	18.00	9	35	+	+	+	+	tr		
		22.15	4,5	30	—	+	+	+			
	25.	4.00							2	+	+
	26.	22.30	8	35	+	+	+	—	2,5	+	+
	27.	23.30	11,5	40	+	+	+	—			
	28.	22.15	7	28	+	+	+	+	2,5	+	+
	29.	0.30	8	25	+	+	+	—			
03.	02.	21.00	11,5	85	+	+	+	+	tr		
	03.	18.15	14,5	75	—	—	—	+	tr		
		21.00	10	65	—	+	+	+	tr		
		23.30	11,5	45	+	+	+	—	tr		
	05.	22.30	14,5	85	—	+	+	+	tr		
	06.	20.15	20	70	+	+	+	—	tr		
		22.30	16	85	+	+	+	—	tr		
	08.	18.15	9	30	—	+	+	+			
		23.30	9	35	—	+	+	—			
	09.	16.45	14,5	70	—	+	+	+	tr		
		20.00	19	70	+	+	+	+			
		23.00	11	60	+	+	+	+	tr		
	10.	16.30	10	50	—	+	+	+	tr		
		23.15	16	75	+	+	+	—	tr		
	11.	18.00	8	65	—	—	—	+			
	12.	22.30	4,5	35	+	+	+	—	tr		
	14.	3.00	5,5	35	+	—	—	—			
	16.	19.30	11,5	80	—	+	+	+			
	17.	20.00	9	35	—	+	+	+			
		23.30	9	55	+	+	+	—	tr		
	18.	19.45	8	45	—	+	+	+	tr		
	23.	9.45	3,5	12	—	+	+	+	2	+	+

Bays					Pi-s						
Month	Day	CET (GMT+1h)	Amplitude in		Ex	Ey	Hx	Hy	E(mV.km)	Ex	Ey
			E(mV/km)	H(gamma)							
03.	23.	23.30							4,5	+	+
	24.	0.00							2	+	+
	25.	0.15							2	+	+
	27.	21.00	8	55	+	+	+	—	tr		
	28.	19.00	5,5	30	—	+	+	+	tr		
	30.	13.45	13,5	25	+	+	+	—			
	31.	0.45	3,5	22	+	+	+	—	2	—	—
		19.15	5,5	30	—	+	+	+	2,5	—	—
04.	02.	21.45	13.5	70	—	+	+	+	tr		
	03.	23.45	16	45	—	—	+	—	tr		
	04.	17.15	11,5	55	—	+	+	+			
	05.	19.00	14.5	65	—	+	+	+	tr		
	06.	0.00	6,5	18	+	+	+	—	tr		
		19.30	8	45	—	+	+	+	tr		
	07.	0.00	4,5	30	+	+	+	—	tr		
		14.30	12,5	65	—	+	—	+			
		20.15	6,5	25	—	+	+	+	tr		
		22.00	11	45	—	+	+	+			
	08.	1.00	12,5	50	+	+	+	—	tr		
	09.	3.15	8	50	+	+	+	—	tr		
		18.15	6,5	35	+	—	+	+	2	+	+
	12.	21.45	3,5	13	—	+	+	+	2,5	+	+
	16.	0.30							2,5	+	+
		22.30	4,5	22	+	+	+	—	2,5	+	+
	17.	21.15							2,5	+	+
	19.	3.30							2,5	+	+
	21.	10.30	5	15	+	+	+	—			
		23.15	4,5	12	+	+	+	—			
	22.	20.00	5,5	25	—	+	+	+	2,5	+	+
	23.	0.00							2,5	+	+
		23.30	3,5	8	—	—	—	+			
	24.	19.30	6,5	22	—	+	+	+	tr		
	25.	21.45	5,5	22	+	+	+	—	3,5	+	+
	26.	23.00							2,5	+	+
	27.	21.00	5,5	30	—	+	+	+	2,5	+	+

Bays					Pi-s						
Month	Day	CET (GMT+1h)	Amplitude in		Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
			E(mV/km)	H(gamma)							
04.	28.	19.30							2,5	+	+
		22.30	5,5	25	+	+	+	-	2,5	+	+
	29.	22.30	9	55	+	+	+	-	3,5	+	+
05.	01.	1.30	3,5	15	+	0	0	-	2,5	+	+
	04.	18.30	11,5	50	+	+	-	+	tr		
	05.	20.00							2,5	+	+
	06.	22.15							2,5	+	+
	07.	1.30	4,5	25	+	+	+	-	tr		
	08.	0.15	4,5	35	+	+	+	-	3,5	+	+
	12.	23.45	3,5	15	+	+	+	-	tr		
	15.	23.45	7	22	+	+	+	-	tr		
	17.	20.30							3,5	+	+
	19.	21.00							7	-	-
	20.	19.30	12,5	45	-	+	+	+	tr		
	22.	20.00	7	25	-	-	-	+	2	+	+
		21.45	4	30	+	+	+	+	tr		
	23.	17.30	5,5	15	+	+	+	-			
	28.	1.30							2,5	+	+
		21.00	4,5	22	+	+	+	-	2,5	+	+
	29.	1.00	4,5	28	+	+	+	-	2,5	+	+
		20.00	9	22	-	-	-	+			
	30.	0.30	8	45	+	+	+	-	tr		
	06.	01.	21.15	3,5	20	+	+	+	-	2,5	+
04.		3.45	12,5	50	+	+	+	-	tr		
11.		18.30	5,5	18	-	-	-	+			
		21.45	6,5	18	-	-	-	+	tr		
12.		11.45	7	25	+	+	+	-			
13.		23.00							2,5	+	+
14.		21.30							2,5	+	+
15.		0.00							3,5	+	+
		22.15	4,5	22	-	+	+	+	3,5	+	+
16.		22.00							3,5	+	+
		22.30							6,5	+	+
21.		20.45	2,5	12	-	-	-	+			
23.		22.00							2	+	+

Bays					Pi-s						
Month	Day	CET (GMT+1h)	Amplitude in		Ex	Ey	Hx	Hy	E(mV km)	Ex	Ey
			E(mV/km)	H(gamma)							
06.	25.	20.45	6,5	30	—	+	+	+	2,5	—	—
	26.	19.30							3,5	—	+
		21.30	9	30	+	+	+	—			
	30.	22.15	7	40	+	+	+	+	tr		
07.	03.	16.45	7	35	—	—	—	+	tr		
		22.15	6,5	22	+	+	+	—			
	04.	20.30	8	30	—	+	+	+	3,5	+	+
	06.	2.15	4,5	22	+	+	+	—	2	+	+
	07.	23.30	3,5	14	+	+	+	—	2,5	+	+
	08.	20.45	4,5	40	—	—	+	+	tr		
	09.	0.30	5,5	30	+	+	+	—	2,5	+	+
	15.	20.15	10	70	—	+	+	+	tr		
	17.	23.00							2,5	+	+
	20.	2.30							3,5	+	+
	25.	22.00	4,5	22	—	+	+	+	2,5	+	+
	26.	2.15	4,5	12	—	—	—	+	tr		
	27.	21.15	8	22	—	—	+	+	tr		
08.	01.	19.15	6,5	30	—	+	+	+	2	+	+
		22.15	5,5	45	+	+	+	—	tr		
	03.	23.30							2	+	+
	04.	23.15	3,5	8	+	+	—	+	2	+	+
	07.	22.45	5,5	25	—	+	+	—	tr		
	09.	19.30	4,5	12	—	+	+	+	3,5	+	+
	16.	21.45	4,5	12	—	—	—	+			
	17.	0.15							2,5	+	+
		1.15	3,5	14	+	+	+	—	2	+	+
	19.	0.00							2,5	+	+
		4,45							2,5	+	+
	20.	1.15							2	+	+
		20.30							2,5	+	+
	21.	19.00	3,5	18	—	—	—	+	2	+	+
		23.30	3,5	15	—	+	+	—	tr		
	22.	22.00							2,5	+	+
	23.	22.00	12,5	85	—	+	+	+	tr		
	24.	0.15	18	75	+	+	+	—			

Bays					Pi-s						
Month	Day	CET (GMT+1h)	Amplitude in		Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
			E(mV/km)	H(gamma)							
08.	24.	16.30	11	50	—	+	+	+			
	25.	18.30	10	45	+	—	+	—			
	26.	19.45	7	30	+	+	+	—	tr		
	27.	19.30	9	50	—	+	+	+			
	28.	17.00	8	45	—	+	+	+	tr		
	29.	21.45	3,5	20	+	+	+	—	2,5	+	+
	30.	23.00	4,5	25	—	+	+	+	tr		
09.	02.	20.30	5,5	22	—	+	+	+	tr		
	03.	19.30	9	45	—	+	+	+	tr		
		22.15	4,5	30	+	+	+	—			
	04.	15.30	7	35	—	+	+	+	tr		
		22.00	6,5	32	—	+	+	+	tr		
	06.	18.15	3,5	13	—	—	—	+	tr		
	07.	1.45	3,5	13	+	+	+	—	2,5	+	+
		22.45	5,5	28	+	+	+	—	3,5	+	+
	08.	20.30	5,5	20	+	+	0	+	tr		
	10.	11.00	3,5	14	+	+	+	—			
		21.15	5,5	18	—	—	—	+			
		22.15	2,5	8	0	+	+	0	2,5	+	+
		23.15	4,5	18	—	—	—	+			
	13.	22.15			/				3,5	+	+
	18.	6.15	11	45	+	+	+	—	tr		
	21.	21.15	7	35	—	+	+	+	tr		
	22.	0.30	5,5	22	+	+	+	—	tr		
	23.	21.00	5,5	30	—	+	+	+			
	24.	2.15							2,5	+	+
	25.	1.45	5,5	30	+	+	+	—	tr		
	19.45	18	65	—	+	+	—	tr			
26.	0.30	11	65	+	+	+	—	tr			
	19.00	5,5	24	—	+	+	+	tr			
29.	21.15	3,5	22	—	+	+	+	2,5	+	+	
	22.15	4,5	16	+	+	+	—	2,5	+	+	
30.	22.15	4,5	30	+	+	+	—	2,5	+	+	
10.	01.	22.30	8	30	+	+	+	—	2,5	+	+
	05.	2,15	5,5	50	+	0	+	—	3,5	+	+

<i>Bays</i>					<i>Pi-s</i>						
Month	Day	CET (GMT+1h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
11.	17.	5.15	5,5	18	—	—	+	—			
	18.	2.00	2,5	18	+	+	+	—	tr		
		21.00	2,5	22	—	+	+	+	2	+	+
	20.	21.00	6,5	35	+	+	+	—	2,5	+	+
	21.	23.30	3,5	14	+	+	+	—	tr		
	26.	20.30	10	65	—	+	+	+	3,5	+	+
	27.	21.45	5,5	18	—	+	+	+	4,5	+	+
	29.	17.45	6,5	22	—	+	+	+	2	+	+
	30.	17.00	5,5	45	—	—	—	+			
		23.30	4,5	14	+	+	+	—	4,5	+	+
12.	02.	22.15							3,5	+	+
	05.	19.30	4,5	12	—	+	+	+	2	—	+
	08.	3.30	12,5	25	—	—	—	+			
	09.	19.00	7	35	—	—	—	+	tr		
		22.30	9	50	—	+	+	+	3,5	—	+
	10.	16.45	14,5	65	—	+	+	+	tr		
		23.00	7	30	+	+	—	+			
	12.	2.00	7	30	+	+	+	—	2,5	+	+
		18.15	6,5	45	—	+	+	+	tr		
	16.	17.00	5,5	18	+	—	—	—			
	18.	3.30	10	55	—	+	+	+	tr	(ssc?)	
		23.00	9	60	+	+	+	—	tr		
	20.	17.45	3,5	12	—	—	—	+	2,5	+	+
	21.	16.30	4,5	18	—	+	—	+	tr		
		22.30							2,5	+	+
	22.	22.15	5,5	15	—	—	—	+			
	23.	23.30	2,5	18	—	+	+	+	2	—	—
	24.	18.30							2,5	+	+
		20.45							6,5	—	+
	25.	20.30	6,5	30	+	+	+	+	tr		
	26.	22.30							2,5	+	+
	27.	19.45	8	50	—	+	+	+	tr		
	29.	3.15	14,5	80	—	—	—	+			
	30.	20.30	12,5	55	—	+	+	+	tr		
		23.30	10	25	+	+	+	—			
	31.	1.00	12	35	—	—	—	+			

Further Pi-traces (earth currents)

Month	Day	CET	Month	Day	CET	Month	Day	CET
01.	02.	10.45	03.	29.	23.45	04.	29.	21.30
		11.45		30.	22.45	05.	01.	2.00
	04.	22.15	04.	01.	1.30			20.45
	15.	19.15		03.	19.00			21.00
		19.45		05.	1.00			21.45
	16.	0.15			1.30		02.	2.45
	17.	3.00			18.45			3.15
	18.	21.45			23.30		05.	2.15
		23.00		07.	19.30		09.	4.45
	27.	23.30		09.	21.15		10.	22.15
	28.	23.45			21.30		13.	0.00
	30.	23.15		10.	1.00		14.	20.30
02.	05.	21.45			1.30		15.	20.45
	12.	20.30		11.	1.00		16.	21.00
	15.	23.30			1.30			22.15
	16.	19.45		13.	23.00			23.00
	18.	0.00			23.30		17.	22.15
	21.	18.45		14.	18.30		18.	14.00
	22.	21.45			21.45		19.	9.30
		22.15		15.	23.00		21.	3.00
		22.30		16.	21.00			19.30
		23.45			21.30			20.15
	23.	0.15			22.00			22.15
		1.45			23.30		22.	3.00
	26.	23.15			23.45		24.	19.00
	27.	21.15		17.	0.00		25.	1.30
	28.	18.15			20.00		26.	2.45
03.	01.	21.00		17.	22.15			3.15
		22.45		19.	9.30			17.30
	12.	19.15			16.45			18.45
		20.15		20.	12.00			19.30
		21.45			12.45		27.	19.30
	13.	21.15			14.15			20.00
	14.	22.45		21.	12.30		30.	20.15
		23.45		24.	19.00		31.	17.30
	15.	0.15		26.	22.30	06.	01.	19.15
		0.45		27.	0.00			20.00
	20.	4.30			4.00			21.00
		20.45			20.30		02.	1.15
	23.	22.30			23.00			18.15
		23.00			23.15			19.15
	27.	23.45		28.	17.45		03.	0.30
	29.	2.30			18.45			1.45

Month	Day	CET	Month	Day	CET	Month	Day	CET
06.	04.	22.30	07.	18.	23.30	08.	20.	23.00
		22.45		19.	0.45		22.	2.00
	05.	0.00			1.15			2.45
	06.	22.30		20.	17.30			7.30
	08.	21.45			17.45			20.45
		22.00			18.15		23.	2.15
	10.	3.45			19.00		24.	23.30
	11.	0.15		20.	22.30			23.45
	14.	23.00		22.	22.30		25.	19.30
	15.	0.45		24.	0.00		26.	22.30
		20.30			15.00			23.00
		21.15			16.15		28.	0.45
		21.30		26.	14.00		29.	22.15
06.	17.	20.30		27.	11.30		30.	1.30
	18.	20.45		28.	1.15			2.15
	19.	22.45			19.30			19.30
	20.	21.15		29.	21.15	09.	01.	0.00
	21.	18.45		01.	21.30			0.45
	23.	3.15	08.	02.	3.00			4.45
	26.	20.30			23.15			19.30
	27.	20.00		03.	21.45		02.	0.15
	28.	1.30			23.00			0.45
	29.	2.15		04.	14.30		04.	3.15
		2.45		05.	1.30			22.30
		20.45			2.30		05.	1.00
		21.00			13.45		06.	0.30
07.	01.	22.15		06.	20.45			3.15
	02.	22.30			21.45			3.30
	06.	23.15		08.	1.45			3.45
	08.	0.15			18.15		07.	1.30
		4.30			23.45			2.30
	09.	20.45		09.	0.15			3.15
		23.15		10.	3.00		08.	1.45
		23.30			22.30			12.30
	11.	0.30		13.	12.00		11.	19.45
	12.	0.00		16.	4.15			21.00
		1.00			23.00		11.	21.30
		1.45		17.	18.00			22.00
		22.00			18.15		12.	0.45
	13.	17.30		18.	12.45			4.00
	15.	23.00		20.	0.30			18.00
	16.	20.15			19.15			21.30
	18.	20.00			19.30			21.45

Month	Day	CET	Month	Day	CET	Month	Day	CET
09.	12.	22.00	10.	09.	23.45	11.	01.	20.45
	13.	3.45		10.	0.00			21.30
		22.00			1.00		03.	0.00
		23.00			2.30			21.30
		23.30			10.30		04.	21.15
	15.	21.15			20.30			21.45
		23.15			21.30			22.30
		23.30		11.	1.00		07.	23.30
	16.	19.15			2.00		08.	0.15
		20.30			20.30			15.15
	17.	3.30		12.	2.00		09.	1.00
		20.00			3.30		10.	0.00
		21.30			19.30			23.45
	18.	0.15			20.30		11.	0.00
		19.45		13.	23.30		11.	23.45
	19.	16.15		14.	0.30		12.	0.15
		19.45			17.30			23.00
		22.45		15.	19.45			23.45
	20.	21.30			20.30		13.	21.45
		22.00		16.	21.00			22.15
	21.	0.30		16.	23.00			22.30
	22.	20.15		17.	20.00			22.45
		22.45			23.45		15.	1.30
	23.	0.15		18.	0.00		16.	22.00
		20.00			2.30		17.	22.30
	24.	18.00		19.	15.30		18.	20.15
	27.	23.30		22.	0.00		21.	0.00
	28.	22.30			0.45		22.	0.45
	29.	5.30		23.	22.30		23.	20.15
10.	02.	2.30			23.00			22.00
		16.15			23.30			22.45
		21.00		25.	1.45		25.	0.30
		21.30			22.15		26.	0.45
		22.15		27.	2.30			20.15
	03.	1.00			21.00		30.	22.00
		1.30		28.	0.00	12.	01.	0.30
		1.45			20.30			21.30
	04.	0.15		29.	17.00			21.45
		22.00		30.	0.30			23.15
	07.	0.15			20.45		03.	0.30
		0.45			21.00		05.	0.45
	09.	19.00			22.30		07.	3.30
		22.30		31.	18.45			21.00

Month	Day	CET	Month	Day	CET	Month	Day	CET
12.	07.	23.15	12.	19.	23.45	12.	25.	4.00
	10.	21.00		20.	21.15			21.00
	13.	17.45		21.	15.15		26.	23.15
	14.	0.45			17.15			23.30
		1.15		22.	0.15		28.	23.15
		4.45			4.45		31.	19.30
		22.15		24.	20.15			

SI-s								
Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km) H(gamma)		Ex	Ey	Hx	Hy
01.	03.	5.15	4,5	8	—	—	+	—
	07	14.15	2,5	5	—	—	—	+
	25.	6.30	3,5	5	+	—	—	—
02.	07	10.30	5,5	5	+	+	+	—(?)
	17.	13.00	9	14	—	—	—	+
		23.45	9	22	—	—	—	+
	19.	5.00	8	12	+	+	+	—
	29.	2.30	8	17	—	—	—	+
03.	21.	13.00	4,5	8	+	+	+	—
	25.	21.45	4,5	10	—	—	—	+
	26.	0.30	5,5	13	—	—	—	+
	28.	13.15	7	13	+	+	+	—
04.	17.	6.45	6,5	12	+	+	+	—
	27.	18.45	2,5	7	—	—	—	+
		22.45	3,5	9	—	—	—	+
05.	24.	6.45	5,5	8	—	—	—	+
	25.	0.30	4,5	9	—	—	—	+
		14.15	6,5	7	+	+	+	—
	28.	4.30	3,5	8	—	—	—	+(?)
06.	02.	4.15	2,5	8	—	—	—	+
	08.	3.15	5,5	9	+	—	+	—
		11.00	3,5	8	+	+	+	—
	11.	3.30	9	18	+	+	+	—
	20.	13.30	2	5	—	—	—	+
	27.	2.45	4,5	8	+	+	+	+
	29.	10.30	2,5	6	—	—	—	+
		17.30	9	14	—	—	—	+
07.	06.	6.00	4,5	6	—	—	—	+
	07.	10.15	4,5	12	+	+	+	—
	08.	16.00	9	18	—	—	—	+
	11.	5.45	3,5	7	—	—	—	+
	31.	14.00	4,5	12	+	+	+	—
08.	02.	10.15	6,5	14	+	+	+	—
	05.	18.00	8	17	—	—	—	+
	09.	11.45	4,5	12	—	—	—	+
	19.	6.15	4,5	7	—	—	—	+
		11.30	4,5	8	+	+	+	—

Month	Day	CET (GMT+1 h)	Amplitude in		Ex	Ey	Hx	Hy
			E(mV/km)	H(gamma)				
08.	20.	11.15	4,5	10	+	+	+	—
	27.	5.30	2,5	8	+	+	+	—
09.	14.	17.30	10	19	—	—	—	+
	18.	4.45	4,5	10	—	—	—	+
	25.	1.00	6,5	18	—	—	—	+(?)
	29.	10.15	7	22	—	—	—	+
10.	07.	13.15	3,5	12	+	+	+	—
	11.	19.45	3,5	7	—	—	—	+
	12.	15.00	6,5	14	+	+	+	—
	25.	9.45	3,5	8	—	—	—	+
11.	12.	7.45	5,5	14	—	—	—	+
		11.30	7	18	+	+	+	—
	14.	3.45	2,5	7	+	+	+	—
12.	07.	21.30	4,5	12	—	—	—	+
	08.	13.15	9	12	—	+	—	+

„Needles”					
Month	Day	CET (GMT+1 h)	Amplitude in E(mV, km)	Ex	Ey
01.	04.	7.00	2	—	—
	21.	15.30	2,5	—	+
	27.	7.15	2	+	+
02.	26.	14.45	3,5	—	—
03.	19.	11.30	8	+	+
	24.	14.45	2	+	+
	25.	10.15	2	—	—
	29.	7.30	5,5	—	—
	30.	2.45	2,5	—	—
04.	01.	1.45(?)		(—25	+35 nT)
05.	02.	11.30	3,5	+	+
06.	23.	15.30	4,5	—	—
07.	04.	8.15	2,5	—	+
		9.15	3,5	—	+
	15.	2.30	4,5	+	0
	28.	10.15	2,5	+	+
	29.	17.30	4,5	—	—
08.	09.	18.30	2,5	—	—
	12.	11.15	2	+	+
10.	01.	12.15	3,5	+	+
11.	14.	23.15	5,5	+	+
	20.	9.45	3,5	+	+
12.	01.	23.15	2	—	+
	11.	13.15	2,5	—	—
	12.	7.30	2,5	—	—

Pc 1-events

Month	Day	Duration	Quality	Month	Day	Duration	Quality
1.	16.	1424 —	1522 C	2.	25.	532 —	845 B
		2254 —	2330 C			2038 —	2230 C
	17.	003 —	032 B		25.	2338 —	26. 231 C
		346 —	412 B		26.	2230 —	27. 040 C
	19.	2231 —	2332 B	3.	2.	1600 —	1750 C
	20.	142 —	414 B			1812 —	1910 B
		608 —	740 B		3.	1551 —	1814 B
	21.	200 —	236 C		4.	1818 —	2320 B
		336 —	800 B		5.	355 —	536 B
		1758 —	1810 C			725 —	835 A
	22.	2030 —	2106 C			2120 —	2357 B
	26.	406 —	621 A		6.	136 —	246 A
	27.	2232 —	2310 B			1647 —	1810 C
	28.	721 —	755 B		8.	2045 —	2200 B
	30.	2356 —	2358 C		9.	024 —	255 B
2.	1.	1653 —	1815 C		10.	1937 —	2000 C
		1902 —	1924 A			2030 —	2116 B
	3.	2219 —	2238 C			2145 —	2215 C
	4.	825 —	906 B			2232 —	2315 B
		2113 —	2140 C		11.	1834 —	1936 C
	5.	505 —	602 C		12.	601 —	638 C
	6.	2018 —	2114 B		13.	223 —	437 C
	7.	549 —	636 B		15.	010 —	300 B
		1945 —	2014 C			433 —	526 B
	8.	2114 —	2149 C			2132 —	2340 B
	9.	1910 —	2057 B		16.	520 —	535 C
	11.	305 —	329 A			632 —	745 C
		2114 —	2145 B			1926 —	2033 C
	12.	104 —	127 C		18.	2121 —	2210 B
		259 —	341 A		21.	200 —	400 B
		654 —	750 B		23.	200 —	400 C
		1736 —	1818 C		31.	005 —	040 C
		1856 —	1926 C			106 —	145 C
	13.	137 —	218 C			233 —	430 B
		1922 —	1938 C			2230 —	2315 C
		1945 —	2003 C	4.	1.	240 —	410 C
	15.	035 —	051 B			550 —	605 C
		129 —	230 B		2.	1617 —	2100 C
		256 —	455 A			2135 —	2150 C
	16.	049 —	152 C			2240 —	2328 C
	17.	1842 —	2051 C		3.	307 —	438 C
	18.	428 —	658 B		4.	1700 —	2100 C
	24.	2236 —	2311 C			2230 —	2300 C

Month	Day	Duration	Quality	Month	Day	Duration	Quality
4.	5.	030 —	115 C	10.	9.	2235 —	2301 C
		300 —	400 C			2333 —	2351 C
	9.	321 —	435 C		15.	1553 —	1614
		545 —	630 C			1704 —	1728
		2220 —	2233 C			1910 —	2010
		2300 —	2310 C			2037 —	2054
	10.	013 —	025 C		20.	403 —	526 B
		225 —	340 B			543 —	628 C
	11.	525 —	616 B		21.	152 —	405 B
	12.	240 —	300 C		22.	344 —	419 C
	27.	2050 —	2300 B			422 —	512 C
	28.	411 —	451 C			536 —	636 C
		518 —	540 C		24.	256 —	323 C
5.	4.	2250 —	2320 B			335 —	410 C
		2347 —5.	129 B			500 —	535 B
	5.	300 —	310 B			2119 —	2148 C
		320 —	346 C	11.	3.	055 —	145 B
	6.	225 —	345 B			343 —	405 C
	7.	554 —	636 B		5.	109 —	210 C
		745 —	850 B			328 —	342 C
	12.	010 —	100 C		8.	2156 —	2355 C
		216 —	300 B		9.	507 —	552 C
6.	12.	1915 —	2015 C		10.	2022 —	2148 C
		2107 —	2245 B		15.	2353 —16.	037 C
	12.	2300 —13.	125 B		16.	2220 —17.	050 B
	13.	135 —	205 C		18.	318 —	341 C
7.	3.	125 —	153 B			2300 —19.	036 C
	9.	125 —	200 B		19.	043 —	244 B
8.	1.	245 —	400 B			454 —	552 C
	30.	244 —	400 B		20.	354 —	416 C
9.	11.	436 —	509 B			447 —	832 B
	17.	2351 —18.	042 C		25.	120 —	204 C
	22.	000 —	225 C		26.	2105 —	2154 C
	23.	054 —	159 B		29.	011 —	227 C
		211 —	230 C	12.	12.	526 —	628 B
	25.	204 —	230 B		14.	207 —	230 B
		1800 —	1821 C			2237 —	2247 C
	26.	1831 —	1838 C			2317 —	2341 C
		1905 —	1913 C		15.	125 —	303 B
	27.	303 —	508 B			313 —	337 B
		532 —	608 B			409 —	532 B
10.	1.	2250 —	2320 C		17.	734 —	813 B

	Month	Day	Duration		Quality
12.	21.	121	—	153	B
	22.	229	—	325	C
		400	—	434	
	25.	023	—	038	C
		2128	—	2135	C
	30.	542	—	647	B
		2058	—	2130	C

V.

Average amplitudes in 12 pulsation bands
(monthly averages for 3 hour intervals in μ V/km)

January												
LT	Periods											
	1—5	5—10	10—15	15—20	20—25	25—30	30—40	40—60	60—90	90—120	120—200	300—600 sec
0— 3	2	1	14	5	12	14	65	135	89	68	82	130
3— 6	2	0	10	65	75	73	76	88	49	19	131	188
6— 9	1	0	17	188	123	145	160	77	34	13	121	99
9—12	0	0	12	195	279	219	137	72	42	28	164	158
12—15	0	0	1	236	424	228	203	63	75	36	212	56
15—18	2	0	2	49	166	195	161	163	95	57	114	54
18—21	2	3	3	32	48	56	115	138	152	98	103	108
21—24	3	2	5	12	13	15	32	159	211	108	107	183
Average	1	1	8	96	139	117	118	112	107	54	129	123

February												
0— 3	0	3	6	17	28	22	61	259	151	36	58	213
3— 6	0	2	25	54	113	103	99	91	34	7	125	203
6— 9	1	0	48	172	243	277	167	101	24	22	163	219
9—12	0	0	19	446	421	269	167	52	48	11	165	197
12—15	5	0	14	336	587	473	249	140	34	25	120	173
15—18	0	0	21	123	436	396	311	159	36	49	67	128
18—21	0	0	9	30	106	121	111	145	147	109	130	134
21—24	0	5	6	9	10	34	75	316	326	68	100	135
Average	0	1	18	147	241	210	155	159	101	41	116	175

March

LT	Periods											
	1—5	5—10	10—15	15—20	20—25	25—30	30—40	40—60	60—90	90—120	120—200	300—600 days
0— 3	2	4	13	16	54	16	54	189	115	46	143	304
3— 6	2	7	23	61	72	83	87	90	68	31	292	239
6— 9	4	15	41	333	267	270	198	111	68	25	176	136
9—12	3	10	14	484	389	268	320	172	42		209	244
12—15	1	1	7	531	396	256	136	178	59	26	166	192
15—18	1	5	1	162	408	304	230	145	97	47	90	173
18—21	3	0	2	22	116	111	158	174	212	38	96	261
21—24	1	2	4	18	8	26	206	343	247	56	174	254
Average	2	5	13	203	214	167	173	175	114	34	168	225

April

0— 3	1	3	3	15	29	23	97	192	127	61	45	194
2— 6	5	11	27	85	63	56	88	94	88	23	114	340
6— 9	3	16	48	308	255	131	128	65	38	42	95	7
9—12	0	4	29	334	407	161	114	126	48	67	82	184
12—15	0	0	11	234	338	199	128	128	116	64	150	154
15—18	3	1	0	63	184	93	146	180	137	39	120	48
18—21	2	1	0	6	53	49	78	211	236	84	113	180
21—24	4	4	15	21	18	21	44	225	337	115	113	170
Average	2	5	16	132	167	91	103	153	142	62	104	160

May

LT	Periods											
	1—5	5—10	10—15	15—20	20—25	25—30	30—40	40—60	60—90	90—120	120—200	300—600 sec
0— 3	3	3	7	7	8	18	69	126	179	73	120	213
3— 6	1	1	19	59	75	55	68	133	125	51	66	117
6— 9	0	8	31	190	105	108	74	114	65	58	71	72
9—12	0	2	11	238	154	139	132	91	50	28	129	144
12—15	0	2	32	187	181	98	73	40	67	73	191	247
15—18	2	0	1	34	69	80	77	144	143	79	160	322
18—21	3	2	1	11	5	38	49	102	188	150	234	261
21—23	3	3	4	27	4	7	14	68	216	201	150	349
Average	2	3	13	95	76	68	70	102	136	89	140	216

June

0— 3	4	1	6	19	7	23	43	102	233	71	75	173
3— 6	3	3	7	34	25	54	144	148	69	25	78	109
6— 9	0	2	19	154	162	120	138	142	89	19	85	41
9—12	0	5	31	185	140	127	165	86	73	55	256	133
12—15	0	3	13	75	205	105	79	190	95	36	247	121
15—18	2	0	4	19	80	78	95	168	113	80	228	209
18—21	0	1	3	3	17	29	45	87	232	179	249	378
21—23	6	2	1	6	18	18	20	50	173	254	227	270
Average	2	2	10	61	81	69	90	121	135	91	181	180

July

LT	Periods											
	1—5	5—10	10—15	15—20	20—25	25—30	30—40	40—60	60—90	90—120	120—200	300—600 sec
0— 3	2	0	11	20	12	19	44	72	208	129	125	180
3— 6	2	1	6	19	46	50	138	145	85	41	60	70
6— 9	0	0	30	108	86	147	176	158	78	58	117	41
9—12	0	0	4	82	139	178	148	221	107	44	111	189
12—15	2	1	4	53	136	157	157	150	77	123	219	237
15—18	0	0	1	24	62	94	127	170	136	167	185	133
18—21	4	2	0	6	12	19	32	62	238	161	225	203
21—24	3	6	20	13	14	15	21	81	173	220	185	156
Average	2	1	9	40	63	84	105	132	141	118	154	152

August

0— 3	2	0	3	12	26	30	52	112	155	105	131	77
3— 6	3	0	6	41	70	85	64	202	94	37	48	34
6— 9	2	0	4	160	152	183	145	114	64	29	78	11
9—12	1	2	1	150	142	135	170	181	121	20	111	166
12—15	0	0	4	121	114	58	134	210	142	77	162	83
15—18	0	0	0	27	66	87	119	155	188	127	133	163
18—21	0	0	1	2	3	20	42	214	221	187	178	143
21—24	3	2	6	17	4	13	15	189	207	204	125	145
Average	1	1	3	66	72	76	92	172	149	99	121	103

September												
LT	Periods											
	1—5	5—10	10—15	15—20	20—25	25—30	30—40	40—60	60—90	90—120	120—200	300—600 sec
0—3	2	6	15	18	11	25	22	95	159	58	42	81
3—6	3	3	34	59	30	38	19	28	54	43	24	80
6—9	3	9	24	118	199	73	10	35	19	23	36	42
9—12	0	3	10	242	153	89	65	78	10	55	100	91
12—15	8	1	13	218	138	99	83	18	23	30	129	99
15—18	4	3	3	39	95	87	104	136	10	39	89	84
18—21	5	2	7	15	73	51	43	101	94	90	39	67
21—24	4	11	12	15	8	10	28	163	89	219	98	107
Average	4	5	15	91	88	59	47	82	57	70	70	81

October												
0—3	2	10	13	35	21	19	12	60	89	130	29	8
3—6	3	5	16	54	57	23	31	31	12	21	29	57
6—9	1	7	30	102	211	41	27	50	9	7	8	38
9—12	0	3	21	153	168	61	35	40	13	8	78	103
12—15	3	3	16	89	95	97	58	78	40	48	72	32
15—18	3	3	10	24	52	72	85	109	48	41	15	52
18—21	3	6	10	20	21	25	37	134	59	155	23	44
21—24	6	13	22	23	15	7	38	74	147	223	80	3
Average	3	6	17	62	80	43	40	72	52	80	42	42

November

LT	Periods											
	1—5	5—10	10—15	15—20	20—25	25—30	30—40	40—60	60—90	90—120	120—200	300—600 sec
0— 3	1	3	2	7	13	18	24	65	80	67	30	6
3— 6	1	0	2	11	63	54	55	44	15	10	9	106
6— 9	0	2	11	24	92	88	59	36	9		25	114
9—12	0	2	4	34	89	100	66	57	14	11	66	114
12—15	0	0	6	24	84	103	114	63	31	21	106	46
15—18	1	0	1	12	65	50	75	81	38	49	65	40
18—21	0	1	4	6	30	25	34	77	82	57	110	15
21—24	0	5	8	5	37	12	10	108	205	195	173	3
Average	0	2	5	15	59	57	55	66	59	51	73	55

December

0— 3	0	3	1	5	15	19	20	39	62	37	91	24
3— 6	0	0	1	10	34	46	70	36	19	19	54	96
6— 9	0	0	2	14	45	69	82	69	19	12	102	76
9—12	0	1	2	29	111	100	68	61	22	32	195	160
12—15	0	0	2	23	158	149	125	6	12	21	171	78
15—18	0	0	2	13	94	124	55	93	29	31	85	52
18—21	0	1	3	12	27	35	52	55	32	43	94	104
21—24	0	2	6	17	23	15	13	28	52	112	165	77
Average	0	1	2	15	64	70	60	48	31	39	120	83

LT	Yearly average											
	Periods											
	1—5	5—10	10—15	15—20	20—25	25—30	30—40	40—60	60—90	90—120	120—200	300—600 sec
0— 3	2	3	8	15	19	21	46	119	138	74	81	132
3— 6	2	3	15	46	60	60	78	94	59	27	34	134
6— 9	1	5	25	155	161	137	113	89	43	26	89	74
9—12	0	3	13	210	211	152	131	103	50	30	138	156
12—15	1	1	10	173	233	166	127	104	64	49	163	127
15—18	2	1	4	48	146	137	131	142	91	68	113	122
18—21	2	1	4	14	42	48	66	124	157	114	133	157
21—24	3	5	9	15	14	16	42	148	210	166	141	154
Average	2	3	11	84	110	92	92	116	102	69	118	132

VI.

*Micropulsation indices for the year
1976.*

*Activity indices for the micropulsations
(P1 to P12) Year 1976.*

	January	February	Marc	April
1.	211112454331	111555231124	111354431233	553111145545
2.	111122222441	113455541114	135543441232	111422331435
3.	111543333323	113455511414	313553221134	115532114324
4.	112454334231	121355543111	123433452114	145524441144
5.	112325443432	111455331112	113532544122	534543321142
6.	113533332322	111345554111	122532132124	125555312222
7.	111224521443	112443+54243	111553111134	132543451112
8.	111122334452	113543245134	315543322153	111434552112
9.	111111342454	121355451114	122554421132	112553341121
10.	552422235243	115543322125	125544331153	112552321113
11.	235511121355	113544441121	211455341123	225522231111
12.	11322222152	122542232212	115534443114	214323211111
13.	112155423123	112555411212	112323552114	
14.	311355324222	112555511121	112233542242	111433323222
15.	111122541212	111355424312	111432233344	111245544311
16.	113432342234	111132233312	113554211135	111552444411
17.	111355422153	113441234245	112543233143	112331334534
18.	112355542333	115542113223	112555441223	111211355521
19.	111334454221	111453234222	111345441122	111111124553
20.	114543344322	111454531113	111122442424	111211231445
21.	314554222115	111254242221	411112554243	111111311345
22.	115542232134	112435543113	111111555344	143532443353
23.	111354333135	121244353221	111111111312	112554133115
24.	111544331114	111122353343	111111111225	111354214144
25.	111124555212	311311151152	554222354442	121444344321
26.	111354542411	113422234252	125554331143	111354453211
27.	111113224523	113532232323	133543421324	411354345313
28.	111111111453	113222454333		132354134112
29.	111323312354	155511121144	124555223214	111354244322
30.	111111134355		112434335423	111234355112
31.	214521154445		112333454112	

	May	June	July	August
1.	121323554212	111344435142	115522334235	511434553231
2.	155531342223	115344424314	211324454533	114532354313
3.	455311112345	311222255442	312444545322	112332245244
4.	123334454142	212532232235	215453443323	111532155111
5.	235534232135	113543344242	114323453442	111423454342
6.	113311131345	112334544423	212445454211	111123553411
7.	212323443225	211555342212	111223245443	121311355443
8.	115543233115	212333442442	234312444254	111521553531
9.	112433532432	111112355431	114123255514	11253222454
10.	113422222355	112211244352	112323223443	111333145325
11.	212432141445	552212355134	111111353552	111111255221
12.	111534115311	112354311125	213422443552	111122235554
13.	112553211111	311122543353	121112254452	511242222452
14.	111111342241	311112552441	111311211454	111111212355
15.	111111455441	111111134551	132211135554	111211221454
16.	212333331533	112245532444	415543333444	111222354453
17.	111111354552	115521112454	113111555521	311155532432
18.	111111111255	114543334314	111444224422	111342355542
19.	211111241455	111311354442	213345534411	111322244554
20.	325534214215	111111244551	111212553341	111433335553
21.	112522244325	111344423332	111211352541	213233344445
22.	215533322314	1111111331454	112222411354	111344255511
23.	113412234145	111211134353	111111244355	21533334454
24.	112422344214	221122224555	111222332453	211555233213
25.	221523124415	215553323224	113433314542	124455442112
26.	111134434523	122134555211	111111455541	121422452112
27.	112122354523	125323325224	222223444533	222345433242
28.	111521233444	111112555311	125544314323	114523352221
29.	511453254214	111112333545	132543545234	112324554121
30.	344534124124	245512214254	114355444131	112222455311
31.	121455323212		113344552133	113321353452

The micropulsation indices for the last four months will be published in the next issue.

Pc 1 indices

	January	February	March	April	May	June
1.	0	4	1	4	1	0
2	0	1	5	5	1	1
3.	0	2	4	3	1	1
4.	0	3	5	5	3	1
5.	0	3	5	4	4	1
6.	0	3	4	1	3	1
7.	0	3	1	1	4	1
8.	0	2	3	1	1	1
9.	0	4	4	4	1	1
10.	0	1	4	3	1	1
11.	0	3	3	3	1	1
12.	0	5	2	2	3	5
13.	0	3	4	1	1	4
14.	0	1	1	1	1	1
15.	0	5	5	1	1	1
16.	3	3	4	1	1	1
17.	3	4	1	1	1	1
18.	1	4	3	1	1	1
19.	3	1	1	1	1	1
20.	5	1	1	0	1	1
21.	5	1	4	0	1	1
22.	2	1	1	0	1	1
23.	1	1	4	0	1	1
24.	1	2	0	0	1	1
25.	1	5	0	0	1	1
26.	4	5	0	0	1	1
27.	2	2	0	4	1	1
28.	2	1	0	3	1	1
29.	1	1	1	1	1	1
30.	2		1	1	1	1
31.	1		5		0	

	July	August	September	October	November	December
1.	1	3	1	2	1	1
2.	1	1	1	1	1	1
3.	2	1	1	1	3	1
4.	1	1	1	1	1	1
5.	1	1	1	1	3	1
6.	1	1	1	1	1	1
7.	1	1	1	1	1	1
8.	1	1	1	1	4	1
9.	2	1	1	3	3	1
10.	1	1	1	1	3	1
11.	1	1	2	1	1	1
12.	1	1	1	1	1	3
13.	1	1	1	1	1	1
14.	1	1	1	1	1	3
15.	1	1	1	4	2	5
16.	1	1	1	1	4	1
17.	1	1	2	1	3	2
18.	1	1	3	1	3	1
19.	1	1	1	1	5	1
20.	1	1	1	4	5	1
21.	1	1	1	4	1	2
22.	1	1	4	4	1	3
23.	1	1	3	1	1	1
24.	1	1	1	4	1	1
25.	1	1	3	1	2	2
26.	1	1	2	1	3	1
27.	1	1	5	1	1	1
28.	1	1	1	1	1	1
29.	1	1	1	1	2	1
30.	1	3	1	1	1	3
31.	1	1		1		1