I. EARTH CURRENTS

In the present, as in the previous reports of the Observatory, in particular in the report from the year 1969, (Geophysical Observatory Reports of the Geophysical Research Laboratory of the Hungarian Academy of Sciences Year 1969, Sopron 1970) five kinds of tables are published in the section earth currents.

The coordinates of the Observatory are:

φ 47°38' λ 16°43'

Φ 47,2° Λ 98,3°

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

The tables published are the following:

1. The activity indices T (earlier K_1) 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_5.

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_5 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^{-3} V/km. Row 6 contains the hourly means of the earth current field intensity, corrected for long period variations (equally in 10^{-3} 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. Results of rapid-run recording on world days. The figures show the daily frequency distribution of periods 2; 6; 10; 15; 20; 30; 40; sec and 1; 1,5; 2; 5 min, the mean amplitudes in the bands 0–1 and 1–2 min, and thes estimated spectra for each two month period on world days. In the yearly average the spectra for each three-hour period of the day are given, too. The frequencies are expressed in per mille, the amplitudes in 10^{-6} V/km. For details of the processing see J. VERŐ: Die abgeänderte Methode zur Bearbeitung der tellurischen Schnellregistrierungen. von 1960 an, im Observatorium bei Nagycenk (Acta Technica Hung. 1963. T. 43. 101.)

Mrs. J. CZUCZOR, L. HOLLÓ 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 T/14 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.

I.

Activity indices T and K_1—K_5

January

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	00111222	9	3	0	4	0	2
2.	24475684	40	7	3	6	3	6
3.	32332003	16	5	1	4	1	3
4.	00011101	4	3	0	4	1	0
5.	00121102	7	4	1	4	1	1
6.	31001010	6	3	0	4	0	2
7.	01011021	6	4	0	4	0	0
8.	11011331	11	3	0	4	1	1
9.	32111011	10	4	1	4	1	2
10.	24011010	9	3	1	4	1	2
11.	10111102	6	3	0	4	2	2
12.	30011023	10	4	1	4	0	2
13.	10111201	7	3	0	4	1	1
14.	11000002	4	3	0	4	0	0
15.	31111101	8	3	1	4	1	2
16.	11042532	17	3	0	4	1	4
17.	241110	(12)	1	0	4	2	2
18.	11100	(5)	0	0	4	1	0
19.	000	(0)	2	0	4	0	0
20.	214	(18)	3	1	4	1	2
21.	011 3112	(10)	3	1	4	2	2
22.	21011001	6	3	0	4	1	1
23.	02022001	7	3	0	4	2	1
24.	20112112	10	3	0	4	2	2
25.	00011001	3	4	1	4	1	0
26.	01011000	3	3	0	4	0	1
27.	01012011	6	2	0	4	2	1
28.	10012121	8	3	0	4	2	1
29.	21133010	11	2	0	4	1	2
30.	21232453	22	4	1	5	3	2
31.	22131110	11	5	1	4	1	2

Monthly averages:

T (N)	1,164
T (E)	0,779
K_1	3,19
K_2	0,45
K_3	4,10
K_4	1,13
K_5	1,58

February

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	21201013	10	3	1	4	1	1
2.	52244225	26	5	2	5	3	3
3.	72223101	18	5	1	4	1	3
4.	11134262	20	5	2	5	3	3
5.	22232113	16	5	2	5	1	2
6.	21011000	5	4	1	5	0	0
7.	00111000	3	4	2	4	0	0
8.	00000010	1	2	0	3	1	0
9.	0000 100	(1)	3	0	4	0	1
10.	00010121	5	3	0	4	0	1
11.	00310000	4	3	0	4	0	1
12.	00002121	6	4	0	3	0	1
13.	01142111	11	3	0	5	3	0
14.	03133211	14	3	0	4	2	3
15.	12121120	10	3	1	4	1	2
16.	00122101	7	3	0	4	2	2
17.	11122254	18	5	1	5	3	2
18.	11222322	15	5	2	4	2	3
19.	10112100	6	5	2	4	1	1
20.	00012100	4	3	0	4	1	1
21.	00012000	3	2	0	4	0	0
22.	00011001	3	3	0	4	0	0
23.	00000103	4	2	0	5	2	0
24.	12213451	19	3	0	4	2	3
25.	11420110	10	3	0	4	2	0
26.	11113300	10	3	0	4	1	2
27.	00211014	9	2	0	4	1	2
28.	62233251	24	4	1	4	1	5

Monthly averages:

T (N)	1,179
T (E)	0,705
K_1	3,50
K_2	0,65
K_3	4,18
K_4	1,22
K_5	1,50

March

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	22367612	29	3	1	5	4	3
2.	34444231	25	5	1	4	3	4
3.	32346364	31	8	4	4	3	4
4.	22436623	28	5	1	5	4	4
5.	21182275	28	5	1	4	2	5
6.	53232348	30	4	0	5	4	4
7.	96144699	48	4	3	7	5	6
8.	64544999	45	9	9	9	9	4
9.	59343392	44	6	3	7	7	3
10.	61132123	19	4	1	5	2	3
11.	00000001	1	2	0	4	1	0
12.	11121100	7	2	0	4	2	3
13.	00223212	12	3	0	4	1	2
14.	02121000	6	3	1	4	1	0
15.	21132110	11	3	1	4	2	0
16.	00012100	4	2	0	4	1	0
17.	00123111	9	3	1	5	2	2
18.	20122113	12	6	1	4	3	2
19.	10113112	10	4	2	5	3	2
20.	10012122	9	6	2	4	2	2
21.	10000101	3	3	0	4	0	0
22.	00111100	4	2	0	4	1	0
23.	00111100	4	4	1	4	1	1
24.	00111001	4	2	0	4	1	1
25.	00111000	3	2	0	4	2	1
26.	01112111	8	2	1	4	1	1
27.	00498426	32	7	5	7	4	3
28.	23233333	22	6	2	5	4	5
29.	51212332	19	5	1	4	3	2
30.	41222213	17	5	1	4	3	2
31.	12899976	51	8	8	8	5	2

Monthly averages:

T (N)	2,288
T (E)	1,664
K_1	4,29
K_2	1,65
K_3	4,82
K_4	2,79
K_5	2,30

April

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	52101004	10	2	0	5	3	1
2.	22111111	10	4	1	5	2	0
3.	12222310	13	4	1	5	3	2
4.	22124200	13	6	2	4	2	2
5.	10233222	15	5	3	5	3	1
6.	21455213	23	5	3	6	4	3
7.	21232110	12	5	1	4	2	2
8.	32423111	17	5	2	5	3	2
9.	11446312	22	5	2	6	3	3
10.	10011012	6	3	0	4	1	0
11.	11122010	8	3	1	4	1	1
12.	01122111	9	5	0	4	1	2
13.	11112111	9	5	1	4	1	1
14.	11113011	9	4	2	5	2	0
15.	02110122	9	4	1	4	2	0
16.	34311244	22	5	2	5	3	3
17.	74333276	35	7	2	5	5	5
18.	11127515	23	7	3	4	2	4
19.	43335521	26	6	2	6	4	2
20.	02219549	32	6	4	6	3	2
21.	32447969	44	6	4	6	6	3
22.	97633300	31	5	2	6	5	2
23.	21113253	18	3	1	5	3	2
24.	22212323	17	3	0	4	1	3
25.	32123222	17	4	1	4	2	3
26.	32132122	16	4	0	5	2	2
27.	71112110	14	3	0	5	1	1
28.	11101001	5	3	0	3	0	0
29.	01111112	8	3	1	4	1	0
30.	23242412	20	5	2	5	2	3

Monthly averages:

T (N)	2,060
T (E)	1,492
K_1	4,50
K_2	1,47
K_3	4,77
K_4	2,43
K_5	1,83

May

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	13313125	19	7	3	5	3	3
2.	32322222	18	9	3	5	3	2
3.	12112216	16	6	2	4	2	1
4.	32122111	13	5	2	4	2	1
5.	12322221	15	6	2	4	2	2
6.	20001112	7	3	1	5	1	0
7.	32133231	18	7	5	5	3	0
8.	10100111	5	3	0	4	1	0
9.	1100100	(3)	4	2	4	0	0
10.	11000	(3)	3	2	4	0	0
11.	100002	(4)	3	2	4	1	0
12.	51113232	18	4	2	4	2	3
13.	22111111	10	6	1	4	1	1
14.	31222232	17	6	2	4	3	4
15.	31121121	12	7	2	4	2	1
16.	11111101	7	5	1	4	2	1
17.	26512211	20	5	2	4	2	3
18.	13112010	9	5	0	4	1	1
19.	01211111	8	4	1	4	2	1
20.	22212223	16	4	1	4	4	2
21.	12111111	9	3	0	4	1	1
22.	32111121	12	3	1	4	1	2
23.	00011113	7	3	2	4	0	1
24.	11113211	11	3	0	4	1	2
25.	22311100	10	3	1	4	1	2
26.	00012102	6	4	1	4	0	0
27.	11223236	20	4	1	4	2	3
28.	64269523	37	4	2	5	6	3
29.	33422112	18	5	1	4	2	3
30.	12221221	13	4	1	5	1	2
31.	11212111	10	5	2	5	3	0

Monthly averages:

T (N)	1,459
T (E)	1,286
K_1	4,66
K_2	1,55
K_3	4,20
K_4	1,77
K_5	1,45

June

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	29556333	36	8	6	6	4	3
2.	29323212	24	8	4	6	2	2
3.	12122221	13	4	1	5	3	2
4.	22211211	12	3	1	4	2	1
5.	12122100	9	4	0	5	2	0
6.	11110000	4	3	1	4	1	0
7.	01111235	14	4	2	5	3	1
8.	44321111	17	7	2	5	2	2
9.	11111120	8	2	0	4	2	0
10.	11111110	7	3	0	5	2	1
11.	11100110	5	3	0	4	0	0
12.	11111121	9	4	2	4	1	1
13.	00223211	11	4	0	4	1	1
14.	13204221	15	3	0	3	2	0
15.	42213113	17	4	1	4	2	2
16.	13213202	14	3	0	5	2	1
17.	21333624	24	5	1	4	2	2
18.	53495436	38	6	1	6	4	4
19.	21110013	9	5	0	5	1	1
20.	21321233	17	4	0	4	2	3
21.	54212212	19	4	0	4	1	4
22.	10111112	8	6	1	4	1	1
23.	11000111	5	3	0	3	1	1
24.	10001122	7	3	0	4	1	0
25.	23111102	10	2	0	4	1	1
26.	23221432	19	4	0	4	3	2
27.	12999633	42	7	6	7	6	6
28.	22221101	11	3	1	5	2	0
29.	11111221	10	4	0	4	2	1
30.	12111110	8	3	0	3	2	1

Monthly averages:

T (N)	1,775
T (E)	1,358
K_1	4,20
K_2	1,00
K_3	4,47
K_4	2,00
K_5	1,47

July

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	12125421	18	4	0	4	2	2
2.	11333211	15	5	2	4	1	3
3.	24431109	24	4	2	4	3	1
4.	85672100	29	8	4	7	3	3
5.	13323622	23	7	3	6	4	2
6.	53555301	27	5	1	5	6	2
7.	00111122	8	3	0	4	1	1
8.	21011112	9	3	0	4	2	1
9.	99949967	62	8	7	7	8	8
10.	95212899	45	7	4	6	6	3
11.	42212123	17	5	1	4	2	2
12.	33232333	22	7	3	5	4	3
13.	33222222	18	6	1	4	3	2
14.	22121221	13	6	2	5	2	2
15.	12111111	9	3	1	4	2	1
16.	31111110	9	4	1	4	2	1
17.	11111214	12	4	1	3	3	2
18.	12111111	9	3	0	4	3	1
19.	12101112	9	4	1	4	2	1
20.	11101102	7	4	1	5	1	2
21.	52286753	38	6	3	5	4	5
22.	32432222	20	7	5	4	3	2
23.	24411220	16	5	2	4	3	3
24.	22415331	21	4	1	4	3	3
25.	99989637	60	8	6	7	7	5
26.	63232123	22	5	1	4	3	3
27.	22223423	20	4	2	5	3	2
28.	20102201	8	4	0	4	2	1
29.	66547743	42	7	2	6	5	5
30.	12222412	16	4	1	5	3	2
31.	25312227	24	3	0	5	4	3

Monthly averages:

T (N)	2,540
T (E)	2,125
K_1	5,13
K_2	1,87
K_3	4,71
K_4	3,23
K_5	2,48

August

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	42111103	13	4	0	4	2	1
2.	22112111	11	3	0	4	2	1
3.	21012101	8	3	0	4	2	1
4.	11011221	9	4	1	4	2	1
5.	10010101	4	4	1	4	2	0
6.	11111224	13	6	3	5	3	2
7.	22222234	19	6	2	5	3	4
8.	43332345	27	5	2	5	3	4
9.	66443361	33	6	4	6	4	4
10.	12234121	16	6	3	5	4	2
11.	11233211	14	6	2	4	2	1
12.	41221124	17	4	1	5	1	3
13.	01121113	10	5	1	4	3	2
14.	11111101	7	4	1	4	0	0
15.	11002113	9	3	0	4	3	1
16.	32111119	19	6	2	6	3	2
17.	99999999	72	9	8	7	7	7
18.	73244462	32	5	1	5	4	3
19.	42125230	19	5	1	5	2	2
20.	00111011	5	3	0	4	1	0
21.	02011101	6	3	1	4	1	1
22.	10112130	9	4	0	4	3	1
23.	11101011	6	2	0	4	1	1
24.	12100001	5	2	0	4	1	1
25.	11111212	10	1	0	4	2	2
26.	22224222	18	3	1	4	1	3
27.	22311222	15	4	1	5	2	2
28.	12221323	16	5	1	4	2	1
29.	42113201	14	3	0	4	2	1
30.	21121110	9	3	1	4	1	0
31.	03222432	18	4	1	5	2	3

Monthly averages:

T (N)	1,854
T (E)	1,439
K_1	4,16
K_2	1,26
K_3	4,52
K_4	2,23
K_5	1.84

September

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	01379744	35	5	2	5	4	3
2.	22545242	16	7	3	5	3	3
3.	02123224	16	4	1	4	3	2
4.	23325312	21	7	3	5	4	2
5.	12211212	12	5	2	4	2	2
6.	10111112	8	4	1	4	1	1
7.	10112112	9	5	2	4	2	1
8.	01222332	15	5	2	4	2	2
9.	01112121	9	3	0	4	2	2
10.	41100000	6	2	0	4	1	0
11.	01000010	2	1	0	4	1	0
12.	01221011	3	5	1	5	2	1
13.	02323347	24	5	2	5	2	4
14.	43335542	29	5	2	6	3	5
15.	26332012	19	5	1	5	3	1
16.	12122011	10	5	2	3	1	1
17.	11122201	10	5	1	4	1	2
18.	22112222	14	4	1	4	1	1
19.	12523243	22	5	2	5	3	3
20.	12343422	19	5	2	5	3	2
21.	43235262	27	4	1	4	4	2
22.	112231 3	(15)	5	3	5	2	1
23.	21122110	10	4	0	5	2	1
24.	21111121	10	4	1	4	2	0
25.	12220111	10	5	1	4	2	1
26.	01222211	11	6	2	5	3	0
27.	34332634	28	6	2	6	2	4
28.	41123111	14	8	2	5	2	2
29.	10212103	10	3	0	4	3	0
30.	13523412	21	4	2	5	3	1

Monthly averages:

T (N)	1,917
T (E)	1,283
K_1	4,70
K_2	1,47
K_3	4,53
K_4	2,30
K_5	1,67

October

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	23243232	21	6	1	5	3	1
2.	41243221	19	6	2	4	3	2
3.	22132355	23	7	2	5	3	2
4.	58465332	36	7	3	6	3	2
5.	11331122	14	6	3	5	1	0
6.	11312014	13	5	2	4	3	1
7.	01112003	8	4	2	5	2	0
8.	10110000	3	3	1	4	2	0
9.	11011110	6	3	1	4	1	0
10.	00112111	7	3	1	5	2	1
11.	22222241	17	3	0	4	2	2
12.	46122101	17	4	2	3	3	3
13.	00233221	13	4	1	4	1	2
14.	12111012	9	5	1	5	2	1
15.	11111011	7	3	1	4	2	0
16.	20095784	35	5	4	6	2	4
17.	36223589	38	3	2	5	3	6
18.	75622923	36	5	1	6	3	4
19.	03131121	12	3	0	5	3	1
20.	00111002	5	3	0	4	2	1
21.	00000001	1	3	0	3	0	0
22.	21122248	22	2	1	5	1	6
23.	54333573	33	2	0	5	3	5
24.	41332130	17	3	0	5	1	3
25.	01113310	10	3	1	4	3	0
26.	03011000	5	2	0	4	1	0
27.	10121103	9	4	2	4	2	1
28.	24215364	27	3	2	5	3	3
29.	40134185	26	4	1	4	3	4
30.	25331201	17	5	2	5	2	2
31.	11122011	9	3	0	4	1	1

Monthly averages:

T (N)	1,996
T (E)	1,266
K_1	3,94
K_2	1,32
K_3	4,55
K_4	2,13
K_5	1,87

November

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	00011000	2	3	1	5	0	0
2.	00122101	7	2	0	5	2	1
3.	21112113	12	3	1	5	2	2
4.	20113113	12	3	0	5	2	1
5.	11124223	16	5	2	5	3	3
6.	21123103	13	4	0	4	3	2
7.	99779753	56	8	6	7	6	5
8.	42121110	12	4	1	6	3	2
9.	111	(8)	7	0	5	1	0
10.	456 3	(36)	6	2	7	5	4
11.	62384423	32	5	1	5	4	5
12.	21243310	16	5	2	6	3	3
13.	11125312	16	4	1	5	2	1
14.	21131153	17	7	0	5	0	2
15.	00111011	5	4	0	3	1	1
16.	20122242	15	4	2	4	1	2
17.	12111110	8	4	1	5	2	0
18.	10129526	26	5	4	5	3	3
19.	44541000	18	3	1	4	2	3
20.	00112012	7	2	0	5	1	1
21.	12279631	31	4	3	6	6	3
22.	47242323	27	4	3	6	4	3
23.	41164552	28	3	2	5	3	5
24.	22254131	20	3	0	5	3	2
25.	33245352	26	7	4	7	4	3
26.	11122333	16	5	2	5	2	2
27.	11223143	17	5	2	4	1	3
28.	11021411	11	4	1	4	2	1
29.	00011000	2	3	0	4	1	0
30.	00000001	1	4	1	4	0	0

Monthly averages:

T (N)	2,060
T (E)	1,347
K_1	4,33
K_2	1,43
K_3	5,03
K_4	2,40
K_5	2,10

December

Day	T	Sum	K_1	K_2	K_3	K_4	K_5
1.	00010000	1	3	0	3	0	0
2.	00010221	6	3	1	3	0	1
3.	20001000	3	4	0	4	0	0
4.	00000114	6	3	0	4	1	0
5.	11221220	11	3	0	4	2	2
6.	01112211	9	2	0	4	1	0
7.	00011123	8	3	0	4	1	1
8.	247141	(25)	4	1	6	3	1
9.	11132101	10	4	0	4	1	1
10.	10111110	6	3	0	4	0	0
11.	00031000	4	3	0	4	0	0
12.	00021101	5	3	0	5	1	0
13.	01000021	4	3	0	4	0	0
14.	25997589	54	7	5	8	7	4
15.	73233211	22	3	1	5	2	3
16.	10111011	6	2	0	4	1	0
17.	00000001	1	3	0	4	0	0
18.	00000003	3	3	0	3	0	0
19.	12121026	15	3	0	4	2	2
20.	4212	(18)	2	0	5	3	2
21.	00001	(2)	3	0	3	0	0
22.	11111002	7	3	0	4	0	0
23.	11112200	8	4	0	3	0	1
24.	42111111	12	1	0	4	2	2
25.	10091111	5	2	0	4	1	1
26.	20010002	5	2	0	4	0	1
27.	01122213	12	3	0	4	2	2
28.	22111266	21	4	1	5	2	3
29.	41111224	16	4	1	4	3	3
30.	63221421	21	5	2	4	3	3
31.	00021000	3	5	0	4	1	0

Monthly averages:

T (N)	1,247
T (E)	0,832
K_1	3,22
K_2	0,39
K_3	4,16
K_4	1,26
K_5	1,06

II. *Average amplitudes for different periods*

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
												January North
1	8	7	2	7	7	7	6	10	16	13	12	13
2	7	4	2	4	3	3	5	7	11	9	8	8
3	33	37	37	35	35	33	35	37	37	37	34	41
4	41	42	44	26	40	39	37	34	38	49	53	42
5	57	55	39	53	35	44	24	22	20	28	42	41
6	—2	—2	—12	—25	—10	—5	+9	+15	+10	—6	—17	—46
												East
1	11	9	1	6	9	7	8	11	16	12	15	15
2	10	6	0	4	4	4	3	6	7	4	9	7
3	30	36	32	33	34	34	34	34	35	35	32	33
4	33	34	25	26	28	27	34	33	30	33	44	33
5	51	45	29	37	29	38	17	24	17	26	26	29
6	+2	—5	+2	—12	—6	—7	—1	—1	+31	+46	+37	+9
												February North
1	3	3	5	5	3	10	11	11	14	18	14	14
2	3	3	3	6	3	6	9	9	14	16	11	12
3	37	33	30	34	33	35	36	36	35	38	39	29
4	34	34	33	39	42	40	40	40	35	50	55	57
5	47	44	78	36	36	40	27	27	27	39	34	56
6	+3	—3	—16	—9	—5	+10	+9	+7	+23	+7	—48	—67
												East
1	4	4	6	5	6	12	13	14	17	13	17	17
2	3	5	3	5	3	3	10	9	7	7	10	12
3	35	32	31	35	28	35	33	32	31	32	34	32
4	27	32	36	26	32	32	33	21	37	35	37	36
5	55	35	37	24	30	17	23	26	23	32	30	37
6	—8	+6	—9	—4	—9	—9	—12	+4	+25	+47	+41	+20

and hourly means of earth current elements

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
13	12	11	5	7	5	7	7	4	6	6	8	8,3
12	9	9	6	3	4	6	6	4	6	6	7	6,1
37	37	37	37	54	37	36	37	36	32	33	35	35,9
48	55	38	35	33	37	29	35	33	35	35	34	38,8
53	32	52	38	30	44	46	47	64	50	61	61	43,2
—46	—10	+25	+4	—3	+19	+14	+16	+30	+21	+20	+2	
Component												
16	14	13	12	8	7	8	5	5	6	11	12	9,9
9	7	8	8	6	2	5	5	3	6	9	11	5,9
33	33	32	32	26	31	31	33	32	31	28	34	32,4
35	38	34	32	26	38	35	30	29	35	35	27	32,6
37	32	30	27	39	49	46	63	62	53	77	59	39,2
—28	—14	—2	+3	+3	—2	—12	—15	—18	—3	—9	+1	
Component												
15	10	10	10	8	5	8	5	3	7	2	5	8,3
15	10	10	11	8	3	6	6	3	7	3	5	7,6
35	35	33	35	32	32	33	35	35	35	33	33	34,2
49	50	41	36	35	37	24	38	35	41	32	41	39,8
66	62	63	45	30	34	56	57	41	47	45	35	44,6
—77	—46	+16	+48	+25	+15	+32	+21	+13	+12	+13	+16	
Component												
17	21	15	14	13	8	8	7	4	8	6	10	10,8
12	8	8	9	8	5	5	5	2	10	5	5	6,7
32	32	31	34	35	32	28	30	33	42	35	33	32,8
37	37	29	32	30	34	35	30	49	38	41	42	34,0
33	22	42	30	33	29	57	53	23	40	39	31	33,5
—20	—33	+2	+14	+23	+12	—4	—16	—11	—28	—11	—21	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
												March North
1	8	4	5	8	10	10	18	20	19	16	16	14
2	10	6	5	8	9	6	14	19	20	17	16	14
3	39	44	35	34	37	37	40	41	42	41	35	37
4	49	53	51	51	41	48	50	67	58	51	66	71
5	87	33	40	71	43	32	36	26	25	51	62	67
6	—33	+15	—6	—24	—10	+5	+37	+99	+118	+45	—64	—146
												East
1	12	4	4	7	9	10	16	23	23	26	30	28
2	8	4	4	4	4	7	10	13	13	18	18	22
3	34	35	37	33	38	36	35	50	38	37	40	34
4	33	42	46	48	45	35	43	29	41	32	62	58
5	98	45	26	38	38	28	25	36	13	34	27	46
6	—5	+11	+5	—10	—26	—30	—26	—7	+41	+76	+73	+54
												April North
1	8	8	11	7	17	20	21	23	20	17	16	17
2	6	11	8	7	13	17	20	21	16	15	16	14
3	35	34	32	43	38	37	42	46	40	47	41	40
4	71	65	45	42	37	52	62	51	71	46	56	67
5	64	52	73	52	53	37	28	47	28	46	42	35
6	+8	+11	+10	+12	—6	+35	+71	+102	+48	—61	—145	—206
												East
1	8	8	8	5	16	19	20	28	29	26	29	26
2	7	4	3	2	6	4	14	16	16	14	19	18
3	37	37	32	34	38	33	35	35	34	38	38	38
4	47	48	45	38	34	32	41	38	44	50	52	59
5	50	35	53	43	47	34	25	22	25	26	22	24
6	—3	+11	—18	—2	—3	—13	+6	+32	+63	+69	+46	+14

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
13	12	15	21	20	16	10	8	17	16	9	9	12,96
12	11	17	21	26	22	15	9	20	24	14	10	14,4
39	39	45	46	53	56	48	45	46	45	53	45	42,7
70	67	63	92	61	63	78	49	76	68	71	59	61,4
73	67	91	47	40	50	58	95	57	59	88	95	58,1
—163	—136	—37	+71	+90	+50	+45	+28	+39	+5	—15	—15	
Component												
28	28	28	28	26	23	20	9	13	19	14	18	18,7
20	14	13	27	27	24	14	15	20	27	17	21	15,1
37	47	45	44	61	59	52	41	44	54	52	51	43,0
56	53	35	58	73	58	55	53	83	56	77	70	51,7
36	50	60	43	22	41	89	65	44	64	72	62	45,9
—15	—29	—39	+20	+4	—34	—31	—10	+1	—9	—12	—2	
Component												
17	15	12	11	9	10	5	6	5	10	7	11	12,6
18	13	14	8	11	4	2	4	5	10	3	7	10,8
43	40	40	40	38	33	37	35	35	38	36	40	38,7
77	73	44	59	58	53	38	54	36	40	42	54	53,8
57	59	78	49	40	37	40	43	62	69	80	83	52,2
—196	—96	+8	+59	+103	+104	+32	+24	+32	+12	+26	+12	
Component												
27	21	25	25	16	15	5	10	10	13	12	14	17,8
16	16	19	11	10	8	5	7	4	13	10	10	10,4
39	21	37	40	38	34	31	36	37	35	37	40	36,0
57	40	45	47	58	34	45	53	50	60	38	47	46,1
31	71	50	36	30	51	38	50	28	29	61	70	39,6
+3	—7	—38	—20	—21	—12	—19	—22	—13	—11	—24	—10	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
												May North
1	17	15	10	11	15	22	19	21	19	17	15	16
2	19	15	11	14	8	16	15	14	12	10	12	8
3	31	32	36	32	35	41	37	39	37	33	37	37
4	59	42	51	42	51	55	68	44	47	34	46	44
5	69	69	46	48	37	48	33	43	18	39	31	38
6	+10	+14	+27	+10	+36	+90	+87	+75	+1	−117	−207	−241
												East
1	18	14	9	10	15	24	28	32	30	28	32	29
2	17	5	7	5	1	11	12	19	16	19	17	10
3	32	34	34	37	36	32	32	32	33	34	29	35
4	34	45	63	33	38	27	35	35	30	34	40	46
5	55	47	21	36	29	30	24	22	27	40	33	24
6	+5	+19	+9	0	−8	+9	+33	+63	+64	+38	0	−19
												June North
1	6	9	11	13	17	15	18	16	19	16	16	14
2	5	7	7	8	12	16	14	13	13	17	15	10
3	38	35	39	35	37	40	35	37	39	40	39	39
4	55	52	47	46	47	50	50	53	57	50	47	45
5	30	44	54	35	46	28	47	32	13	34	34	55
6	+42	+33	+26	+35	+43	+111	+123	+110	+50	−77	−165	−229
												East
1	7	10	7	10	13	14	25	22	33	32	29	25
2	4	5	5	6	9	5	10	17	15	19	13	12
3	35	37	37	33	34	34	26	37	39	33	34	35
4	41	50	38	44	39	26	28	40	42	36	47	39
5	49	30	23	23	32	43	37	14	25	48	48	51
6	+5	+11	−3	−6	−9	+21	+70	+73	+85	+69	+26	−19

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
13	13	9	12	5	6	5	5	6	7	7	11	12,2
17	9	8	3	5	1	7	6	8	9	7	14	10,4
35	37	35	34	37	35	38	33	36	35	35	36	35,5
48	38	51	39	46	33	42	31	36	54	45	43	45,4
42	55	39	48	21	32	26	47	45	37	66	71	43,7
—177	—89	+19	+85	+117	+115	+72	+14	+21	+20	+10	+6	
Component												
28	24	20	19	14	13	10	8	6	7	9	17	18,5
17	16	16	14	12	9	6	10	10	9	10	12	11,7
34	39	38	35	35	34	40	33	36	32	33	30	34,2
32	38	42	40	33	43	41	52	38	53	51	58	40,9
52	37	51	28	36	32	41	48	43	26	41	47	36,4
—15	—17	—10	—12	—27	—20	—30	—37	—29	—4	+6	—14	
Component												
11	9	4	7	3	3	2	4	9	10	7	5	10,1
10	5	2	7	3	3	4	2	10	10	6	7	8.6
44	37	34	35	36	38	36	35	33	34	35	35	37,0
45	39	57	34	50	55	51	42	41	45	47	53	48,2
37	53	28	74	35	30	22	28	43	47	61	60	40,5
—206	—142	—71	—11	+65	+60	+69	+16	+19	+17	+29	+32	
Component												
28	21	15	14	10	11	7	5	11	10	7	7	15,7
14	13	5	8	8	11	6	4	7	8	8	4	9,0
36	41	33	37	35	34	35	35	34	35	32	36	34,9
52	41	40	25	37	45	55	41	38	46	40	52	40,9
32	46	43	83	54	42	33	35	38	47	64	54	41,4
—38	—23	—25	—48	—41	—36	—46	—41	—19	—6	—6	+8	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
											July North	
1	16	13	16	16	21	22	22	23	23	21	19	17
2	13	15	12	15	16	20	22	24	14	18	16	12
3	48	36	43	49	39	42	45	44	46	38	39	39
4	70	59	68	45	65	89	88	86	76	67	73	71
5	55	92	48	65	66	64	65	38	37	48	30	60
6	+39	+20	+34	+3	+87	+79	+80	+46	—67	—136	—187	—148
											East	
1	17	15	13	14	19	21	37	39	32	40	37	35
2	10	12	6	10	12	10	21	24	19	21	21	23
3	48	35	36	43	35	37	36	36	37	37	38	44
4	41	51	57	59	28	40	42	51	58	59	59	66
5	64	73	60	37	69	42	37	50	28	53	55	65
6	—8	+13	+8	+7	+7	+39	+87	+97	+93	+69	+18	—18
											August North	
1	11	8	9	12	15	16	21	18	17	20	12	11
2	11	7	7	9	11	14	25	17	16	17	12	10
3	38	39	37	36	36	39	49	41	39	46	36	35
4	41	63	43	51	48	54	69	61	43	54	55	54
5	82	31	56	55	41	63	29	16	35	26	42	47
6	+28	+19	+12	+6	+5	+69	+68	+57	+20	—107	—174	—207
											East	
1	13	6	9	9	11	17	29	25	24	28	22	25
2	11	5	6	7	9	7	16	16	16	23	19	18
3	31	34	33	34	38	30	39	35	33	33	38	33
4	51	42	38	38	42	40	47	46	32	53	39	58
5	53	33	47	44	28	74	47	20	19	23	37	28
6	—8	+16	+15	+34	+23	+36	+85	+92	+123	+82	+31	—28

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
16	12	14	8	6	5	3	8	8	9	12	9	14,0
10	5	8	8	8	5	4	6	8	8	9	9	11,9
36	35	44	41	36	38	33	37	31	35	35	34	39,2
40	91	62	53	69	73	52	55	42	48	74	74	66,2
83	62	87	106	74	27	49	60	65	87	73	93	64,2
--116	—50	+16	+27	+51	+61	+30	+29	+14	+19	+30	+40	
Component												
34	27	28	24	23	16	12	9	6	9	12	9	22,0
19	17	17	16	12	12	6	7	6	8	14	9	13,8
35	37	39	39	35	34	38	37	34	35	39	39	37,6
56	78	75	62	67	63	55	38	52	56	56	66	55,3
55	52	71	102	89	70	59	92	47	83	57	106	63,2
—37	—32	—31	—46	—54	—58	—61	—31	—30	—23	—5	—2	
Component												
8	8	6	8	6	2	4	8	9	3	13	9	10,4
9	6	6	8	5	2	3	8	8	3	12	12	9,9
38	37	36	39	37	37	36	33	36	37	35	48	38,3
48	57	55	52	50	56	47	51	50	51	56	64	52,9
51	52	42	49	49	43	66	62	52	59	60	86	49,7
—165	—77	+20	+69	+119	+104	+40	+25	+30	+15	+15	+9	
Component												
20	22	21	18	16	8	7	8	9	5	16	16	16,0
13	13	8	13	7	7	5	8	5	5	14	13	10,8
37	33	31	37	37	35	34	37	36	34	36	37	34,9
39	39	48	46	38	42	44	44	33	41	48	58	44,3
43	51	39	41	58	35	79	61	69	52	50	67	45,7
—62	—77	—54	—49	—30	—36	—53	—54	—25	—17	—31	—14	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
												September North
1	5	8	10	8	13	14	22	20	17	14	13	17
2	6	7	8	5	10	11	20	20	15	14	10	13
3	34	36	37	37	35	40	42	40	43	38	37	36
4	41	40	51	84	57	56	43	71	58	45	36	59
5	49	56	44	79	32	23	52	30	28	46	59	44
6	+6	—15	—6	—3	—16	+18	+45	+77	+33	—64	—145	—188
												East
1	7	7	9	8	14	19	29	34	29	29	25	31
2	4	5	5	2	10	10	16	19	14	15	13	17
3	32	38	34	37	36	37	32	36	36	32	33	25
4	44	37	36	42	42	38	34	47	43	49	45	61
5	32	35	29	38	26	27	37	27	20	32	42	28
6	—1	+9	+10	+12	—2	+6	+47	+71	+111	+81	+28	—14
												October North
1	8	7	6	9	11	12	14	20	17	9	10	12
2	9	9	6	7	13	11	17	23	18	10	13	15
3	34	37	39	39	38	38	41	42	38	39	39	43
4	46	46	48	42	50	45	51	51	65	70	53	58
5	56	53	36	63	27	38	22	16	15	26	53	45
6	+6	+7	—3	—47	—38	—25	+17	+87	+78	—10	—128	—163
												East
1	10	9	7	12	16	15	16	16	24	16	18	18
2	7	8	5	7	8	10	8	10	13	12	12	10
3	33	34	33	35	34	36	38	34	37	34	38	36
4	38	43	46	39	46	38	27	42	37	53	47	42
5	61	43	23	41	25	31	28	18	22	23	16	39
6	—27	—10	—13	—13	—8	—11	+14	+57	+72	+79	+47	+21

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
14	14	16	9	8	7	8	7	4	5	5	10	11,2
16	12	11	9	5	8	9	7	4	5	6	11	10,1
38	40	36	35	35	35	34	32	37	38	37	37	37,1
62	77	56	61	47	37	53	58	49	44	53	45	51,5
40	30	47	43	43	73	49	55	61	55	42	77	49,0
—135	—61	+28	+81	+105	+77	+36	+40	+41	+15	+23	+12	
Component												
30	30	29	26	18	12	7	9	9	10	10	15	18,5
17	16	19	13	10	8	6	10	6	7	9	13	11,0
36	32	38	35	34	36	36	29	35	32	37	37	34,2
53	65	44	52	37	43	43	54	57	42	40	48	45,5
26	15	26	45	44	53	37	35	46	41	47	57	35,1
—43	—46	—41	—27	—14	—39	—53	—41	—17	—18	—11	—11	
Component												
13	13	11	10	8	8	6	10	6	5	8	9	10,1
11	13	9	8	5	10	4	12	7	6	10	10	10,8
41	37	37	34	33	39	31	32	33	34	37	33	37,1
52	49	42	47	49	50	51	48	39	47	54	48	50,8
51	59	56	45	40	49	50	80	107	58	56	107	50,9
—127	—77	+19	+49	+65	+54	+71	+86	+42	+26	+28	+6	
Component												
17	17	15	17	16	11	7	12	9	5	10	12	13,5
8	12	13	11	8	11	7	12	12	9	12	13	9,9
36	35	36	34	28	31	34	35	36	34	37	35	34,7
44	46	35	34	35	52	38	29	44	46	53	39	41,4
25	23	42	35	54	46	56	74	69	49	73	53	40,5
—1	—12	—16	—4	+11	—20	+6	—15	—15	—32	—69	—39	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
												November North
1	5	9	6	6	10	11	11	19	18	19	17	19
2	7	11	7	7	8	9	7	15	17	20	21	21
3	37	40	37	40	38	40	37	43	44	42	60	60
4	43	37	49	67	55	43	48	45	57	77	79	69
5	51	62	71	45	38	40	34	29	32	20	33	98
6	—16	—24	—24	—17	—21	—18	+10	+39	+57	+23	—49	—93
												East
1	9	14	8	9	10	17	14	21	24	25	30	28
2	3	10	4	6	7	7	6	8	12	12	13	19
3	35	32	32	32	32	33	32	35	35	36	37	36
4	32	37	35	45	31	27	32	44	41	55	58	45
5	52	32	63	38	47	33	36	23	21	12	21	55
6	+20	+5	—15	+15	+3	—4	—1	+21	+54	+87	+60	+15
												December North
1	4	4	3	5	6	6	12	13	18	14	12	13
2	7	4	3	4	1	4	2	5	12	10	8	6
3	35	35	35	35	33	36	35	32	43	44	44	36
4	40	43	32	51	49	40	41	41	30	51	52	50
5	56	30	53	28	35	26	16	22	31	6	17	22
6	+17	—25	—22	—27	—21	—3	—8	+43	+57	+10	—55	—84
												East
1	5	3	3	5	4	6	6	8	13	9	13	15
2	6	6	3	2	3	5	4	4	10	8	9	7
3	32	33	33	33	32	30	34	32	33	41	42	30
4	25	33	33	28	32	30	33	26	35	49	38	29
5	41	23	23	30	31	21	15	28	25	16	11	33
6	—6	+3	—7	—6	—7	+3	+11	+13	+55	+46	+30	+6

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
17	17	14	14	12	10	8	6	6	6	9	7	11,5
19	16	15	9	14	11	7	1	6	9	8	8	11,3
62	49	45	41	37	41	32	33	33	36	32	35	41,4
75	79	73	42	47	57	35	50	63	39	40	51	54,9
74	35	39	80	101	68	69	68	29	48	89	67	54,9
—83	—26	+3	+40	+24	+23	+31	+37	+36	+15	+28	+8	
Component												
29	30	24	19	15	9	10	6	9	8	13	11	16,4
12	13	11	11	9	8	5	4	9	11	10	11	9,4
41	37	39	36	35	35	35	38	36	33	31	33	34,9
60	40	43	39	36	42	41	37	44	36	40	34	40,5
29	51	38	63	72	54	56	62	37	42	76	61	43,9
—7	—16	—6	+14	—15	—29	—37	—56	—48	—32	—14	—12	
Component												
15	15	11	7	8	6	5	5	8	7	8	8	8,8
10	7	8	5	4	5	5	2	7	4	7	6	5,8
37	35	31	35	34	36	32	29	32	34	23	43	35,5
42	42	47	44	37	51	28	38	41	28	64	51	43,0
26	26	29	16	24	25	52	52	40	67	54	52	33,8
—72	—36	+7	+9	+24	+18	+13	+49	+32	+30	+38	+6	
Component												
15	13	13	11	10	10	4	4	7	8	8	11	8,5
8	9	11	6	5	2	3	5	8	8	6	10	5,9
41	31	33	32	31	26	36	29	31	32	34	39	33,6
27	34	43	33	28	40	32	35	39	50	40	46	34,9
17	26	14	22	35	35	41	64	35	40	36	67	30,4
—16	0	+2	+5	+2	—8	—17	—12	—15	—37	—17	—26	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
												Year 1970. North
1	8	8	8	9	12	14	16	18	18	16	14	15
2	9	8	7	8	9	11	14	16	15	15	13	12
3	37	36	36	37	36	38	39	40	40	40	40	40
4	49	48	47	45	50	51	54	54	53	54	56	57
5	59	52	53	53	41	39	34	29	26	34	40	51
6	+11	+5	+2	—7	+2	+32	+46	+59	+45	—35	—114	—155
												East
1	10	9	7	8	12	15	20	23	24	24	25	24
2	8	6	4	5	6	7	11	13	13	14	14	15
3	34	35	33	35	35	34	34	36	35	36	36	34
4	38	41	42	39	36	32	36	38	39	45	47	48
5	55	40	36	36	36	35	29	26	22	32	32	38
6	—3	+7	—1	+1	—3	+3	+26	+43	+68	+66	+36	+3
												Quiet days North
1	6	5	6	8	11	10	13	15	15	11	11	12
2	5	4	5	6	7	7	9	10	10	9	8	8
3	36	37	35	35	34	36	36	37	37	34	35	33
4	37	36	34	33	34	41	44	45	38	43	44	39
5	28	26	24	25	23	22	17	11	17	19	24	33
6	+11	+12	+12	+6	+11	+41	+50	+64	+46	—24	—105	—153
												East
1	6	4	4	7	7	12	11	13	16	16	14	16
2	5	4	3	4	4	4	5	6	6	6	8	8
3	33	35	32	32	34	33	32	32	32	32	31	32
4	30	33	31	31	32	24	29	31	30	33	39	35
5	30	23	22	22	17	23	15	18	16	20	17	25
6	—1	+3	+1	—5	—1	—5	+20	+30	+46	+61	+41	+4

12	13	14	15	16	17	18	19	20	21	22	23	Averages
Component												
14	12	11	10	8	7	6	6	7	8	8	8	10,8
13	10	10	9	8	6	8	8	10	9	10	12	10,4
41	38	38	38	37	38	35	35	35	36	36	38	37,6
55	60	53	50	49	50	41	46	45	45	51	51	50,5
55	49	54	53	44	44	49	58	55	57	65	74	48,6
—132	—76	—1	+44	+66	+60	+39	+32	+27	+18	+21	+12	
Component												
24	23	21	19	15	12	9	8	8	9	11	13	15,5
14	13	12	12	10	9	6	8	7	10	10	11	9,9
36	36	36	36	36	35	36	34	35	36	36	37	35,3
46	46	43	41	42	46	43	41	46	47	46	49	42,3
35	40	42	46	49	45	51	59	45	47	58	61	41,4
—23	—26	—22	—13	—13	—23	—30	—29	—20	—18	—17	—12	
Component												
12	9	8	5	4	4	4	4	5	5	5	6	8,0
8	5	5	5	3	3	3	3	6	5	5	6	6,0
36	33	33	34	34	34	33	33	33	33	33	35	34,5
40	44	42	36	38	40	32	35	35	40	44	44	39,1
35	36	26	23	16	21	25	22	33	33	36	35	25,4
—137	—80	—8	+44	+65	+46	+26	+12	+19	+15	+13	+15	
Component												
14	12	11	8	8	5	5	4	5	5	7	9	9,2
13	7	8	6	5	6	3	5	5	6	8	9	6,1
33	33	35	35	35	31	33	32	32	32	33	33	32,8
37	32	31	31	32	38	32	31	33	40	35	37	32,8
20	25	25	22	27	26	28	29	26	37	36	39	24,5
—21	—26	—29	—12	—12	—14	—25	—25	—17	—7	—5	—1	

Hour Parameter	0	1	2	3	4	5	6	7	8	9	10	11
												Disturbed days
1	16	22	20	20	22	28	40	78	42	60	40	25
2	20	22	26	26	28	30	48	52	42	34	44	36
3	64	46	70	44	52	50	72	78	60	118	84	79
4	92	84	86	88	90	80	136	156	76	146	168	88
5	112	64	38	190	126	182	60	86	108	84	0	81
6	—11	—26	—23	—77	—121	—121	—31	+151	+241	+13	—49	—97
												East
1	24	28	24	22	28	36	58	48	48	76	62	50
2	12	20	22	20	22	30	50	56	46	64	50	47
3	70	42	30	34	46	48	78	76	56	108	104	83
4	56	88	68	76	42	78	68	118	90	166	90	88
5	142	56	116	110	142	212	164	116	134	74	64	86
6	—57	—1	—55	+19	+48	+50	+103	+102	+197	+25	+22	+69

12	13	14	15	16	17	18	19	20	21	22	23	Averages
North Component												
38	40	24	54	54	36	18	24	56	52	20	22	35,5
50	22	28	46	66	50	30	26	66	82	34	30	39,2
76	66	64	60	82	88	80	62	72	82	90	108	72,7
144	160	148	124	158	158	156	62	122	62	140	134	119,2
58	52	130	52	146	70	188	114	126	196	112	254	109,6
—37	—113	+13	+47	+46	+57	—46	+103	+48	—102	+91	+44	
Component												
50	46	42	58	70	58	48	38	50	74	34	16	45,4
44	30	42	66	64	60	28	40	52	90	34	44	43,2
92	44	66	68	86	76	62	64	72	118	108	140	73,8
88	144	144	128	210	66	124	120	228	144	152	118	112,5
46	92	202	178	98	90	72	154	100	142	122	164	119,8
—77	—95	+5	—60	—67	—109	—39	—5	—61	—5	—26	+13	

III.

Results of harmonical analysis of the daily variations

	A_1	φ_1	A_2	φ_2	A_3	φ_3	A_4	φ_4	A_5	φ_5	A_6	φ_6
						North Component						
January	14	145	15	248	12	144	9	335	4	119	6	310
February	19	133	24	276	23	123	11	291	10	114	3	221
March	22	100	72	267	57	93	31	301	6	23	7	110
April	52	112	80	289	62	120	20	319	7	280	1	279
May	66	115	102	303	62	135	10	346	8	284	6	0
June	82	88	93	284	54	121	8	35	8	257	5	0
July	66	105	68	314	42	104	14	81	2	307	1	129
August	59	119	82	301	57	130	12	346	5	321	7	41
September	46	138	67	291	54	130	21	330	5	251	6	132
October	47	139	55	270	47	110	31	342	9	171	2	92
November	19	148	34	254	27	119	20	315	10	170	2	184
December	22	135	31	244	26	125	17	323	9	169	5	91
Year	41	113	57	284	43	122	15	327	3	195	3	54
Q	39	100	55	287	44	120	15	312	7	183	3	51
D	17	200	53	232	74	99	41	345	25	225	43	155
						East Component						
January	11	322	9	174	14	65	10	244	5	94	4	314
February	15	296	5	214	19	50	11	240	6	52	1	252
March	18	314	24	161	23	33	17	257	12	53	6	153
April	26	333	19	179	15	46	5	299	2	186	7	57
May	28	1	10	203	18	103	10	341	6	268	4	338
June	43	2	25	200	20	103	8	347	1	183	6	334
July	56	3	25	212	18	114	12	349	0	323	4	271
August	62	6	31	231	24	86	14	299	4	313	3	50
September	44	359	24	208	24	88	16	301	3	333	5	88
October	37	311	18	223	20	44	10	330	3	58	5	101
November	34	334	14	122	20	72	14	250	8	118	2	55
December	22	309	6	149	13	34	5	242	7	56	2	225
Year	30	346	15	198	17	75	9	292	2	60	2	41
Q	23	349	16	188	14	69	8	258	2	40	2	337
D	70	353	43	221	16	127	8	318	7	127	23	186

IV.

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

Month	Day	CET (GMT+1h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	End of Storm
1.	29.	19.45	5,5	12	+	+	+	—	no storm
2.	23.	21.15	7,0	18	+	+	+	—	no storm
3.	5.	9.00	?	15	?	?	+	+ (si?)	6.05.00
	8.	15.15	18,0	95	—	+	+	—	9.05.00
	9.	17.30	14,4	70	—	+	+	+ (si?)	9.19.00
	27.	8.00	12,0	25	+	+	+	—	27.19.00
	31.	6.30	9,0	18	+	+	+	—	4.1.01.00
4.	20.	12.15	18,0	42	—	+	+	—	22.16.30
6.	1.	4.00	18,0	28	—	+	+	—	6.1.14.00
	2.	3.15	14,4	25	—	+	+	—	2.08.00
	18.	1.45	4,5	22	+	+	+	— (?)	continued
		9.30	12,5	32	—	+	+	+ (si?)	19.03.00
	27.	7.00	20,0	32	—	+	+	—	27.22.00
7.	1.	14.00	8,0	22	+	+	+	—	1.20.00
	2.	6.00	4,5	9	+	+	+	—	2.14.00
	3.	23.45	18,0	56	+	+	+	—	4.10.00
	9.	0.15	18,0	63	+	+	+	—	10.05.00
	10.	15.15	8,0	13	+	+	+	—	11.04.00
	25.	0.45	16,0	88	+	+	+	—	26.24.00
	29.	1.45	10,0	32	+	+	+	—	29.22.00
8.	16.	23.15	30,0	112	+	+	+	—	18.19.00
10.	16.	10.15	12,5	42	+	+	+	—	18.24.00
11.	7.	1.45	18,0	65	+	+	+	—	7.23.00
	18.	13.30	18,5	42	+	+	+	—	continued
	19.	8.30	14,5	30	+	+	+	—	19.12.00
	21.	7.30	6,0	14	+	+	+	—	24.01.00
	24.	6.00	5,5	22	+	+	+	— (si?)	continued
		10.45	4,5	16	+	+	+	— (?)	continued
		14.00	5,5	18	+	+	+	— (?)	25.24.00
12.	2.	15.30	3,5	10	+	+	+	—	3.04.00
	14.	2.45	11,0	32	+	+	+	—	15.03.00
	18	22.45	5,5	22	+	+	+	— (?)	no storm

			BAYS						Pt-s		
Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
1.	3.	22.30	4,5	25	—	+	+	+	2,0	+	+
	5.	23.30	4.5	22	+	+	+	—	2,5	+	+
	9.	1.00	3,5	30	+	+	+	+	2,5	+	+
	13.	23.00							2,5	+	+
	14.	21.30	5,5	18	+	+	+	—			
	15.	0.00	4,0	23	+	+	+	—	2,0	+	+
	16.	16.45	9,0	52	+	+	+	+			
	17.	5.30	7,0	35	+	+	+	—			
	20.	21.00	5,5	?	+	+	?	?	2,5		
	21.	22.15	4,5	25	+	+	+	+	tr	+	+
	22.	1.00	4,5	22	+	+	+	—	2,0	+	+
	23.	3.15	3,5	20	+	+	+	—	tr		
		23.00	3,5	18	+	+	+	+	2,5	+	+
	24.	21.45	9,0	28	+	+	+	+	2,0	+	+
	25.	22.00	2,5	8	+	+	+	0	2,5	+	+
	27.	3.45	3,5	14	+	+	+	—	3,5	+	+
2.	1.	2.30	3,5	8	+	+	+	—	2,5	+	+
	2.	21.15	6,0	36	+	+	+	—	2,5	+	+
	3.	0.00	10,0	68	+	+	+	—	2,0	+	+
	4.	18.30	8,0	66	—	+	+	+			
	5.	23.30	6,5	22	+	+	+	—	tr		
	26.	2.30	4,5	16	+	+	+	—	2,0	+	+
	27.	21.45	7,0	28	+	+	+	+	2,5	+	+
	28.	0.45	9,0	28	+	+	+	—	3,5	+	+
		18.30	4,5	18	—	—	—	+	2,5	+	+
3.	3.	0.15	5,5	25	+	+	+	0	2,5	+	+
		18.15	6,5	64	—	+	+	+	3,5	—	+
		22.15	6,5	38	+	+	+	—	tr		
	4.	17.15	9,0	65	+	+	+	+			
	5.	0.00	5,5	25	+	+	+	0	tr		
		18.45	11,0	80	+	—	—	+			
	6.	23.15	11,0	52	—	—	—	+	2,5	+	+
	7.	3.30	11,0	40	+	+	+	—			
	10.	0.15	11,0	40	+	+	+	—			
		20.45	5,5	24	—	+	+	+			
	14.	3.00							2,5	+	+
	15.	2.30	3,5	18	+	+	+	—	2,0	+	+

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
3.	20.	23.15	6,5	18	+	+	+	+	2,5	+	+
	27.	22.45	11,0	48	—	+	+	+			
	28.	23.00	5,5	18	+	+	+	—	2,0	+	+
	29.	23.30							2,0	+	+
	30.	0.30	9,0	43	+	+	+	—	tr		
		21.00	4,5	25	—	+	+	+	2,0	+	+
4.	4.	1.00							2,5	+	+
		2.30	4,5	20	+	+	+	—	tr		
	6.	22.30	2,0	26	+	+	+	—	tr		
	8.	1.15	4,5	22	+	+	+	—	tr		
	10.	23.15							2,5	+	+
	16.	19.15	7,0	24	+	+	+	—			
		20.45							4,5	+	+
	17.	2.30	11,0	55	+	+	+	—	tr		
		19.30	12,5	45	+	+	+	—	2,5	+	+
	18.	23.00	11,0	38	+	+	+	—	tr		
	19.	16.00	7,0	26	—	—	—	+			
	21.	21.30	27,0	195	+	+	+	—	tr		
	22.	0.15	14,5	80	+	+	+	—			
		15.30	3,5	16	—	—	—	+			
	23.	19.00	9,0	45	+	—	+	+	2,0	+	—
		23.15	6,5	32	+	+	+	—			
	25.	0.45	5,5	25	+	0	0	—	tr		
	27.	0.30	11,0	52	+	+	+	—			
	29.	7.00							2,0	+	+
		23.00	3,5	16	—	+	+	+	3,5	+	+
	30.	2.30	5,5	28	+	+	+	—	2,5	—	—
5.	1.	20.15							5,5	+	+
		21.30	5,5	28	+	+	+	—			
		23.15	7,0	26	+	+	+	—	tr		
	2.	0.30	5,5	25	+	+	+	—			
		22.45							2,5	+	+
	3.	22.45	11,0	50	—	+	+	+	2,0	+	+
	6.	0.15	4,5	25	+	+	+	+	3,5	+	+
	7.	12.00							5,5	+	+
	8.	17.30							5,5	+	+
	11.	23.45	5,5	30	+	+	+	0	2,0	+	+
	13.	23.15							2,5	—	—
	14.	1.45	3,5	12	+	+	+	—	2,5	+	+
		19.00	6,0	32	+	+	+	—			

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
5.	15.	0.30	4,5	28	+	+	—	+	4,5	+	+
		20.30							2,5	+	+
		23.30							2,0	+	+
	16.	2.45							2,0	+	+
	21.	0.15	3,5	22	—	+	+	+			
	22.	0.15	5,5	18	+	+	—	+	tr		
		4.45	3,0	13	+	+	+	—			
	23.	23.00	5,5	22	+	+	+	+	2,0	+	+
	26.	22.30							3,5	+	+
	27.	23.00	9,0	42	+	+	+	+	tr		
	28.	1.45	14,0	50	—	+	+	—			
6.	8.	0.00	9,0	42	—	+	+	+	2,5	+	+
	9.	20.15	3,5	15	—	+	+	+	2,5	+	+
	12.	22.45							2,5	—	—
	15.	1.15	4,5	16	+	+	+	—	2,5	+	+
	17.	0.15	3,5	20	+	+	+	+	6,0	+	+
	18.	23.30	9,0	43	+	+	+	—			
	19.	22.15	4,5	28	0	+	+	+			
	20.	18.00	8,0	35	+	+	+	+			
	22.	20.15							2,5	—	+
		21.30	3,5	12	—	—	—	+			
		22.15							3,5	+	+
	24.	20,45	4,5	16	—	+	—	+	2,5	+	+
7.	3.	22.30	4,5	14	+	+	+	—	5,5	+	—
	4.	3.15							9,0 (pg)		
	8.	0.00	5,5	22	+	+	+	—	tr		
		22.30							2,0	+	+
	10.	1.45	18,0	83	—	—	+	+	tr		
	11.	2.15	6,5	32	+	+	+	—			
		21.30	5,5	25	+	+	+	—	tr		
	12.	0.15							1,0	+	+
	13.	22.00	4,5	15	—	+	+	+	2,0	+	+
	14.	2.45	3,5	22	+	+	+	—	2,5	—	—
		19.30	3,5	22	—	+	+	+			
		23.45	3,5	14	—	+	+	+	2,0	—	+
	15.	22.15							2,5	+	+
	16.	1.00	4,5	22	+	+	+	—	2,0	+	+
	17.	3.15							2,5	+	+
		22.45	8,0	45	+	+	+	+	tr		

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
7.	19	4.00							2,0	+	+
	21.	0.30	6,5	38	—	+	+	+			
	22.	5.45	7,0	16	—	0	+	+			
	24.	23.15	4,5	22	+	+	+	+	2,0	+	+
	26.	23.00	4,5	22	+	+	+	+			
	27.	16.15	6,5	45	+	+	+	+	2,0	+	+
		20.15	5,5	42	0	+	+	+	tr		
	28.	0.15	3,5	15	+	+	+	—	1,0	+	+
8.	1.	22.00	3,5	8	+	+	+	0	2,5	+	+
	5.	0.45							2,5	+	+
	6.	22.15							3,5	+	+
		23.30	4,5	18	+	+	+	—	2,5	+	+
	7.	22.30	8,0	50	—	+	+	+	tr		
	8.	23.30	6,5	38	+	+	+	—	tr		
	9.	18.45	7,0	50	—	+	+	+	3,5	—	+
	10.	18.30							3,5 (pg)		
		22.45	4,5	7	+	+	+	0	3,5	+	+
		23.30							2,5	+	+
	12.	0.00	6,5	22	+	+	+	—	tr		
		20.15							3,5	—	+
		22.15	3,5	17	+	+	+	—	3,5	+	+
	13.	22.15	5,5	30	+	+	+	+	tr		
	14.	22.15	2,5	8	—	+	+	+	2,0	—	—
	15.	0.30							2,0	+	+
		3.45									
	16.	0.15	4,5	28	—	+	+	+	tr		
	17.	17.45	27,0	120	—	+	+	+	tr		
		23.15	11,0	32	+	+	+	—	2,5	+	+
	22.	20.00	3,5	15	—	+	+	+	tr		
	26.	22.30	4,5	22	—	+	+	+	2,5	+	+
	29.	14.30	4,5	10	+	+	+	—			
		16.15	3,5	14	—	+	+	+			
	31.	20.00	4,5	?	+	+	?	?	3,5	+	+
9.	3.	4.00							2,5	+	+
		21.45	8,0	26	—	+	+	+	2,5	—	+
	5.	23.00	4,5	30	+	+	+	+	tr		
	6.	23.00	5,5	22	+	+	+	—	2,5	+	+
	7.	21.45	5,5	28	—	+	+	+	3,5	+	+

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
9.	8.	19.30	3,5	32	—	0	+	+	4,5	+	+
	13.	20.45	5,5	42	—	+	+	+	2,5	—	—
		23.15	6,5	56	+	+	+	—	tr		
	14.	5.00							6,5 (pg)		
	15.	3.00	7,0	45	+	+	+	—	tr		
		10.45	6,5	15	+	+	+	—			
	18.	1.30							2,5	+	+
	21.	0.00	5,5	25	+	+	+	—	tr		
		19.00	11,0	56	+	+	+	+			
	22.	23.00							3,5	+	+
		23.30	6,5	18	+	+	+	—	2,5	+	+
	24.	1.15	4,5	16	+	+	+	—	2,5	+	+
	25.	4.45							2,5	—	—
	27.	17.00	9,0	55	—	+	—	+	tr		
		23.15	7,0	30	—	+	+	+	2,5	+	+
10.	3.	20.30	8,0	35	+	+	+	+	tr		
	6.	22.15	5,5	25	+	+	+	—	2,5	+	+
	7.	22.45	3,5	9	+	+	+	—	3,5	+	+
	9.	1.00							1,0	+	+
	11.	19.30	6,5	30	—	+	+	+	tr		
	12.	0.30	6,5	35	+	+	+	—	2,5	+	+
		4.30	11,0	64	+	+	+	—	tr		
		21.30	2,5	10	—	—	—	+			
	14.	2.15	2,5	22	+	+	+	—			
	15.	21.45							3,5	+	+
	17.	17.30	11,0								(pg?)
		22.30	21,5	95	+	+	+	—	tr		
	18.	17.30	21,5	58	+	—	+	+	tr		
		22.30	6,5	32	+	+	+	—			
	22.	23.00	14,5	56	+	+	+	—	2,5	+	+
	23.	17.45	9,0	58	—	+	+	+			
	24.	19.30	4,5	25	—	+	+	+	2,0	+	+
	25.	17.30	4,5	22	—	+	+	+	tr		
	26.	3.15	2,5	16	+	+	+	—	2,5	+	+
	27.	22.15	5,5	30	+	+	+	+	2,5	+	+
		23.30							3,5	+	+
	28.	19.30	9,0	50	—	+	—	+			
	29.	0.15	5,5	21	+	+	+	—			

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
11.	3.	0.15							2,5	+	+
		22.15	8,0	32	—	+	+	+	2,0	+	+
	4.	1.00	3,5	15	+	+	+	0			
		22.30	5,5	22			+	+			
	5.	17.15							2,5	+	+
		20.30	3,5	18	—	+	+	+	2,5	—	+
		21.15	5,5	22	—	+	+	+	2,0	+	+
	6.	22.00	4,5	22	—	+	+	+	1,0	—	+
	7.	20.30	7,0	43	+	+	+	+			
	10.	22.15							5,5	+	+
	11.	1.45	?	42	+	+	+	—			
		21.15	?	35	—	+	+	+	tr		
	12.	17.00	?	22	—	—	—	+			
	13.	23.00							3,5	+	+
	14.	19.15	10,0	28	+	—	+	+			
		20.45							5,5	+	+
		21.30							5,5	+	+
	16.	0.30	3,0	12	+	+	+	—			
		18.15	6,5	25	—	—	0	+	2,5	—	—
		21.15							2,5	+	+
		22.00							4,5	+	+
	18.	0.30							2,5	+	+
		23.00	4,5	65	—	+	+	+	5,5	+	+
	20.	23.30	3,5	14	+	+	+	+	4,5	+	+
	23.	23.30	5,5	30	+	+	+	—			
	25.	18.30	11,0	58	—	—	—	+			
	27.	22.00	6,5	25	—	—	—	+	tr		
		23.15	4,5	22	—	+	+	+			
	28.	15.15	7,0	28	—	—	—	+	tr		
		22.00	3,5	12	+	+	+	+			
	30.	22.45							2,0	+	+
		23.15							2,0	+	+
12.	1.	23.00							2,0	+	+
	3.	1.45	3,5	14	+	+	+	—	2,5	+	+
	4.	21.15	7,0	30	—	+	+	+	4,5	+	+
	5.	19.30	2,5	9	—	—	—	+			
	7.	22.00	3,5	36	—	+	+	+	2,5	+	+
	8.	4.00	?	45	+	+	+	—			
		14.30	8,0	45	—	+	—	+	tr		
	13.	18.30	2,5	10	—	+	—	+	2,5	+	+

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy	E(mV/km)	Ex	Ey
12.	17.	21.45	3,5	12	—	+	+	+	2,5	—	+
	19.	20.00							2,0	—	—
		23.15	6,5	42	+	+	+	—	2,0	+	+
	21.	21.45							3,5	—	+
	24.	1 00	5,5	32	+	—	—	—	2,0	+	+
	27.	13.30	3,5	8	—	—	—	+	tr		
		22.30	7,0	14	—	+	—	—			
	28.	19.00	11,0	50	—	+	+	+			
		21.00	13,0	38	+	+	+	—			
		23.30	11,0	50	+	+	+	—	3,5	+	+
	29.	21.15	5,5	18	+	+	+	—			
		23.30	7,0	60	—	+	+	+	tr		
	30.	17.15	5,5	45	—	—	—	+			

Further pt-traces (earth currents)

Month	Day	CET
1.	2.	23.00
	3.	21.30
		22.00
		22.30
	7.	23.45
	8.	0.00
		0.45
		1.15
		1.30
	9.	22.30
		23.15
	10.	0.15
		18.15
	13.	0.30
		1.00
	23.	21.30
	25.	17.30
	26.	1.30
		3.00
	28.	0.45
		14.30
	31.	19.30
		20.45
2.	1.	1.30
		1.45
		3.00
		5.15
		23.15
	2.	23.30
	3.	10.00
		11.00
	4.	21.30
	5.	2.45
		21.45
		22.30
	7.	0.30
	12.	16.15
	15.	3.00
		4.00
		16.00
		20.00
2.	16.	0.45
		23.30
	17.	17.00
		21.15
		21.30
	18.	19.30
	20.	14.45
		23.00
	21.	22.30
	28.	1.00
		2.15
		19.30
3.	1.	0.15
	2.	1.15
		2.15
	4.	23.15
		23.45
	5.	22.00
	6.	2.00
	7.	0.00
	11.	21.15
	16.	22.30
	18.	22.30
	19.	21.45
	21.	0.00
	23.	23.00
		23.30
	28.	20.15
		22.45
	29.	0.00
		23.15
4.	2.	21.30
		23.30
	4.	6.30
		9.15
		21.30
	5.	0.00
		6.15
	8.	22.15
		22.45
	13.	21.00
4.	14.	23.00
	15.	21.00
	16.	20.45
		21.00
	21.	20.00
	24.	21.30
	25.	20.15
	26.	0.30
		23.45
	28.	1.45
		21.45
	29.	22.15
	30.	21.30
5.	4.	10.45
	5.	1.00
	7.	20.00
		20.30
		21.00
	8.	19.15
		23.15
		23.30
	9.	19.45
		20.00
	11.	8.30
		19.15
		23.15
		23.30
	12.	0.15
		20.45
	14.	0.00
		1.15
		2.00
	15.	23.45
	16.	0.00
		0.30
		23.45
	17.	0.00

Month	Day	CET
5.	19.	21.30
	20.	21.00
		21.30
	22.	0.30
		1.00
	23.	19.15
	24.	21.15
	25.	0.15
		0.30
		15.15
		22.00
		22.15
		22.45
	26.	20.30
		22.15
	27.	19.45
		20.00
	29.	16.45
		21.30
	30.	0.00
6.	2.	21.15
	3.	22.30
	4.	21.45
		22.15
		23.00
		23.15
		23.45
	7.	5.15
		21.30
		22.15
	8.	21.45
	9.	20.00
	10.	2.00
	11.	1.15
		1.30
		2.15
		2.45
		18.15

Month	Day	CET
6.	12.	2.45
		20.00
		20.30
	14.	3.15
		20.15
	15.	17.15
		17.30
	16.	23.15
		23.45
	17.	23.15
	20.	17.15
		19.00
		20.45
		21.15
	21.	2.30
	23.	2.30
	25.	1.30
	26.	19.45
		20.15
	29.	17.30
7.	1.	2.15
		2.30
	3.	1.00
	7.	20.15
	11.	21.15
	12.	21.00
	16.	19.00
		19.15
	18.	20.15
		20.45
	19.	4.45
		18.15
	20.	20.00
		21.15
	21.	23.00
	22.	21.00
	23.	19.15
	29.	0.00

Month	Day	CET
7.	31.	18.45
		22.00
8.	4.	20.30
		23.15
	5.	0.15
		0.30
		2.30
	6.	0.15
	7.	21.00
	10.	4.15
	11.	0.30
	12.	0.30
		22.45
	13.	19.45
	14.	21.00
		23.30
	15.	23.30
	18.	0.15
		1.30
	19.	1.00
		1.15
		18.30
		18.45
	20.	22.45
	21.	21.15
		22.15
	23.	0.45
	24.	4.00
	27.	2.30
		2.45
	28.	23.45
	29.	0.15
	30.	1.45
		2.15
	31.	20.45
		22.30
9.	2.	22.30
		23.00

Month	Day	CET
9.	6.	15.45
		22.15
		22.30
	7.	1.45
		2.15
		21.15
	14.	18.45
		19.45
	15.	2.45
		22.00
	17.	0.00
		2.00
	18.	1.45
		2.00
		21.30
	19.	22.30
		23.15
	20.	20.30
	23.	0.45
		1.15
	24.	0.45
		1.30
		2.00
		19.15
	25.	21.30
	26.	17.15
		22.30
		23.15
	27.	0.30
		23.30
	28.	1.45
		2.15
	29.	23.30
10.	1.	20.00
	2.	22.45
	3.	23.15
	4.	0.00
		23.00
		23.45

Month	Day	CET
10.	5.	20.15
		20.30
	6.	1.00
		19.45
		20.15
		20.45
		21.15
		22.30
	7.	23.45
	8.	0.30
		0.45
	9.	1.00
		5.45
	13.	16.30
		19.15
	14.	1.15
		21.00
		22.15
		22.30
	16.	20.45
	20.	21.45
		22.00
	21.	23.45
	22.	1.00
		21.45
	24.	19.00
		19.15
	25.	0.30
	26.	4.15
	28.	2.30
		22.45
		23.00
		23.45
11.	3.	1.00
		23.45
	5.	20.00
	11.	1.00
		1.15
	13.	0.30
		1.00

Month	Day	CET
11.	13.	23.15
		23.30
		23.45
	14.	0.00
		0.30
		1.30
		1.45
		21.45
		22.00
	17.	3.30
	18.	1.30
	24.	20.30
	25.	0.15
		21.45
		22.15
	27.	13.30
	28.	5.30
		20.30
12.	1.	0.00
		22.15
	3.	2.30
		20.45
		22.00
	8.	22.45
	9.	23.30
	12.	22.45
	13.	23.30
	14.	0.15
	17.	23.00
	19.	22.45
	20.	22.30
	21.	22.00
	23.	3.15
	24.	0.00
	28.	20.30
		21.30

SI-s

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy
1.	21.	19.45	2,5	7	+	+	+	—
		20.15	2,5	7	+	+	+	—
	29.	14.00	4,5	12	+	+	+	—
	30.	17.30	9,0	20	+	—	—	+ (b?)
2.	1.	21.00	3,5	9	+	+	+	—
	12.	18.45	4,5	6	—	—	+	— (?)
3.	2.	13.15	7,0	13	+	+	+	—
	3.	14.15	9,0	18	—	+	+	+
4.	1.	23.00	6,5	20	+	+	+	— (b?)
	30.	9.00	5,5	8	+	+	+	—
5.	7.	18.30	7,0	16	+	+	+	+
	12.	1.45	7,0	16	—	—	—	+
	13.	11.00	3,5	10	—	—	—	+
	20.	4.15	4,0	12	—	—	—	+
	26.	12.30	2,5	6	+	—	—	—
6.	2.	16.30	4,5	8	+	+	+	—
	14.	6.15	4,0	8	—	+	+	+
		14.30	5,5	11	+	0	+	— (ssc?)
	26.	4.00	6,5	14	—	—	+	— (b?)
7.	4.	7.00	7,0	16	—	—	—	+
	5.	15.15	11,0	22	—	—	—	+
		17.00	8,0	17	—	—	—	+
	7.	14.00	2,5	6	—	—	—	+
		18.30	5,5	13	+	+	+	—
	17.	7.30	2,5	5	—	0	+	—
	24.	12.30	?	28	+	+	+	—
	25.	22.00	10,0	18	+	+	+	— (?)
	28.	13.00	4,0	8	—	—	—	+
		14.30	3,5	8	+	+	+	—
	31.	23.15	12,0	32	+	+	+	—
8.	14.	17.00	3,0	12	+	+	+	—
	15.	22.45	6,5	21	+	+	+	— (b?)
	19.	12.15	9,0	22	+	+	+	—
	29.	2.15	3,5	12	—	—	+	— (b?)
	31.	4.30	5,5	11	+	+	+	— (ssc?)
9.	20.	5.15	3,5	8	—	—	—	+
	21.	11.45	4,5	9	—	—	—	+ (?)

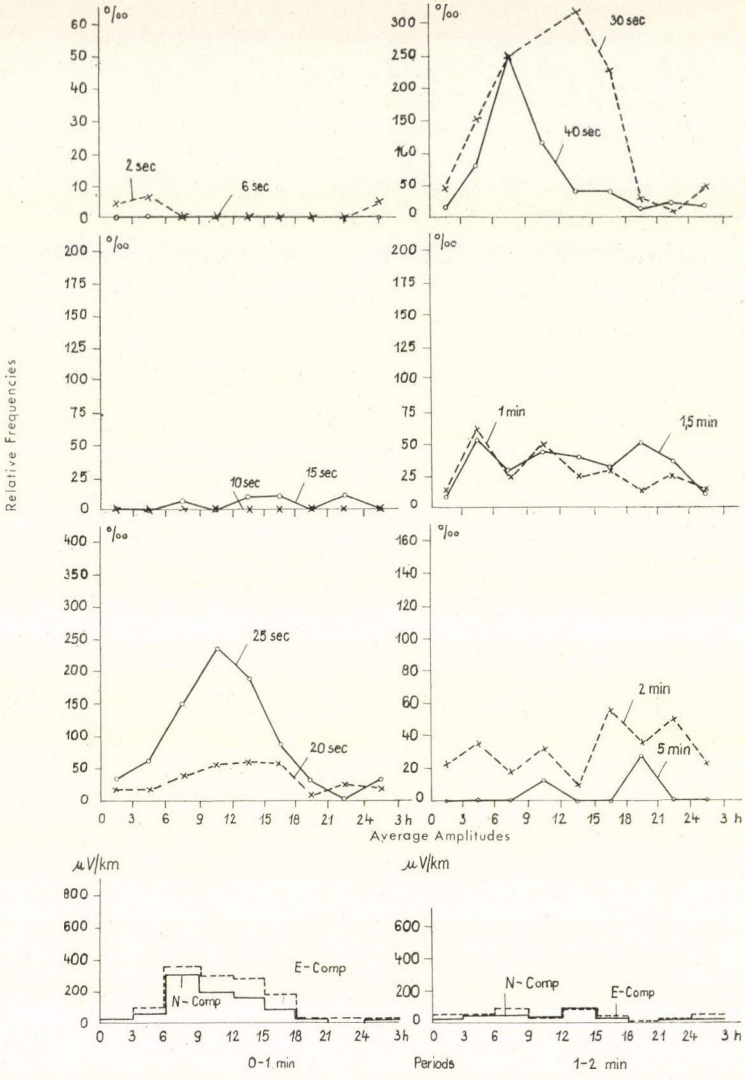
Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	H(gamma)	Ex	Ey	Hx	Hy
9.	28.	12.00	6,5	14	+	+	+	—
	29.	12.45	4,5	12	—	—	—	+
	30.	15.15	9,0	14	—	—	—	+
10.	1.	2.30	3,5	9	+	+	+	—
	18.	7.30	?	25	—	—	—	+
	27.	9.30	5,5	9	+	+	+	— (b?)
	28.	3.45	5,5	11	+	+	+	— (?)
		6.45	4,5	9	—	—	—	+
	29.	1.45	5,5	13	—	—	—	+
11.	2.	21.00	2,0	7	+	+	+	—
	4.	15.30	2,0	5	+	+	+	0
	17.	5.45	4,5	12	+	+	+	—
	20.	22.00	2,5	8	+	+	+	—
12.	2.	19.45	3,5	10	—	—	—	+
	9.	10.45	4,5	10	+	+	+	—
	11.	11.30	6,5	14	—	—	—	+
	12.	10.00	4,5	11	—	—	—	+
	14.	17.30	5,5	14	—	—	+	— (?)
	20.	3.45	2,5	7	—	—	—	+

„Needles"

Month	Day	CET (GMT+1 h)	Amplitude in E(mV/km)	Ex	Ey
1.	5.	10.15	2,5	—	—
	13.	14.30	3,5	—	—
	30.	7.30	5,5	+	+
2.	5.	6.15	2,5	—	+
	10.	15.45	4,5	+	+
	11.	8.15	3,5	—	—
	15.	11.45	3,5	—	—
3.	4.	13.30	7,0	+	+ (si?)
	9.	16.45	8,0	—	—
4.	5	16.15	2,5	+	—
	20.	16.15	2,5	—	—
	22.	6.45	9,0	—	+
	26.	11.45	4,5	—	—
5.	7.	2.45	7,0	—	+
		19.45	4,5	—	—
	27.	6.15	2,5	+	+
	29.	5.15	3,5	—	+
6.	7.	22.45	3,5	+	+
	17.	8.45	6,5	+	—
7.	3.	8.30	3,5	—	—
8.	2.	2.30	3,5	+	0
	16.	19.00	2,5	+	+
9.	1.	5.45	2,5	+	+
	30.	5.45	5,5	—	—
10.	1.	3.45	4,5	—	—
	5.	20.00	5,5	+	—
12.	26.	9.30	3,5	—	—

V.

Results of rapid-run records (for explanations see pp. 6 and 59)


Relative Frequencies
‰
2 sec
6 sec
30 sec
40 sec
10 sec
15 sec
1 min
1,5 min
25 sec
20 sec
2 min
5 min
0 3 6 9 12 15 18 21 24 3 h
Average Amplitudes
μV/km
E-Comp
N-Comp
0-1 min
Periods
1-2 min

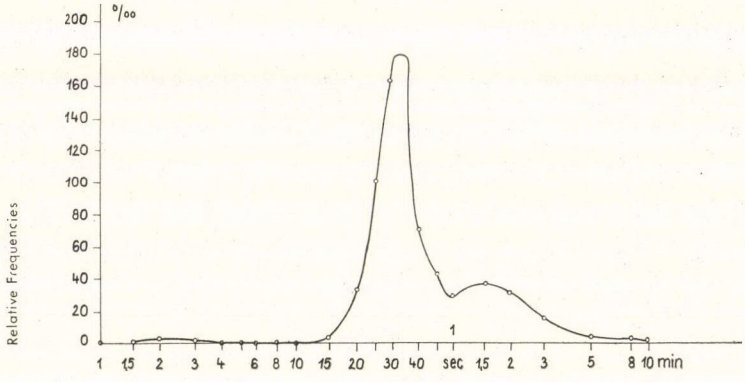
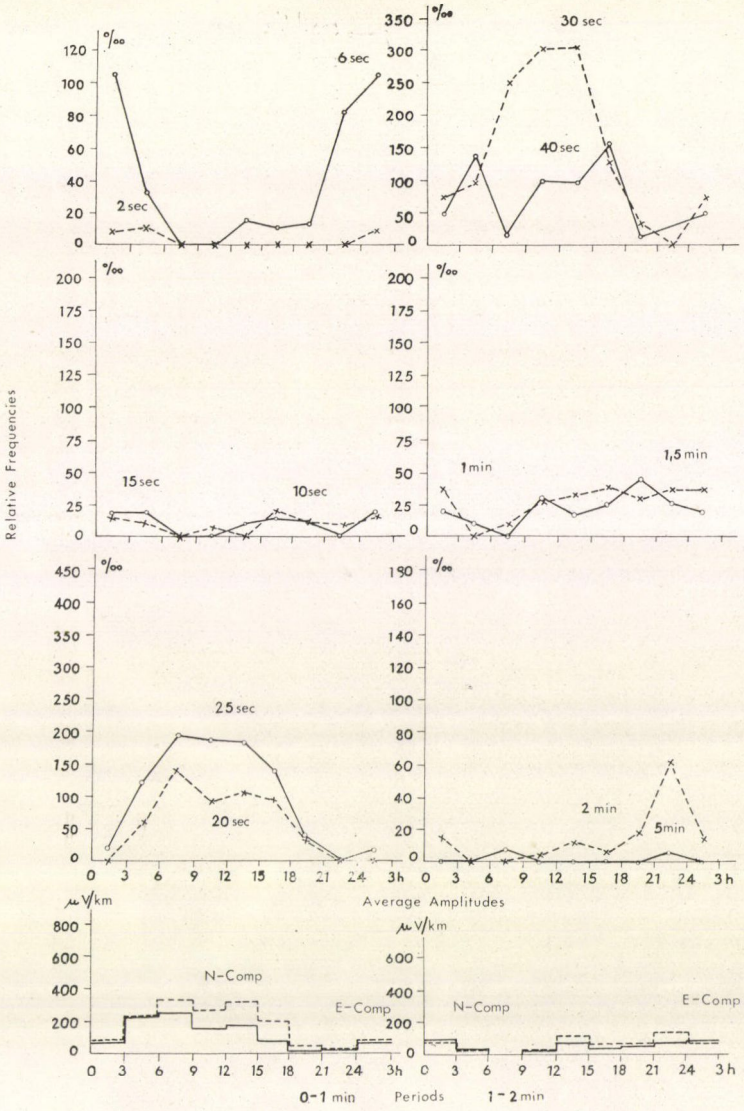

Relative Frequencies
‰
1
1 1,5 2 3 4 6 8 10 15 20 30 40 sec 1,5 2 3 5 8 10 min

Fig. 1a.


Relative Frequencies
‰
6 sec
2 sec
30 sec
40 sec
15 sec
10 sec
1 min
1,5 min
25 sec
20 sec
2 min
5 min
Average Amplitudes
μV/km
N-Comp
E-Comp
0-1 min
Periods
1-2 min

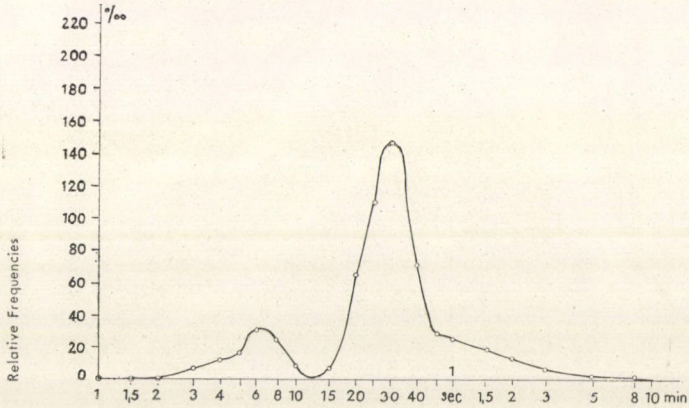

Relative Frequencies
‰
1
1 1,5 2 3 4 6 8 10 15 20 30 40 sec 1,5 2 3 5 8 10 min

Fig. 1b.

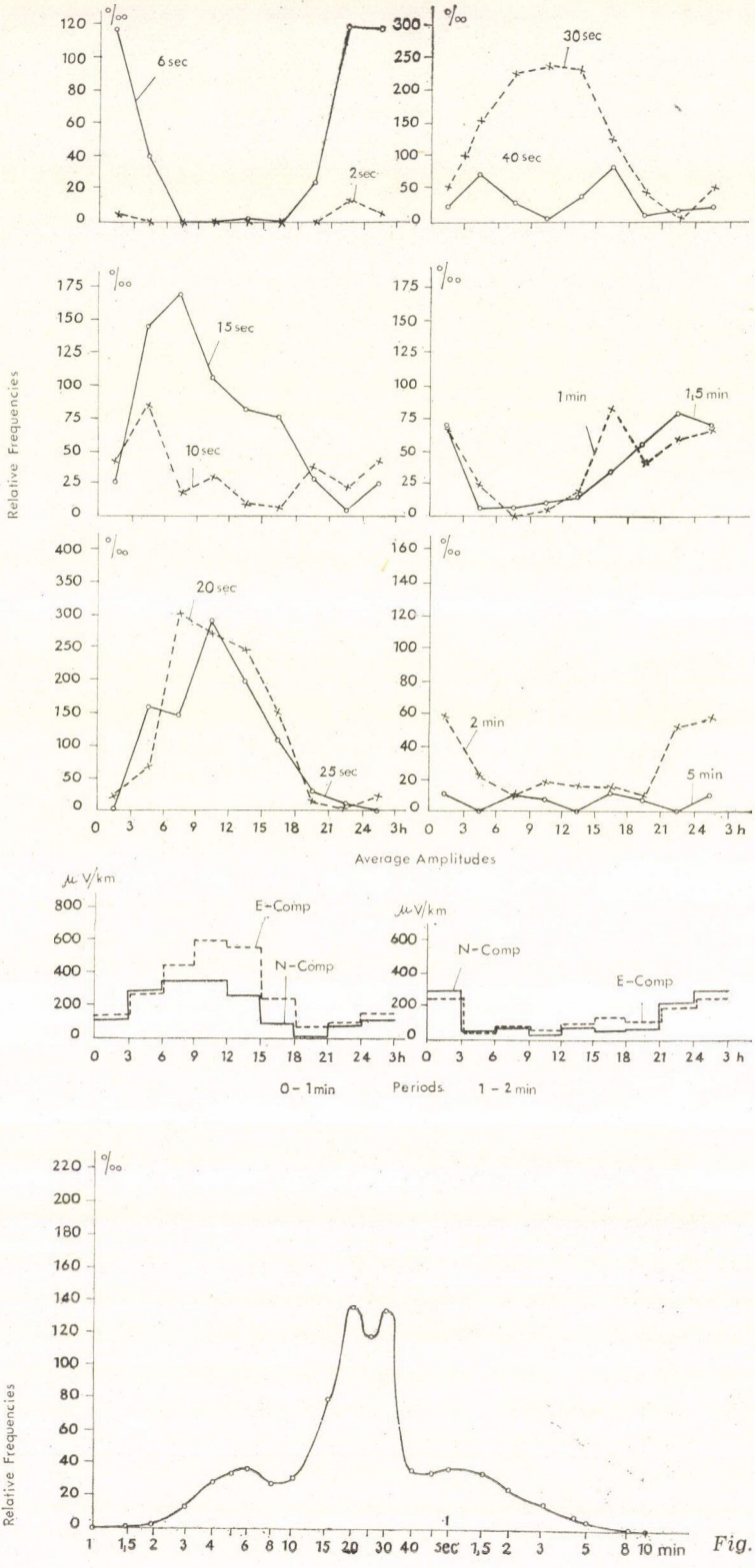
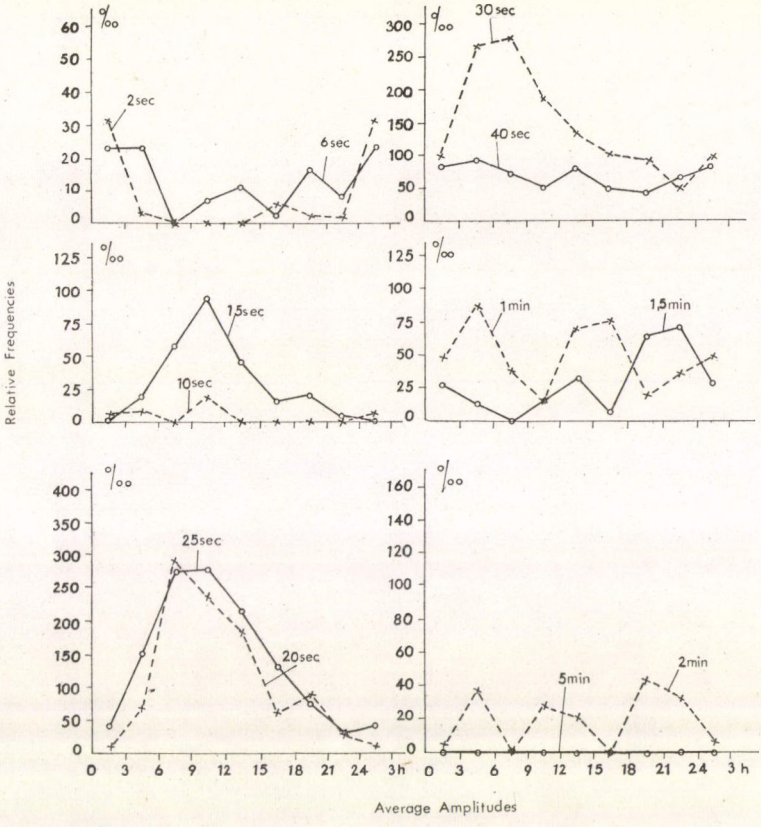
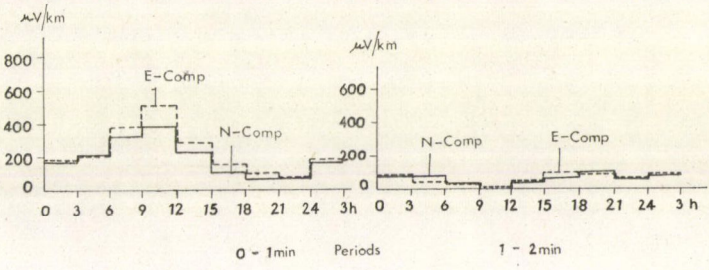

‰
6 sec
2 sec
30 sec
40 sec
15 sec
10 sec
1 min
1,5 min
20 sec
25 sec
2 min
5 min
Relative Frequencies
0 3 6 9 12 15 18 21 24 3h
Average Amplitudes
μV/km
E-Comp
N-Comp
0 – 1 min
Periods
1 – 2 min
220
200
180
160
140
120
100
80
60
40
20
0
1 1,5 2 3 4 6 8 10 15 20 30 40 sec 1,5 2 3 5 8 10 min

Fig. 1c.


‰
2sec
6sec
30sec
40sec
1,5sec
10sec
1min
1,5min
25sec
20sec
5min
2min
Relative Frequencies
0 3 6 9 12 15 18 21 24 3h
Average Amplitudes


µV/km
E-Comp
N-Comp
0 3 6 9 12 15 18 21 24 3h
0 - 1min Periods 1 - 2min

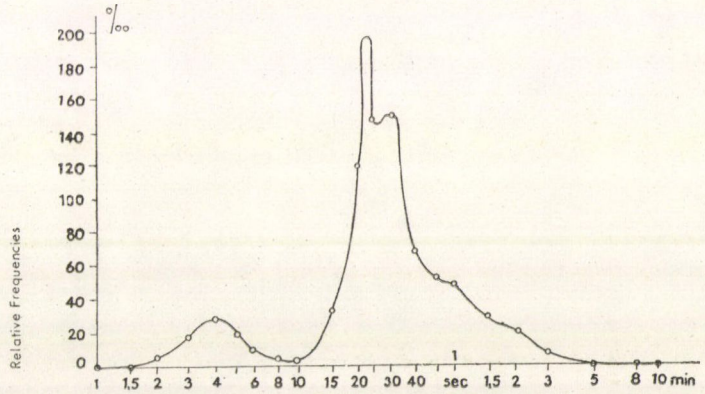
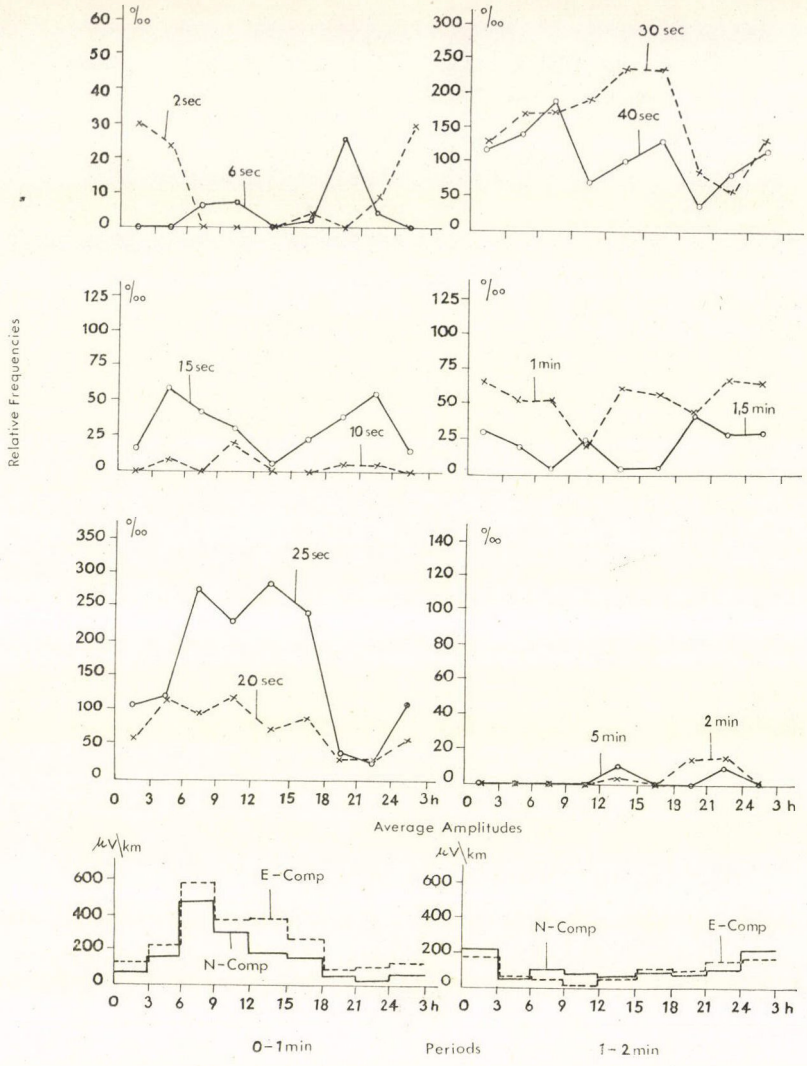

‰
Relative Frequencies
1 1,5 2 3 4 6 8 10 15 20 30 40 sec 1,5 2 3 5 8 10 min

Fig. 1d.


Relative Frequencies
‰
2 sec
6 sec
30 sec
40 sec
15 sec
10 sec
1 min
1,5 min
25 sec
20 sec
5 min
2 min
Average Amplitudes
μV\km
E-Comp
N-Comp
0-1 min
Periods
1-2 min

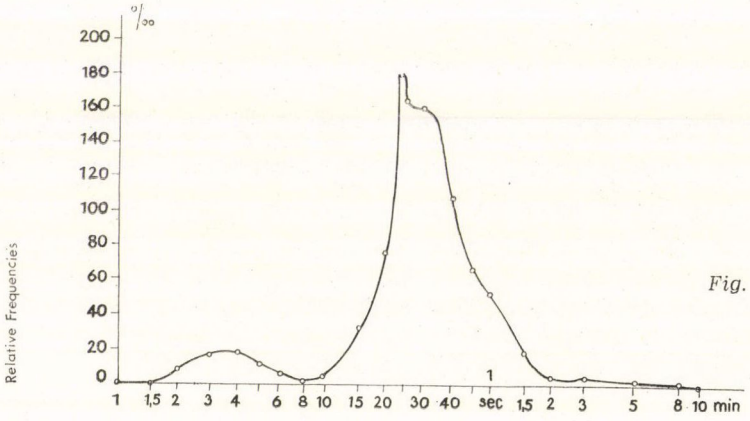
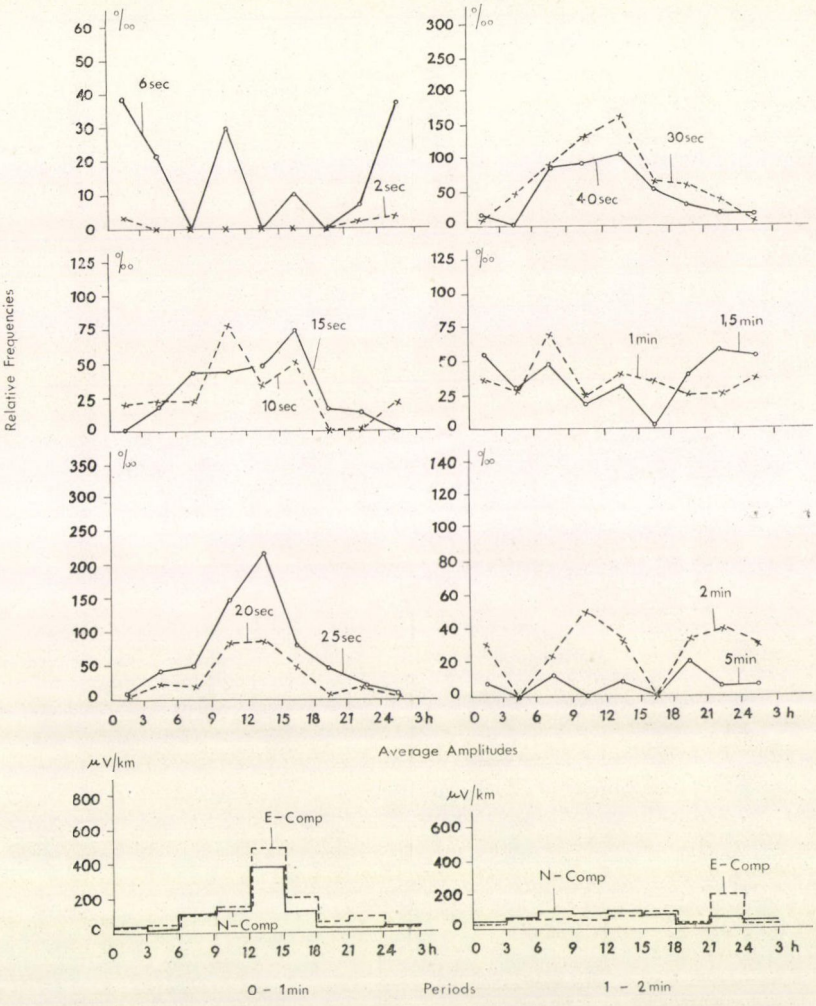

Relative Frequencies
‰
1
sec
min

Fig. 1e.


Relative Frequencies
‰
6 sec
2 sec
30 sec
40 sec
15 sec
10 sec
1 min
1,5 min
20 sec
25 sec
2 min
5 min
0 3 6 9 12 15 18 21 24 3 h
Average Amplitudes
μV/km
E-Comp
N-Comp
0 - 1 min
Periods
1 - 2 min

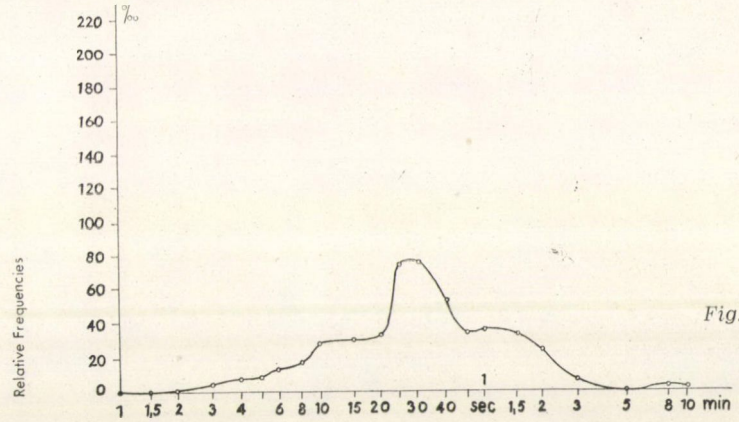

Relative Frequencies
‰
1 1,5 2 3 4 6 8 10 15 20 30 40 sec 1,5 2 3 5 8 10 min

Fig. 1f.

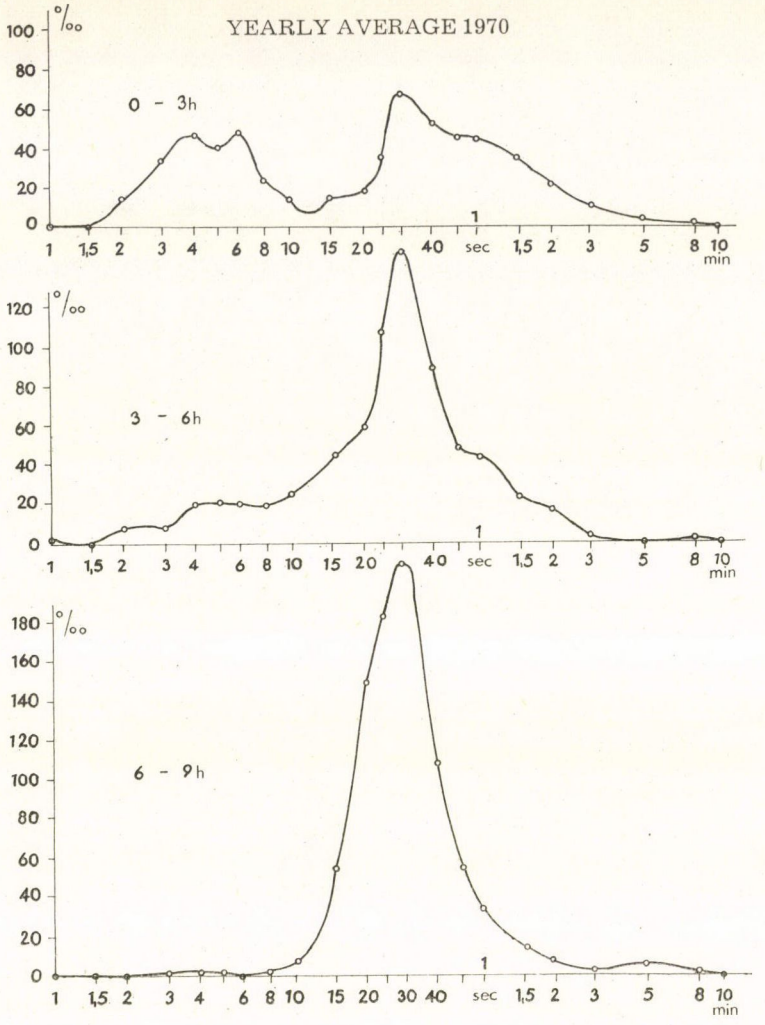

YEARLY AVERAGE 1970
‰
0 - 3h
3 - 6h
6 - 9h
9 - 12h
1
1 1,5 2 3 4 6 8 10 15 20 40 sec 1,5 2 3 5 8 10 min

Fig. 1g.

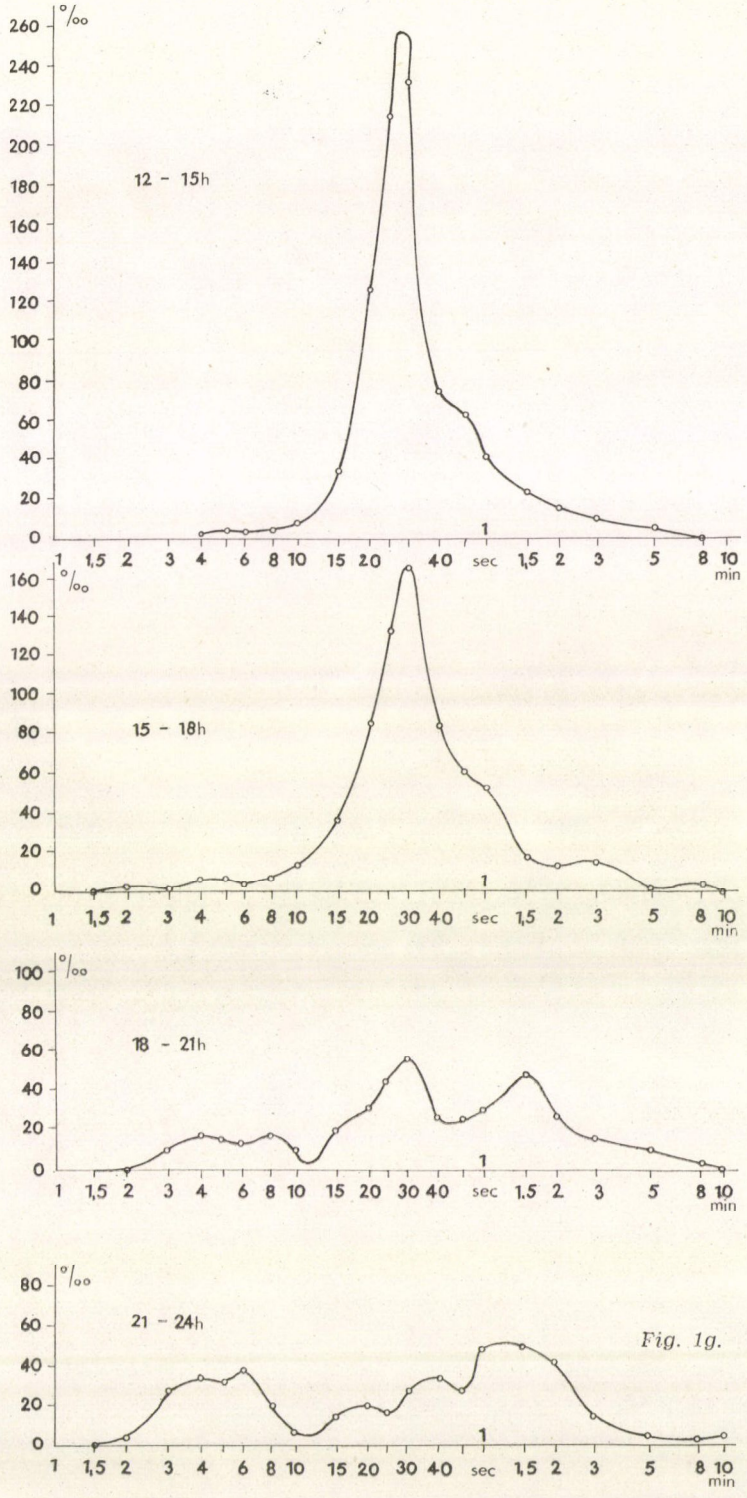

‰
12 - 15h
15 - 18h
18 - 21h
21 - 24h
1 1,5 2 3 4 6 8 10 15 20 40 sec 1,5 2 3 5 8 10 min
1 1,5 2 3 4 6 8 10 15 20 30 40 sec 1,5 2 3 5 8 10 min

Fig. 1g.

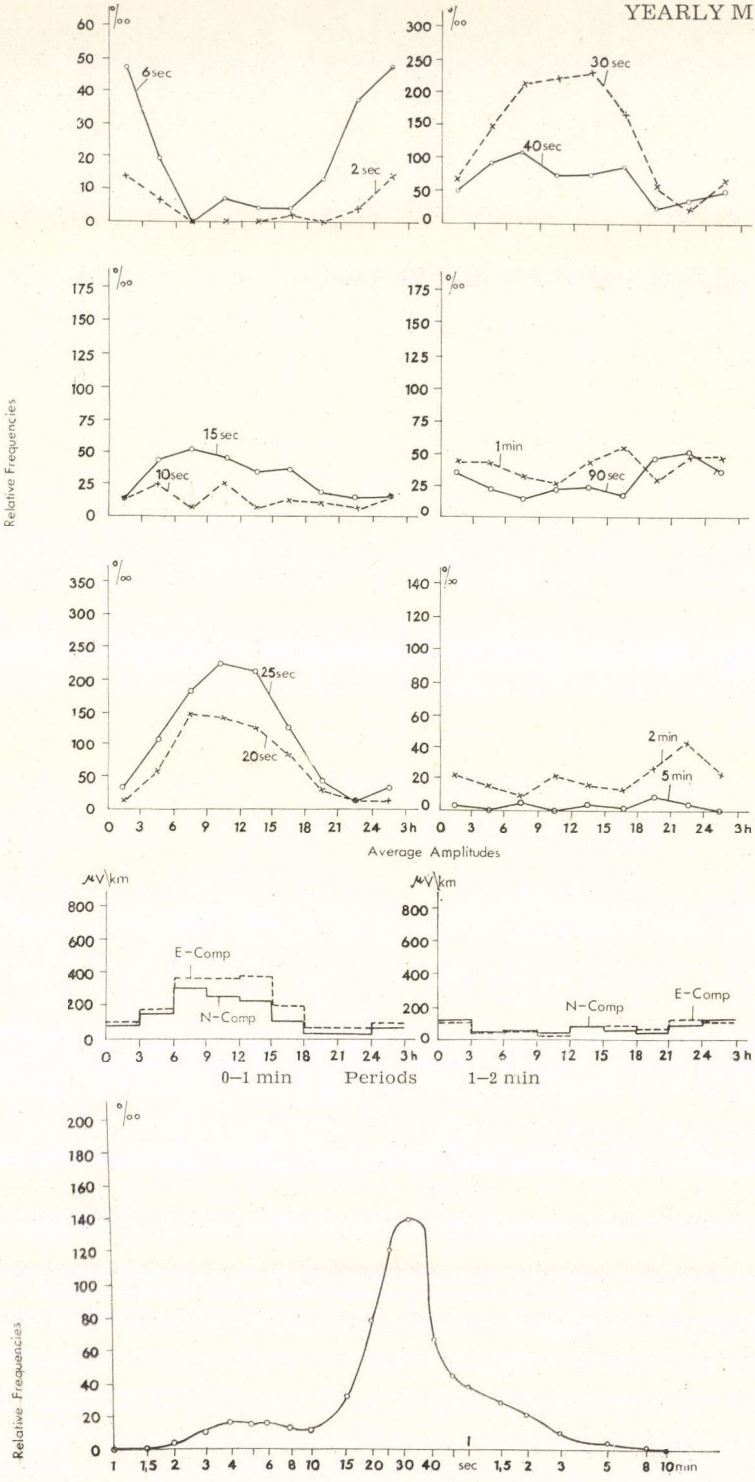


Fig. 1h.

Results of rapid-run records for the year 1970. The daily variations of the relative average occurence frequencies of some selected pulsation periods are represented on the top of the figures 1a—1f in two-month intervals, and of figure 1 h in the whole year; at the middle of these figures the daily variations of the amplitudes in the bands 0—1 and 1—2 min are drawn, at the bottom the approximate spectra for the same intervals. For the whole year, the spectra for each 3 hour interval of the day is given at fig. 1g.