

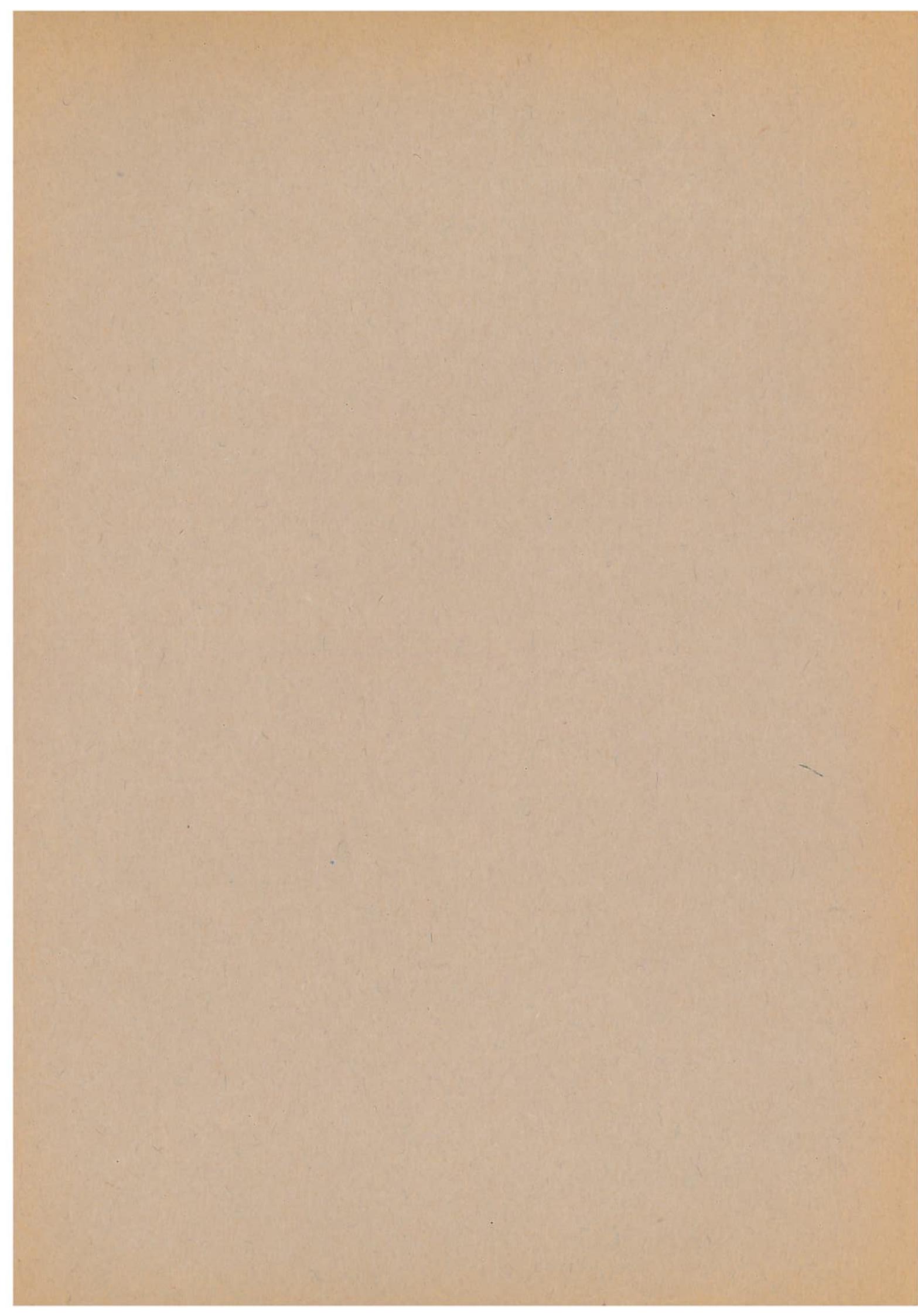
Publikasjoner fra  
DET NORSKE INSTITUTT FOR KOSMISK FYSIKK  
Nr. 40

THE AURORAL OBSERVATORY AT TROMSØ  
( $\varphi = 69^\circ 39'.8$  N,  $\lambda = 18^\circ 56'.9$  E. Gr.)

OBSERVATIONS 1955

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1957  
A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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## Report for 1955 Regarding the Spectroscopy of the Upper Atmospheric Luminescence

During 1955 we have mainly dealt with spectrograms obtained at the Auroral Observatory by means of the two big Glass Spectrographs built by Société Générale d'Optique in Paris.

An extensive paper by L. Vegard: «Composition, Variations and Excitations of the Auroral «Luminiscence» was communicated to the Norwegian Academy at Oslo to be published in Geofysiske Publikasjoner. This paper mainly deals with results of spectrograms from the two winters 1951/52 and 1952/53.

Auroral spectrograms from the winters 1953/54 and 1954/55, mainly from Tromsø, have been partly worked out for publication.

In the meeting of the Mixed Commission on the Ionosphere held in London in August 1955, Vegard presented a paper: «Phenomena caused by Solar X-rays and Properties of the Solar Electric Ray Bundles producing the Aurora».

*L. Vegard.*

## OZONE OBSERVATIONS

The table of ozone values of Tromsø covers 9 months and that of Longyear Svalbard ( $78.2^{\circ}$  N) only 7 months.

Sky-observations are possible at Tromsø the whole year and at Longyear say 10 months but the evaluation of values during the polar night period is too doubtful to be trusted in.

All observations were taken with Dobson Spectrophotometers, at Tromsø by Søren H. H. Larsen and Steinar Berger and at Longyear by H. Welde.

Unit 0.001 cm.

M: diurnal mean. N: number of observations. R: diurnal range.

Day	Feb.			Mar.			Apr.			May			Jun.			Jul.			Aug.			Sep.			Oct.					
	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.			
1.	342	3	11	303	2	1	348	3	5	298	1	5	246	3	7	249	2	2	251	1	212	1	196	2	12					
2.	332	3	21	286	3	13	316	1	297	2	8	244	4	5	247	2	4	240	1	212	1	—	—	—						
3.	337	1	—	295	3	6	330	1	289	2	11	244	2	0	246	1	3	230	1	210	2	4	210	1	5					
4.	322	2	29	276	2	6	305	3	10	290	3	8	258	3	1	250	3	3	249	1	209	1	196	2	5					
5.	—	—	—	298	2	14	308	2	15	292	3	17	283	1	—	259	3	8	224	2	11	205	2	1	172	2	2			
6.	—	—	—	—	—	—	290	2	0	311	2	6	301	3	12	240	3	4	215	2	5	210	2	0	171	1				
7.	321	3	13	320	2	2	—	—	—	330	2	1	275	2	9	228	3	5	234	1	—	221	2	1	181	1				
8.	348	1	—	305	4	9	297	1	—	318	2	3	278	1	—	244	2	11	208	2	0	193	3	7	178	1				
9.	—	—	—	272	3	2	256	2	5	302	3	8	281	2	1	233	2	8	198	1	—	187	3	2	184	1				
10.	—	—	—	304	3	17	277	1	—	305	3	16	269	2	8	220	1	—	214	2	1	184	3	2	178	1				
11.	342	3	4	268	2	0	264	1	—	319	3	37	277	2	1	209	3	4	205	2	14	197	1	—	168	1				
12.	334	1	—	308	2	5	277	3	4	295	3	8	280	2	10	218	2	11	198	1	—	198	2	13	164	1				
13.	—	—	—	367	1	—	296	2	12	299	3	12	281	1	—	227	2	10	203	2	1	206	2	0	154	1				
14.	315	3	26	352	2	6	300	3	13	307	2	8	296	2	25	225	2	6	208	1	—	203	3	3	196	1				
15.	342	3	14	314	3	2	292	3	25	280	1	—	273	3	14	228	1	—	203	1	—	197	3	13	204	1				
16.	358	1	—	321	3	8	350	1	—	287	3	9	265	1	—	239	2	6	234	1	—	186	3	10	187	1				
17.	—	—	—	363	1	10	357	4	10	280	1	—	298	2	8	272	2	3	265	1	—	208	1	6	208	1				
18.	—	—	—	353	2	0	348	2	1	261	3	17	305	3	12	268	2	0	252	2	3	200	2	4	205	1				
19.	—	—	—	340	2	5	324	2	18	280	3	17	284	2	0	278	1	—	236	2	0	205	2	16	198	2	8			
20.	—	—	—	—	—	—	317	3	31	274	2	7	277	2	0	247	2	7	201	1	—	203	2	2	150	1				
21.	—	—	—	329	2	2	311	2	3	328	2	8	290	2	13	265	1	—	218	2	2	214	1	—	185	3	3			
22.	—	—	—	337	2	9	346	2	6	318	3	8	277	1	—	244	2	4	207	2	1	207	2	9	187	1	—			
23.	—	—	—	305	3	12	357	3	5	307	3	3	287	2	0	255	3	3	225	1	—	211	1	—	187	1	—			
24.	—	—	—	301	3	3	347	2	2	—	278	3	3	260	2	5	213	1	—	200	2	13	177	3	4	168	1			
25.	—	—	—	319	3	14	345	2	4	284	1	—	283	3	1	267	2	4	216	1	—	220	2	11	186	1				
26.	—	—	—	334	2	3	347	2	7	328	2	14	262	1	16	—	191	3	2	205	1	—	185	2	2	167	1			
27.	—	—	—	352	1	—	338	1	—	335	3	1	263	2	—	260	2	4	209	2	9	204	2	8	178	1				
28.	—	—	—	322	3	9	305	3	4	349	3	8	277	1	—	247	4	11	196	1	—	241	1	—	197	2	12	215	1	
29.	—	—	—	305	2	14	350	3	3	259	1	—	247	4	15	219	1	—	216	2	13	210	1	—	218	2	5	225	1	
30.	—	—	—	347	2	1	303	2	8	254	1	—	240	4	10	219	1	—	216	1	—	187	2	2	225	1		212	1	
31.	—	—	—	340	3	4	—	—	—	237	2	6	—	229	1	—	213	1	—	213	1	—	215	1	—	184	1			
Mean .....	333		321			305			289			267			229			215			197			184						

LONGYEAR, SVALBARD.

## TABLE OF OZONE VALUES 1955

Unit 0.001 cm.

M: diurnal mean. N: number of observations. R: diurnal range.

Day	Mar.			Apr.			May			Jun.			Jul.			Aug.			Sep.			
	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	M.	N.	R.	
1.....	—	—	1	290	1	—	285	2	2	235	2	3	267	2	13	194	2	13				
2.....	—	292	1	288	2	2	268	2	2	238	1	—	253	2	23	212	2	3				
3.....	—	303	1	285	2	5	285	2	8	248	2	3	230	2	14	232	2	4				
4.....	—	268	1	311	2	1	284	2	2	243	2	1	228	2	3	216	1	—				
5.....	—	277	1	305	2	3	287	1	—	233	2	1	228	2	1	204	2	13				
6.....	—	252	1	309	2	9	265	2	8	232	2	6	218	2	4	203	1	—				
7.....	—	250	1	304	2	4	250	2	4	246	2	5	224	2	7	220	2	3				
8.....	—	242	1	306	2	1	248	1	—	243	1	—	223	2	7	220	2	1				
9.....	—	251	1	305	2	1	246	2	3	252	1	—	190	2	4	206	2	2				
10.....	—	242	1	300	2	3	—	—	—	237	2	3	216	2	9	193	2	11				
11.....	—	253	1	279	2	4	242	1	—	242	1	—	214	2	13	199	2	18				
12.....	—	277	1	—	—	—	233	2	1	250	2	8	207	2	1	200	2	11				
13.....	—	279	1	—	—	—	265	2	4	246	2	6	202	2	10	198	2	2				
14.....	—	327	1	291	2	2	268	1	—	224	1	—	193	1	—	195	2	0				
15.....	—	323	1	284	2	3	277	1	—	237	2	1	192	1	—	201	2	13				
16.....	—	326	1	291	2	4	276	2	4	237	2	0	209	2	4	199	2	7				
17.....	—	297	1	—	—	—	269	1	—	244	2	1	203	2	2	193	2	1				
18.....	282	1	262	1	292	2	7	274	2	2	242	2	1	185	1	—	204	1	—			
19.....	184	1	316	1	278	1	—	269	2	9	—	—	—	196	2	4	205	2	3			
20.....	307	1	312	1	271	2	3	270	2	4	215	2	8	210	2	4	215	2	9			
21.....	—	318	1	277	2	3	273	2	12	237	2	2	215	2	6	195	2	20				
22.....	—	310	1	278	1	—	258	2	9	214	2	7	232	2	9	169	2	3				
23.....	—	317	1	270	2	1	262	1	—	233	1	—	239	2	8	184	2	1				
24.....	277	1	306	1	295	2	6	249	2	2	247	2	3	218	2	3	196	2	9			
25.....	293	1	269	1	312	2	1	248	2	15	248	2	11	233	2	2	194	2	5			
26.....	300	1	284	1	268	2	2	252	2	5	218	2	0	222	2	9	195	2	9			
27.....	325	1	317	1	308	2	18	252	1	—	213	2	0	227	2	0	191	2	5			
28.....	—	323	2	3	280	2	7	251	2	11	215	2	9	228	2	11	193	1	—			
29.....	—	324	2	4	278	2	1	251	1	—	222	2	3	222	1	—	233	2	10			
30.....	—	318	2	8	244	2	2	240	2	5	215	2	1	214	2	9	231	2	24			
31.....	—	—	—	—	255	2	9	—	—	—	216	1	—	206	2	4	—	—	—			
Mean .....	—	—	291	—	288	—	—	262	—	—	234	—	—	218	—	—	203	—	—	—	—	—

## EARTH MAGNETISM 1955, TROMSØ

### GENERAL REMARKS

The instrumental equipment used for the magnetic measurements and registrations is the same as that previously used, a description of which is given in No. 1 and No. 33 of the present series of publications.

The observations were made by S. Berger and the calculation work by Anne Østvik.

### SCALE-VALUES

The following scale-values were determined:

D — curves:  $1'.50$  or  $4.88\gamma$  per mm.

H — curves:  $5.38 \gamma$  per mm.

V — curves:  $7.25 \gamma$  per mm.

### BASE-LINE VALUES

The determinations of the base-line values resulted in the table given below.

The quiet mean Inclination value for 1955 was calculated to  $77^\circ 34'.6$

The temperature coefficient for the H-variometer is  $8.7\gamma$ , and for the V-variometer  $\div 2.3\gamma$  per degree Celsius.

### OBSERVED AND ADOPTED BASE-LINE VALUES 1955

D			H			V		
Date	Observ.	Adopt.	Date.	Observ.	Adopt.	Date.	Observ.	Adopt.
I 16.	$1^\circ 33'.7$ W	$1^\circ 33'.7$ W	I 25.	$11229\gamma$	$11228\gamma$	II 9.	$50472\gamma$	$50475\gamma$
II 28.	33.6	.7	II 28	26	28	II 14.	72	75
III 15.	33.7	.7	III 1.	28	28	IV 22.	76	75
III 26.	33.9	.7	III 14.	28	28	IV 28.	75	75
IV 19.	34.1	.7	III 26.	27	28	VI 14.	75	75
IV 20.	33.9	.7	IV 15.	28	28	VI 30.	77	75
V 25.	33.5	.7	V 2.	29	28	VII 2.	75	75
VI 27.	33.6	.7	V 24.	28	28	VII 29.	74	75
VII 28.	33.3	.7	VI 11.	29	28	IX 12.	72	75
XI 14.	34.0	34.0	IV 28.	29	28			
XI 23.	33.9	.0	VIII 27.	28	28			
XI 29.	34.0	.0	VIII 29.	27	28			
			IX 20.	28	28			
			X 25.	29	28			
			XI 12.	26	28			
			XI 29.	29	28			

### EXPLANATION OF THE TABLES

For each of the components  $D$ ,  $H$  and  $V$  two series of tables are given. One series gives, in the usual way, the hourly mean values centered at half hours Gr. M. T. In these tables the column headed  $M$  gives the ordinary diurnal means.  $R$  designates the range, i. e. the difference between the maximum and minimum value measured on the magnetogram. The horizontal line marked  $M$  gives the monthly means of the hourly values, and the line marked  $QM$  gives the monthly means of the *quiet* hourly values.

The second series of tables gives the hourly values of the Storminess («average perturbing force» or «activity»). As to the definition of the storminess and the method for separating it, we refer to No. 2 and 4 in the present series of publications. In the storminess tables the column headed  $M$  gives the diurnal means. The columns headed  $PS$ ,  $NS$  and  $AS$  give the diurnal sum of the positive, negative and absolute storminess respectively. The column headed  $CH$  gives the magnetic character numbers. We consider the diurnal sum of the absolute storminess as the best expression for the magnetic activity during a day, and we will use that quantity for defining the character numbers. Only the strongest perturbed component, the Horizontal Intensity, is used in characterisation. Character number 0 comprises diurnal sum of absolute storminess ( $AS$ ) up to  $400\gamma$ , character number 1 from  $400\gamma$  to  $1200\gamma$  and character number 2 greater than  $1200\gamma$ . The horizontal line marked  $M$  contains the monthly means of the hourly values, and the two lines marked  $MPS$  and  $MNS$  give the monthly means of the positive and negative storminess respectively.

In  $D$  the storminess is reckoned positive towards magnetic west, in  $H$  positive towards magnetic north, and in  $V$  positive downwards.

In addition to the main tables, resuming tables, figures and vector diagrams are given at the end of the year-book.

### EARTH MAGNETISM 1955, BEAR ISLAND

$(\varphi = 74.5^\circ \text{ N.}, \lambda = 19.2^\circ \text{ E})$

Some measurements with  $QHM$  and  $BMZ$  were taken by S. Berger during an inspection period in june 1955. According to these measurements and the registrations we may give some approximate annual values for 1955.

$$D = 2^\circ 13' \text{ E. } H = 9175\gamma. \text{ V} = 52010\gamma.$$

For comparison we print the K-indices of Bear Island and Tromsø side by side.

## K-INDICES FOR THREE-HOUR INTERVAL 1955

## Tromsø

Range 2 000γ for K = 9. Scale values: D = 4.88γ. H = 5.38γ. V = 7.25γ.

Date	Jan.	Feb.	Mar.	Apr.	May.	Jun.
1	2000 0145	0000 0023	1000 0033	5333 4247	4211 1224	4411 3432
2	4110 1233	2000 1234	3100 0002	4333 4557	1002 3323	3012 4121
3	2001 1102	5211 0235	0100 1001	5322 4454	2101 0332	1211 1254
4	6101 2344	2312 3365	0000 0045	2223 3357	0001 3444	2113 3154
5	0000 0046	5220 3366	4212 2456	—3 5364	4211 4513	2101 2242
6	2310 1152	3212 3535	5412 2354	4423 3336	4224 5436	0001 3356
7	3210 1333	5432 4243	6432 2776	4533 3354	7433 3355	4412 2205
8	3000 0236	2122 1466	5132 3555	4210 1105	6634 5555	5633 6646
9	5232 5441	3222 1243	5223 5674	2220 2345	4222 2544	2223 3334
10	1000 0131	2221 1023	3443 4465	3003 4434	5413 1135	3101 1322
11	3200 5147	0000 2566	4233 4444	4321 3222	1101 1133	2103 3235
12	6310 0111	3332 2356	5533 3455	5513 3245	1112 1146	4233 3134
13	3112 3234	6302 2451	4121 3465	5521 2335	4212 2453	4122 5424
14	1102 2352	2232 1545	5212 3466	2222 2103	4323 3353	4224 4443
15	0000 0000	5432 1000	4532 3144	1101 2211	2320 0223	5534 3346
16	2001 3334	0112 3254	4411 2465	1110 1032	6623 3120	6444 4332
17	1212 6656	4300 2024	4125 3412	0002 2110	1112 1104	3423 3345
18	7753 3655	1310 0035	2123 3564	0000 1210	4110 1201	2322 2232
19	6655 5576	3210 2124	4100 0243	1101 1000	0001 1111	5502 3221
20	6521 3356	0200 3352	2101 3125	1230 3224	0102 1110	1001 2431
21	6100 1255	5321 3353	5001 2056	1121 3253	0001 2201	4101 2100
22	4020 0023	5433 3344	2025 5653	3312 2253	0001 2110	4003 3244
23	5213 3465	4424 5765	1010 3377	0001 1000	0001 2100	5222 2365
24	2000 0324	5223 3263	6523 2222	2011 4556	0000 2122	6624 4333
25	2000 1031	4312 3434	1012 1464	5312 3357	1001 3356	4234 3342
26	0000 0000	4412 2222	1123 4312	6324 4265	5644 3433	2201 0234
27	0000 1455	0011 2134	1013 3334	5422 2576	4132 4565	3112 2222
28	5222 1224	5652 5412	3112 2005	6544 4355	5436 4255	4212 2014
29	3000 0146		4000 0001	6334 4476	4222 3323	4002 2142
30	2101 1245		2003 3257	5324 3246	1000 2333	4101 0120
31	2000 0115		7645 4467		3321 2124	
Date	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	2012 2112	2001 2344	4012 3473	5214 3154	3531 1364	3001 4656
2	3302 3365	3300 0035	4534 4344	3323 4573	1123 4332	5543 3000
3	4423 2234	5402 3336	4425 5154	4533 2422	1000 0023	0000 4454
4	3111 1011	5325 5766	6314 4566	2311 2034	5663 1356	3310 0001
5	1010 2102	3323 3366	6443 5354	4103 4677	5433 2223	1000 1226
6	2001 0333	6344 4657	5422 3355	4423 4443	3000 0033	4352 2156
7	6622 3333	5444 5264	5112 2201	4111 2244	3000 0000	5421 1102
8	2202 3453	4213 4334	0102 4424	3120 1113	0111 4545	2220 2355
9	1112 3104	5112 2123	4411 1213	2100 0236	6221 1223	5122 4331
10	4124 5545	0302 2234	1122 2322	5233 3432	3001 0234	1001 2342
11	4323 4324	2001 0020	2101 2225	0242 3431	3000 0344	1000 0114
12	6225 4455	2211 0031	5232 4426	0000 0011	0023 3553	1000 0332
13	5101 3423	1101 1125	6644 5443	0000 0042	2321 0233	1000 0100
14	3222 3310	4307 2466	1223 3313	2212 2123	2000 1343	0000 0001
15	1013 5565	4312 3100	2100 2152	0000 0005	1024 4456	2000 0235
16	5302 3244	0231 2001	4323 4405	5000 1103	5632 4455	3213 2331
17	2222 1014	1001 3355	4433 3144	2100 0000	4521 2234	0000 0223
18	1332 2221	3122 3232	3312 3343	0000 0000	2431 3775	0000 0001
19	2001 10000	-112 2244	4313 2325	0000 1001	3326 8745	0001 3444
20	0001 3332	2002 3321	6222 0034	1201 3333	7443 5665	4432 4434
21	3000 0236	4210 1243	1100 0142	0000 1235	5322 0010	4221 4344
22	0001 0005	0000 0012	5400 1133	2010 4333	0002 3100	2210 1120
23	521—	0000 1034	1022 2355	3101 2010	0002 1034	0000 0022
24	—3 2113	0002 2111	6101 2420	000 0004	1012 3344	0000 0315
25	2212 2124	0001 2232	2000 1004	6434 6776	4311 2323	4311 4563
26	4113 3355	2002 2312	1000 0012	7653 4565	3200 0024	0023 5667
27	4211 1143	2000 0213	3313 4666	3332 2356	4000 2013	5532 2344
28	1000 1124	-343 3121	4433 3365	2213 4413	3000 1246	1100 1343
29	2200 0255	2222 2246	4423 3765	1221 3476	3211 1144	0000 0022
30	2012 2113	2302 1203	6665 4666	1001 1453	0100 1131	1000 0203
31	3112 2220	3012 2135		5533 4576		1120 0344

## K-INDICES FOR THREE-HOUR INTERVAL 1955

## Bear Island

Range 2 000γ for K = 9. Scale values: D = 5.7γ. H = 6.1γ. V = 21.3γ.

Date	Jan.		Feb.		Mar.		Apr.		May.		Jun.	
1	3212	2353	2111	2244	1111	2344	4434	4336	4432	2334	3433	3532
2	2222	3334	3222	3246	4322	2322	3343	4446	2123	3324	3133	4343
3	1223	3211	5333	3234	1221	1111	3333	4353	3222	2332	3322	2343
4	5333	2445	2434	3265	11-1	2154	3344	4366	1112	4454	3334	3353
5	2211	2265	5343	3346	3432	3465	5343	4443	3422	4433	3223	4343
6	3422	3252	3434	4425	5323	4364	4534	3346	4444	4446	2224	3556
7	4332	3443	4543	4443	5554	3665	3544	4465	5544	4366	5523	3325
8	3222	3444	3334	2665	5332	4665	3332	4355	5645	4565	5544	5535
9	6354	4562	4433	2352	4444	43-	3332	2232	4432	3553	3334	3424
10	2222	2143	2333	2144	-4	6465	3113	4545	4434	3234	4212	2332
11	3412	5336	2122	3555	4444	4543	3433	3332	3312	2223	3314	4345
12	5422	1112	4443	3344	3544	3545	4434	4255	3233	3444	3444	4345
13	4434	4235	5534	3442	3332	3565	5532	3344	4223	3332	3334	6435
14	2313	3563	3343	3546	4333	3666	2333	3211	4434	3452	4336	4452
15	1111	1112	5453	2111	5544	4255	2222	2321	3432	2333	3544	3434
16	2222	3465	1223	3364	4532	3555	2218	3253	6533	3333	4455	4433
17	3434	6544	4423	3232	4344	4422	2214	4321	332-	—	3434	4435
18	6653	3665	2432	1853	2234	4653	1112	3331	—	—12	3443	3433
19	5535	5755	3332	3244	3322	2355	2222	2211	2122	3242	5523	3232
20	5533	3363	2423	3352	3323	3246	3332	3342	2323	3222	2223	3422
21	5322	2235	5443	3453	6232	3265	2333	4332	2111	4311	4322	3322
22	4342	2222	3544	2353	3124	5653	3433	2253	2112	3231	3123	4454
23	4334	3465	4454	4663	2222	4456	1212	2212	1112	2221	4333	2354
24	3222	2434	4444	4334	5534	2432	2223	4555	2212	3343	5504	3443
25	2221	3332	3434	4335	2223	2463	5324	3354	3212	4355	3343	3353
26	2221	2121	4423	3343	2343	4312	5345	3355	4554	4433	3322	3333
27	1111	2455	1122	3252	2224	2332	5433	3565	4333	6665	3323	2322
28	5432	2234	4543	6331	2223	2214	4454	3354	4545	3344	4323	3323
29	3221	3266			4222	2213	5435	3666	4333	3424	3223	3343
30	3113	3335			2213	4466	4435	3354	3221	3442	3312	3331
31	2222	1335			6664	4666			4433	4423		
Date	Jul.		Aug.		Sep.		Oct.		Nov.		Dec.	
1	3223	2233	2122	3333	2223	3464	4333	3254	3542	2362	3223	4544
2	3413	3444	3311	2145	3544	4334	3333	4662	3334	5433	4333	3111
3	4543	2244	4423	4434	3435	4244	3434	3521	3222	2243	1112	5554
4	3322	2143	4434	4645	6434	3335	3333	3240	5553	1255	3322	1233
5	3221	3243	3334	3566	4353	4442	3324	4556	3433	2333	3211	2236
6	3222	1433	5455	5555	2533	3353	2433	3643	3221	2254	4553	2265
7	6533	4343	4354	4443	4323	3312	4233	3323	4221	2231	5533	2223
8	3423	4443	4224	4333	2124	3324	3332	2213	3332	4534	3332	3455
9	3224	3324	4243	3333	3322	2321	2321	2126	4433	3222	4333	5543
10	3234	5443	3433	3334	2223	3343	4344	4542	4222	1254	2323	2453
11	5434	4423	3313	2132	4323	3234	1333	5551	4221	3355	3221	2334
12	6345	5444	3323	2243	4434	4335	1111	1123	2233	3652	3221	2343
13	4222	4344	3323	2233	6554	4433	2112	1343	2433	2352	2111	1222
14	3243	3422	4323	3344	2333	3234	3233	3232	3121	2354	1111	1123
15	2124	5465	3433	4222	3322	3353	1212	11-3	2345	4454	3212	1254
16	4423	4435	3332	3222	4334	3324	5221	2213	2345	4454	3334	3332
17	3342	2234	2222	3454	4544	4254	2321	1111	3532	3323	2212	1223
18	3444	2234	3334	3334	3433	3431	1111	1112	2432	-655	2211	1111
19	2322	3332	3334	3355	4323	3324	1111	1113	3334	5644	1113	4553
20	2122	2443	2123	3332	5322	1243	2322	4354	6433	5555	3332	4332
21	1132	3522	4332	2244	2211	1144	1213	2335	4333	1131	2323	4324
22	22-	3225	2111	2234	5221	3243	3223	4442	1123	3221	3321	3231
23	4323	3345	2112	2233	2223	3444	3323	1111	1213	1145	3221	1233
24	5423	3222	2223	3321	5312	3452	1233	1112	2123	3352	2212	2335
25	3322	2-	2112	2343	3311	2213	5455	5564	4433	3524	5443	4463
26	3333	3355	2322	3323	2111	1112	6654	5665	3323	2144	2233	-6
27	4322	3233	3212	2232	4424	4565	4343	3555	4113	3324	3533	3535
28	3122	3232	1553	3333	3554	3354	2333	4325	2223	3236	2233	3453
29	4432	2244	3233	3345	4400	3454	2423	4355	3433	2254	2212	1133
30	1223	3234	2423	2212	4464	4555	2223	3653	2322	2353	3222	3343
31	3323	3222	3222	3435			4544	5465			2343	2343

## DAILY SUM OF K-INDICES 1955

Tr. means Tromsø, B.I. means Bear Island.

Date	Jan.		Feb.		Mar.		Apr.		May		Jun.		Jul.		Aug.		Sep.		Oct.		Nov.		Dec.		
	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	Tr.	B.I.	
1	12	21	5	17	7	17	31	17	25	22	26	11	20	16	19	24	26	25	27	26	27	25	27	25	27
2	15	21	12	24	6	20	34	14	20	14	24	25	26	14	20	31	30	30	30	19	28	20	19	19	
3	7	15	19	26	3	10	29	27	12	19	17	22	24	28	26	28	30	29	25	25	6	20	17	24	
4	21	29	25	29	9	—	27	33	16	22	20	27	9	20	39	34	33	31	16	24	35	31	8	19	
5	10	21	27	31	26	30	30	21	30	21	25	14	24	7	20	29	33	34	27	32	24	24	12	20	
6	15	24	24	29	26	30	28	32	29	34	18	29	12	20	39	39	29	29	28	28	9	21	28	32	
7	16	26	27	31	37	39	30	35	33	37	20	28	28	31	34	31	14	21	19	23	3	17	16	25	
8	14	24	24	32	29	34	22	28	39	40	39	36	21	27	24	25	17	21	12	19	21	27	21	28	
9	26	35	19	26	34	—	12	23	25	29	22	26	13	23	17	25	17	18	14	19	19	23	21	30	
10	6	18	13	22	33	25	21	26	23	27	13	19	30	28	16	26	15	22	25	30	13	22	13	24	
11	22	27	19	25	28	31	19	24	11	18	19	27	25	29	5	18	15	24	19	26	14	25	7	20	
12	13	18	27	29	33	33	28	31	17	26	23	29	33	35	10	22	28	30	2	11	21	26	9	21	
13	19	29	23	30	26	30	26	29	23	22	24	31	19	25	12	21	36	34	6	17	16	24	2	12	
14	16	26	24	32	29	34	14	18	26	29	27	31	16	23	27	26	18	23	15	21	13	21	1	11	
15	0	9	15	22	26	34	9	16	14	23	33	30	26	29	14	23	13	24	5	—	26	31	12	20	
16	16	26	18	24	27	22	9	20	23	29	30	32	23	29	9	20	25	26	10	18	34	33	18	24	
17	29	33	15	23	22	27	6	19	11	—	27	30	14	23	18	24	26	32	3	12	23	24	7	15	
18	41	40	13	21	26	29	4	15	10	—	18	27	16	28	16	26	22	24	0	9	32	28	1	10	
19	45	40	15	24	14	23	4	14	5	18	20	25	4	20	—	29	23	24	2	10	38	32	16	23	
20	31	31	15	24	15	26	17	23	6	19	12	20	12	20	13	19	19	22	16	25	40	36	28	23	
21	20	24	25	31	19	29	18	23	6	14	9	21	14	19	17	24	9	16	11	20	13	19	24	23	
22	11	21	29	29	28	29	21	25	5	15	20	26	6	—	3	16	17	22	16	24	6	15	9	18	
23	29	37	36	22	27	2	13	4	12	27	27	—	27	8	16	20	24	8	15	10	18	4	17	23	
24	11	22	26	31	24	28	7	20	31	—	23	7	18	16	25	4	14	18	21	9	20	9	20	23	
25	7	18	24	29	19	25	29	29	19	25	25	27	16	—	10	18	7	16	43	39	19	28	33	33	
26	0	13	19	26	17	22	32	33	32	32	14	22	25	28	12	20	4	10	41	43	11	22	29	—	
27	15	29	12	18	18	20	33	34	30	36	15	20	17	22	8	17	32	34	27	32	10	21	28	30	
28	20	25	30	29	14	18	36	32	34	32	16	23	9	18	—	26	31	32	20	25	16	23	13	25	
29	14	25	5	18	37	38	21	26	15	23	16	25	22	26	34	30	24	28	17	26	4	15	6	22	
30	16	24	22	28	31	12	21	9	19	12	20	13	18	45	37	15	26	7	22	6	22	6	22	15	
31	9	20	43	44	18	27	13	20	17	24	18	27	13	20	17	24	38	37	38	37	38	37	15	24	

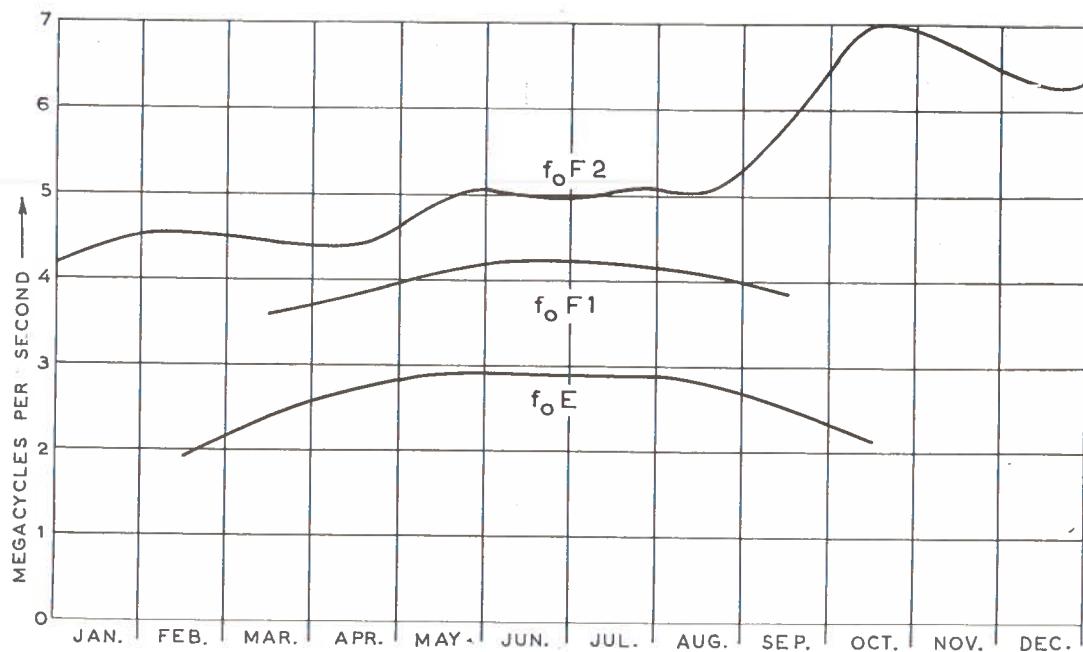
## MONTHLY AND ANNUAL MEAN VALUES OF THE MAGNETIC ELEMENTS 1955

## Tromsø

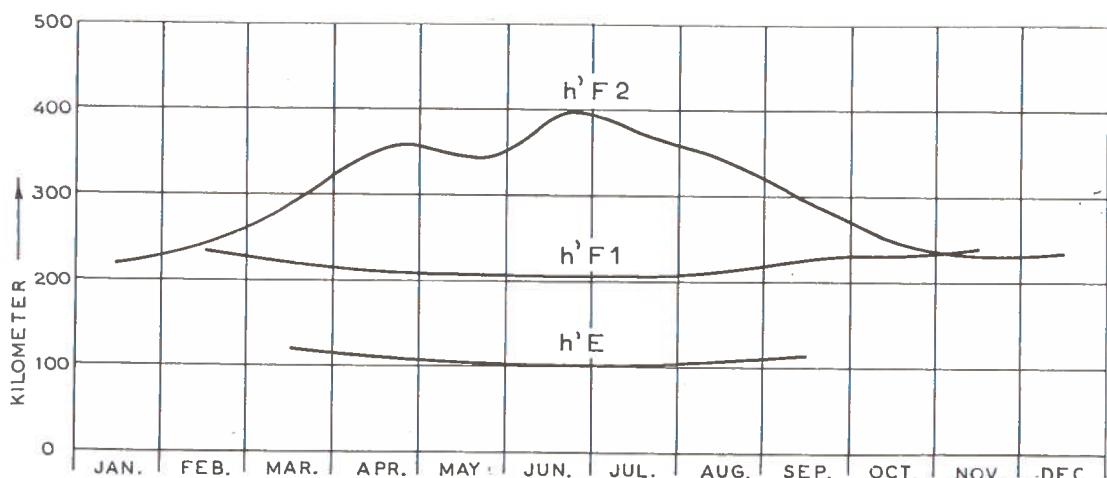
Month	All days			Five Quiet			Five Disturbed		
	D	H	V	D	H	V	D	H	V
Jan.	0°W + 26'.1	11100γ + 69	50600γ + 151	0° W + 27'.6	11100γ + 85	50600γ + 162	0° W + 19'.9	11100γ + 24	50600γ + 157
Feb.	25.5	70	162	26.6	85	162	24.3	45	162
Mar.	25.5	61	165	26.2	79	162	26.3	44	150
Apr.	25.2	62	173	26.2	87	172	—	—	—
May	25.0	71	183	26.2	89	153	22.6	72	196
Jun.	25.0	83	179	24.8	83	176	22.1	62	167
Jul.	24.6	83	177	24.6	82	172	24.6	81	188
Aug.	24.6	82	180	25.0	91	174	—	—	—
Sep.	23.1	63	180	23.6	78	178	22.0	37	144
Oct.	21.9	72	188	22.5	85	185	17.9	25	177
Nov.	20.6	68	194	21.2	78	194	17.8	27	172
Dec.	21.3	80	191	21.5	88	191	19.0	60	186
Year	24'.0	72	176	24'.3	84	174	21'.7	48	170

## ANNUAL MEANS OF THE MAGNETIC ELEMENTS 1930—1955

Year	D	H.	V.
1930	4° 7'.7 W.	115 67γ	—
31	3° 59.6	49	501 98γ
32	49.0	114 99	95
33	37.3	72	502 03
34	25.9	41	23
35	14.3	07	47
36	4.8	113 79	76
37	2° 53.7	50	503 08
38	44.1	25	40
39	35.0	112 97	62
40	26.6	78	81
41	16.6	56	504 17
42	10.6	44	24
43	2.5	22	49
44	1° 54.3	13	67
45	45.7	111 99	505 03
46	34.6	79	54
47	26.5	74	85
48	18.4	56	94
49	10.5	53	506 12
50	3.6	52	29
51	0° 54.1	43	93
52	43.9	44	507 11
53	36.0	53	24
54	29.1	65	44
1955	24.0	72	76



MONTHLY MEDIAN NOON-VALUES (12<sup>h</sup>MET) FOR THE CRITICAL FREQUENCIES AND THE VIRTUEL HEIGHTS FOR THE E-LAYER, F1-LAYER AND F2-LAYER.



RADIO ECHO OBSERVATIONS.

GENERAL REMARKS.

The instrumental equipment used for the measurements is the Mark II NPL-recorder described in the Proc. I E E, Vol. 98, Part III, p. 11, 1951.

Assistant REIDLUF LARSEN was responsible for the maintenance and processing of the films. The reading of the hourly values and the calculation work has been performed by Mr. SIGBJØRN SKRIBELAND, head of the Radio Wave Propagation Bureau of the Norwegian Defence Research Establishment at Kjeller.

#### EXPLANATION OF TABLES.

Monthly median values are given for the following quantities for each hour MET:  $f_{0E}$ ,  $f_{0FL}$ ,  $f_{0F2}$  (critical penetration frequencies for the E-, F1- and F2-layers),  $h'E$ ,  $h'F1$ ,  $h'F2$  (virtual heights for the E-, F1- and F2-layers) and ( $M3000$ ) F2-factor.

The interpretation and symbols are in conformity with the CCIR and URSI recommendations.

Critical Frequency for the F1- layer, foF1. Quantities Expressed in Mc/s.  
MONTHLY MEDIAN VALUES FOR EACH HOUR MET

**MONTHLY MEDIAN VALUES FOR EACH HOUR MET**

Critical Frequency for the P2- layer,  $f_{0P2}$ . Quantities Expressed in Mc/s.  
MONTHLY MEDIAN FOR EACH HOUR MET

HOUR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
0	-	-	-	-	(4.65)	4.50	4.45	4.00	(3.20)	(2.85)	(2.20)	(2.90)	
1	(2.40)	-	-	-	(4.50)	4.50	4.20	3.70	(2.80)	(2.70)	(3.95)	3.10	
2	(2.40)	-	-	-	(4.40)	4.30	4.50	3.70	(3.10)	2.70	(3.55)	3.20	
3	2.45	(1.95)	-	-	-	4.25	4.30	4.40	5.40	(2.65)	3.00	3.70	3.10
4	2.15	(1.70)	-	-	-	4.35	4.45	4.50	3.75	(2.80)	2.75	3.20	2.80
5	2.05	-	-	-	-	4.60	4.55	4.50	4.00	3.20	2.50	2.95	2.70
6	1.50	(1.55)	-	-	-	4.90	4.50	4.60	4.40	3.80	3.45	2.65	2.50
7	1.55	2.20	3.35	3.90	4.80	4.80	4.75	4.70	4.50	4.50	2.70	2.25	
8	1.88	3.20	3.80	4.15	5.10	4.85	4.90	4.80	5.05	5.20	3.20	2.40	
9	2.70	3.70	4.15	4.25	5.15	4.85	4.90	5.00	5.05	5.60	4.60	3.55	
10	3.70	4.25	4.30	4.45	5.10	5.20	5.10	5.10	5.40	6.30	5.70	4.70	
11	4.35	4.45	4.45	4.50	4.95	5.00	5.00	5.20	5.70	6.80	6.60	5.85	
12	4.40	4.55	4.45	4.40	4.95	5.00	5.05	5.05	5.80	7.00	6.75	6.30	
13	4.20	4.60	4.35	4.40	5.00	4.90	4.90	5.00	5.50	6.70	6.40	6.10	
14	3.27	4.55	4.30	4.30	4.80	4.90	4.90	5.00	5.30	6.40	5.70	5.50	
15	3.20	4.15	4.25	4.30	4.80	4.70	4.90	4.95	5.05	5.60	5.50	4.80	
16	2.20	3.45	4.05	4.35	4.75	4.70	4.75	4.85	4.80	5.10	4.60	3.65	
17	2.13	2.80	3.75	4.25	5.10	4.75	4.75	4.75	4.80	5.50	3.65	2.55	
18	-	2.60	3.50	4.00	5.10	4.65	4.80	4.85	4.70	5.15	(3.20)	2.10	
19	-	(2.45)	(5.15)	3.95	4.90	4.70	4.75	4.70	4.40	4.40	(2.25)	2.55	
20	-	(1.90)	(2.85)	3.70	4.70	4.60	4.60	4.60	(4.00)	4.50	(2.20)	(2.00)	
21	-	-	(2.60)	(3.95)	4.50	4.50	4.50	4.80	(3.95)	3.95	-	-	
22	-	-	(2.55)	(3.70)	4.45	4.25	4.50	4.40	(3.50)	(3.50)	-	-	

Virtual Height for the E-layer,  $h_{\text{E}}$ . Quantities Expressed in Kilometers.

Virtual Height for the F1- layer,  $h'F_1$ . Quantities Expressed in Kilometers  
 MONTHLY MEDIAN VALUES FOR EACH HOUR MET

HOUR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0				-	-	-	-	-	-	-	-	-
1				-	280	250						
2				-	250	245						
3				240	240	240						
4				-	230	225	240	250	-			
5			-	-	225	210	220	245	-			
6			-	-	230	210	210	225	255			
7		-	240	240	220	210	205	225	245	-		
8	-	230	215	210	205	205	210	240	240			
9	-	220	220	210	205	210	210	255	240			
10	240	220	215	205	210	200	215	220	235	-		
11	230	215	210	213	200	200	205	220	240	-		
12	-	235	220	210	205	205	205	210	225	230	240	-
13	-	220	215	210	205	210	200	205	225	240	-	-
14	-	230	225	210	205	200	200	205	225	240	-	-
15	-	230	220	205	205	205	210	240	-			
16	-	235	235	220	210	205	205	220	245			
17	235	230	240	215	220	205	235	245				
18	-	-	245	225	225	215	215	240	-			
19	-	-	235	235	235	245						
20	-	-	245	240	245	-						
21	-	-	250	245	250	-						
22	-	-	-	-	-	255						
23	-	-	-	-	-	-						

Virtual Height for the F2- layer,  $h^*F2$ . Quantities Expressed in Kilometers.  
MONTHLY MEDIAN VALUES FOR EACH HOUR MET

M3000 F2-layer Transmission Factor.  
MONTHLY MEDIAN VALUES FOR EACH HOUR MET

HOUR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
0	-	-	-	-	(260)	315	(280)	(280)	-	-	-	-	
1	-	-	-	-	-	320	(275)	(260)	-	(295)	-	-	
2	-	-	-	-	(280)	340	300	(290)	-	(305)	-	(310)	
3	-	-	-	-	(305)	350	330	(280)	-	300	295	300	
4	(280)	-	-	-	(310)	360	350	(275)	(295)	295	295	285	
5	(285)	-	-	-	(305)	355	375	(450)	290	280	275	280	
6	(260)	-	-	-	330	375	360	(395)	(265)	265	255	260	
7	(260)	(290)	-	-	(455)	345	395	375	360	-	250	255	255
8	255	250	(255)	(390)	360	375	380	370	(300)	240	250	250	
9	240	245	-	390	350	400	375	350	(330)	240	245	245	
10	235	240	-	380	355	380	365	335	315	245	240	240	
11	220	240	(295)	350	350	385	380	330	305	245	235	240	
12	220	240	290	350	345	390	375	345	295	245	230	235	
13	215	240	230	350	330	395	390	350	390	240	225	235	
14	215	240	(260)	350	340	375	380	355	-	240	240	240	
15	220	240	(255)	(315)	345	370	370	340	-	240	235	220	
16	235	240	250	(300)	310	365	355	(295)	250	235	235	235	
17	(235)	245	245	(285)	(300)	345	340	-	250	240	240	(240)	
18	-	(250)	245	(265)	(290)	340	315	(250)	250	245	(250)	-	
19	-	(270)	(240)	(255)	(270)	320	(340)	255	250	250	-	-	
20	-	-	-	(250)	(260)	300	-	255	(250)	(245)	-	-	
21	-	-	-	-	270	295	(255)	270	-	(250)	-	-	
22	-	-	-	-	-	275	(290)	(290)	(260)	-	(290)	-	-
23	-	-	-	-	-	(270)	-	(290)	(275)	-	-	-	-

HOUR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
0	-	-	-	-	(3.00)	2.95	3.10	2.85	(2.70)	(2.70)	-	-
1	(2.90)	-	-	-	(3.00)	2.90	2.90	2.90	(2.70)	2.80	(2.85)	2.70
2	(2.95)	-	-	-	(2.90)	2.90	3.00	2.90	(2.70)	2.70	(2.70)	2.70
3	3.00	-	-	-	3.05	2.90	2.90	2.95	2.90	2.75	2.60	2.70
4	3.10	-	-	-	3.10	2.90	2.95	(3.00)	2.90	2.90	2.90	2.90
5	3.10	-	-	-	(3.10)	2.90	2.90	(2.70)	(3.10)	2.90	3.05	2.90
6	3.10	(3.10)	-	-	3.00	2.85	2.90	2.90	(3.10)	3.00	2.90	2.90
7	3.10	3.10	(3.10)	(2.95)	3.10	2.90	2.90	2.90	(3.20)	3.10	3.05	3.00
8	3.10	3.30	(3.35)	3.05	3.00	2.90	2.90	2.90	2.90	3.10	3.10	2.90
9	3.20	3.35	(3.30)	3.00	3.05	2.90	2.90	3.00	3.05	3.30	3.10	2.90
10	3.35	3.35	(3.15)	3.00	3.10	2.95	2.90	3.10	3.10	3.15	3.20	3.10
11	3.50	3.35	3.35	3.10	3.10	2.95	2.90	3.10	3.10	3.15	3.30	3.20
12	3.50	3.35	3.30	3.10	3.10	2.90	3.00	3.10	3.15	3.20	3.30	3.20
13	3.45	3.35	3.35	3.10	3.10	2.90	2.95	3.10	(3.10)	3.30	3.35	3.10
14	3.45	3.35	3.30	3.10	3.10	3.05	3.00	3.10	(3.10)	3.30	3.15	3.10
15	3.35	3.35	3.35	3.15	3.10	3.05	3.05	3.10	3.10	3.15	3.15	3.10
16	3.20	3.35	3.30	3.10	3.10	3.00	3.05	3.20	3.10	3.20	3.10	3.05
17	3.20	3.20	3.30	3.15	3.20	3.10	3.10	(3.10)	3.10	3.10	3.05	3.05
18	-	3.10	3.10	3.20	3.20	3.10	3.10	3.20	3.10	3.00	(3.10)	(3.00)
19	-	(3.05)	(3.10)	3.10	(3.20)	3.10	3.15	3.10	3.10	2.90	(3.05)	(3.05)
20	-	-	(3.05)	3.05	3.20	3.10	3.10	3.10	(3.00)	(2.95)	(2.90)	(2.90)
21	-	-	(3.05)	(3.05)	3.05	3.10	3.10	3.05	(2.90)	(2.90)	-	-
22	-	-	(3.00)	(3.00)	3.10	(3.10)	3.10	(2.90)	(2.85)	(2.85)	-	-
23	-	-	-	-	(3.05)	(3.05)	2.80	(2.90)	(2.85)	(2.80)	-	-

**Tromsø.** Declination. D = 0° W + Tabular Quantities expressed in Tenths of Minutes. Gr. M. T.  
JANUARY 1955

DAY	HOURLY MEAN VALUES																							M	R	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
1	255	261	261	255	267	277	283	298	301	313	329	301	286	283	301	313	316	316	322	287	299	313	286	200	289	526
2	200	292	271	298	283	277	283	263	292	301	313	307	301	307	313	316	286	301	298	371	316	267	240	289	449	
3	277	277	283	283	277	271	283	298	298	313	301	296	329	292	263	292	266	277	267	271	271	252	286	182		
4	185	169	77	206	255	283	298	298	292	302	313	316	316	301	255	338	313	261	231	246	245	240	252	283	261	646
5	261	271	267	271	271	263	283	286	298	301	292	292	292	286	286	286	298	286	297	277	271	266	271	255	108	283
6	344	267	277	231	191	225	267	292	301	301	301	301	307	301	298	286	298	286	132	210	225	252	237	267	766	
7	240	246	246	222	271	271	286	286	277	282	301	316	332	344	298	307	288	332	313	307	322	252	237	286	329	
8	246	206	246	267	271	267	271	261	261	283	283	286	286	292	307	332	301	301	252	316	347	271	216	277	599	
9	102	114	240	225	222	231	359	359	378	338	307	344	347	329	455	62	378	300	246	329	307	271	271	267	286	1095
10	267	267	277	277	271	271	277	283	286	286	292	283	283	286	277	286	301	277	271	266	271	271	260	210		
11	252	237	206	237	271	286	285	286	286	283	307	316	332	359	329	313	298	329	292	129	55	277	1890			
12	160	-114	210	252	267	267	271	271	283	283	286	277	271	277	283	283	283	283	277	271	261	252	1199			
13	255	240	148	240	261	283	292	301	301	298	292	267	277	286	286	286	286	283	179	271	237	252	264	526		
14	255	255	261	258	277	283	283	283	283	281	286	286	286	283	316	338	301	154	255	267	261	240	255	271	720	
15	261	267	271	277	277	277	283	283	277	277	271	271	271	271	271	271	271	271	271	271	271	255	255	271	46	
16	267	252	267	252	252	277	271	283	283	286	313	316	329	344	347	359	332	307	307	298	261	246	231	255	289	329
17	252	261	261	298	255	261	271	271	313	307	262	267	369	390	179	344	316	271	283	378	332	292	621	321	307	1562
18	37	-553	-615	-307	307	86	194	271	240	246	240	255	271	292	316	271	246	277	231	179	237	117	210	225	111	2251
19	179	-231	-160	-221	129	216	-6	37	68	86	393	298	191	298	283	271	286	132	-9	430	68	176	62	25	126	2204
20	-6	-486	-221	114	206	246	267	261	292	301	286	292	284	307	332	271	298	312	313	271	46	191	123	160	166	2177
21	191	191	176	231	267	283	286	286	298	292	301	298	286	286	286	298	271	307	286	149	271	646				
22	148	160	231	225	271	271	283	286	298	277	283	283	298	298	298	298	298	301	271	246	240	191	261	301		
23	179	169	86	225	267	271	286	292	322	307	323	344	347	329	332	347	313	191	400	307	148	55	139	252	1589	
24	222	240	267	261	271	267	277	277	277	283	286	292	301	298	298	298	298	301	283	277	253	255	283	406		
25	246	261	267	252	255	267	271	271	277	277	286	292	298	298	298	298	298	332	277	255	267	255	255	277	313	
26	255	267	252	255	277	283	277	283	283	286	286	292	283	283	283	283	283	283	283	283	283	283	283	277	46	
27	271	271	277	277	277	277	283	301	298	292	298	298	301	307	313	347	362	332	375	62	-46	322	271	277	1562	
28	55	-40	83	148	222	271	307	298	286	286	286	286	286	286	286	286	286	283	222	194	237	808				
29	222	277	271	271	267	267	271	277	286	286	292	298	301	307	307	298	298	301	328	176	0	-25	114	250	866	
30	277	277	286	231	261	277	277	283	283	286	313	329	316	307	332	316	292	298	292	271	375	225	252	289	974	
31	240	240	240	286	246	271	281	292	292	297	283	283	283	283	277	277	277	283	286	277	255	255	261	437		
M	210	145	163	216	237	261	271	277	283	283	295	295	298	301	298	292	301	289	274	289	246	246	237	219	261	860
QM	267	267	271	274	274	277	280	280	283	286	289	289	286	286	286	286	286	277	271	267	264	277				

## FEBRUARY 1955

DAY	HOURLY MEAN VALUES																							M	R		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
1	267	271	261	267	267	271	277	283	286	286	286	286	286	286	286	286	286	277	276	277	225	222	222	206	267	151	
2	240	246	237	255	271	271	277	292	293	298	301	307	313	316	307	267	286	313	316	307	237	222	200	277		510	
3	216	148	129	252	301	298	307	283	286	286	292	301	313	316	344	332	369	312	315	307	267	313	208	240	840		
4	240	240	206	240	252	271	292	292	298	313	301	313	316	344	344	328	319	308	312	316	316	316	316	316	316	1396	
5	99	114	63	206	237	271	283	307	298	292	292	292	292	292	292	292	292	298	313	304	317	319	325	240	396		
6	139	222	222	246	316	298	283	283	271	286	307	313	316	301	313	316	329	359	307	353	283	271	271	271	271	271	1516
7	108	62	46	132	261	252	298	292	301	313	301	301	316	321	267	301	316	325	325	319	252	237	222	222	237	556	
8	237	240	252	240	277	283	298	298	298	298	302	301	307	316	277	298	301	301	301	301	316	316	316	316	316	316	1396
9	240	267	210	191	221	271	271	322	322	322	322	301	301	307	316	316	316	316	316	316	316	316	316	316	316	316	1261
10	237	222	210	210	225	261	267	271	271	271	307	316	338	344	329	349	316	292	286	271	271	271	271	271	271	271	584

## Tromsø.

JANUARY 1955

## Declination. Storminess. (+ W). Unit Gamma.

## Gr. M. T.

HOURLY MEAN VALUES

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS		
1	-4	-2	-2	-4	0	0	0	0	4	10	0	-2	0	8	12	10	10	13	-3	7	14	6	-20	2	94	37	131		
2	-22	8	0	7	2	0	2	2	3	0	0	0	0	5	10	10	0	7	7	-2	15	0	-7	2	77	31	108		
3	3	2	2	0	0	0	0	0	0	4	0	2	14	5	2	3	0	0	0	0	0	-3	1	37	3	40			
4	-27	-32	-63	-23	-7	-2	2	7	1	3	2	7	8	10	6	-7	20	10	-7	-17	-10	-10	-10	-5	7	-5	69	218	307
5	-2	0	0	0	0	0	0	0	4	3	0	2	3	3	5	0	0	0	3	3	5	54	-4	-50	1	82	56	138	
6	25	0	2	-15	-28	-17	-3	5	6	5	3	3	5	8	8	7	0	5	0	-47	-22	-15	-5	-8	3	62	160	242	
7	-10	-7	-8	-18	-2	-2	3	3	-2	0	3	15	20	7	10	5	16	10	10	15	15	15	-4	-8	2	125	67	192	
8	-7	-20	-5	0	0	0	0	0	4	2	0	0	3	10	18	6	6	-10	-7	13	25	0	-15	1	87	67	154		
9	-54	-50	-10	-17	-18	-15	27	25	30	17	5	17	20	15	58	-70	30	35	35	-12	17	10	0	0	0	3	306	246	552
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	-5	0	-5	-4	3	0	0	-1	3	19	22
11	-5	-10	-20	-13	-4	0	0	0	0	-3	5	10	16	27	17	10	15	10	7	17	7	-45	-67	-2	141	167	308		
12	-33	-122	-20	-5	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183	183	
13	-10	-40	-12	-5	2	5	6	8	4	0	-8	-3	0	3	-18	5	0	-4	2	-32	0	-10	-3	-5	35	149	184		
14	-4	-4	-3	-8	0	2	2	0	-5	-2	-2	0	0	-7	13	18	6	-42	-7	-3	-10	-2	-2	43	102	145			
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	0	-5	0	-8	-8	0	-2	2	0	0	-7	-2	4	20	23	27	16	8	8	7	-5	-8	-12	-2	3	122	52	174	
17	-5	-2	-3	7	-7	-5	-2	-2	10	7	-13	-8	27	35	-32	22	10	-4	0	33	18	7	115	22	10	313	83	396	
18	-75	-267	-288	-190	-190	-62	-27	-2	-14	-13	-17	-12	-5	3	13	-2	-12	-2	-17	-32	-13	-50	-20	-12	-54	16	1322	1338	
19	-30	-163	-140	-43	-23	-92	-78	-70	-65	33	-2	-30	5	2	-2	0	-50	-95	50	68	-29	-67	77	-50	92	1266	1358		
20	-90	-245	-310	-53	-23	-10	-3	-5	3	5	-2	0	8	18	-2	5	3	10	-2	-75	-26	-47	-33	-36	52	926	978		
21	-25	-25	-30	-15	-3	2	3	3	0	4	0	3	4	0	5	8	5	10	10	7	-2	12	16	-37	-2	90	137	227	
22	-40	-35	-13	-17	-2	-2	2	3	5	-3	-3	-5	0	2	5	5	5	0	8	-2	-8	-10	-23	-5	35	163	198		
23	-30	-32	-60	-17	-5	-3	-2	3	5	13	7	10	17	20	15	18	23	10	-30	38	10	-42	-70	-40	-9	169	396	585	
24	-15	-10	0	-3	-2	-3	0	-2	-2	-3	-2	0	3	8	7	0	6	0	7	2	2	28	-2	1	63	45	108		
25	-7	-2	0	-8	-7	-3	-3	-2	-2	0	-2	0	4	3	5	3	0	0	5	18	0	-5	0	-2	0	38	43	81	
26	-2	0	-6	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	15	15			
27	0	0	0	0	0	0	0	0	5	5	2	0	0	5	10	20	26	16	32	-70	-103	18	3	-2	137	173	310		
28	-70	-100	-60	-42	-18	-2	10	7	0	0	-2	-2	0	0	0	0	0	0	2	-12	4	-15	-22	-13	25	345	370		
29	-15	3	0	-2	-3	-3	0	0	0	0	0	0	0	0	5	4	5	5	6	15	-33	-88	-95	-48	-10	43	287	330	
30	3	3	5	-15	-5	0	0	0	2	-2	0	-2	7	14	10	10	18	10	3	5	5	-2	34	-15	3	129	44	173	
31	-10	-10	-10	5	-8	0	5	5	0	2	2	2	2	0	0	0	-4	-25	3	0	-5	-6	-3	-5	24	135	159		
M	-18	-37	-35	-20	-9	-5	-2	0	0	-1	1	1	3	6	7	5	6	2	-3	4	-10	-8	-10	-15	-6	63	224	307	
MPS	1	1	0	1	0	0	2	3	3	2	3	2	1	4	6	8	8	6	5	4	8	3	6	6	1	1	1		
MNS	19	37	35	20	13	5	4	3	3	3	2	1	1	0	1	3	1	3	7	4	13	14	16	16	16	1	1		

FEBRUARY 1955

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS		
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	-13	-2	0	39	39	
2	-2	-2	-5	0	3	3	5	0	2	3	5	7	10	10	-3	3	12	5	7	16	-3	-8	-15	2	94	38	132		
3	-10	-34	-40	0	7	13	10	10	0	-2	0	3	10	22	18	30	18	14	15	15	22	22	22	4	199	30	100		
4	-2	-4	-15	-5	-3	-5	0	5	5	7	-3	18	17	20	15	8	35	8	10	12	-14	-53	-90	-7	158	264	422		
5	-48	-45	-55	-16	-7	3	5	10	5	2	0	8	23	17	20	7	-100	-57	10	-22	22	2	-63	-12	-2	132	413	545	
6	-35	-10	-10	-3	0	18	10	2	0	-7	-2	5	-5	14	27	10	25	2	0	10	20	-55	-42	-53	-3	143	222	365	
7	-45	-62	-67	-40	0	-3	10	5	6	7	3	3	18	14	-20	-3	8	13	-6	-40	-20	-2	-3	-8	-95	89	317	405	
8	-3	-4	0	-5	5	7	5	7	5	0	-5	-5	0	0	-2	-2	2	5	-112	-25	7	-7	-15	-25	-18	-7	55	224	279
9	-2	-2	-5	-14	-15	-13	-13	0	15	20	13	8	0	-2	-2	-3	5	18	-20	13	0	8	3	-2	1	108	86	194	
10	-3	-10	-14	-15	-12	-5	0	2	10	10	10	5	4	-2	0	0	0	0	-32	-3	-3	-6	3	-3	44	105	149		
11	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198	20	218
12	-17	-14	-20	-18	-20	-22	5	0	5	3	-2	3	0	0	0	0	0	0	0	0	0	0	-87	-18	-7	69	228	297	
13	-42	-92	-40	-40	-40	-2	0	2	0	3	-2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	68	226	294	
14	0	-10	-14	-20	-15	-2	5	10	10	2	2	-2	13	10	5	12	17	-40	-8	5	-12	-65	-18	-25	-6	93	229	322	
15	-42	-100	-34	-30	-32	-20	-15	0	0	5	-2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290	290
16	-17	-57	-65	-45	-20	-7	-14	12	-4	-3	18	10	12	27	15	2	8	7	5	7	-12	3	0	-18	-6	126	262	388	
17	-42	-2	-86	-35	-17	-5	5	8	5	3	-2	8	5	3	7	-22	-3	5	35	-22	12	-27	-2	-14	54	387	441		
1																													

## RESULTS OF MAGNETIC OBSERVATIONS, FOR THE YEAR 1955

Kosmisk Fysikk

Tromsø. Declination. D = 0° W+ Tabular Quantities expressed in Tenth of Minutes. Gr. M. T.

APRIL 1955

HOURLY MEAN VALUES

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	
1	25	102	148	163	132	169	243	243	271	277	298	332	316	307	286	277	255	255	255	231	286	-62	-216	-22	191	1319
2	77	31	86	132	148	222	286	301	286	286	316	415	461	461	498	523	614	513	332	237	-169	114	222	280	2355	
3	237	129	-31	191	231	206	216	255	267	286	338	384	400	467	501	406	390	338	344	369	292	148	216	286	1079	
4	216	225	222	206	222	231	246	267	283	298	332	338	344	316	292	298	393	210	179	292	292	267	277	283	62	77
5	-421	210	237	216	222	216	225	271	261	298	332	362	390	353	378	353	347	362	271	313	246	191	148	176	840	
6	123	-55	25	77	206	240	255	237	246	287	301	316	347	390	384	316	292	267	271	267	283	99	-6	-200	206	1440
7	-9	-37	-240	99	216	237	222	225	216	283	271	298	332	375	347	329	283	301	307	271	99	216	277	92	210	1110
8	216	237	225	210	210	216	277	353	298	271	286	301	316	313	316	307	316	362	332	359	313	145	231	267	280	1199
9	240	225	222	206	222	231	246	267	283	298	307	298	286	277	271	271	267	277	283	286	283	210	179	292	267	661
10	210	240	222	216	210	216	222	225	237	246	307	359	353	481	470	409	362	154	283	286	194	210	185	86	264	735
11	132	210	206	123	129	179	216	252	292	307	313	338	329	332	321	301	313	298	286	277	283	240	246	261	421	
12	246	176	-37	52	102	216	252	252	277	277	322	347	313	301	271	267	277	298	286	353	-37	83	-154	203	1125	
13	-22	-160	-222	-185	145	261	252	267	267	307	389	332	347	338	316	316	322	298	283	347	307	132	237	216	1861	
14	179	216	237	240	301	316	344	329	298	313	322	307	286	286	286	286	286	271	261	252	216	210	274	271		
15	240	225	225	225	222	231	255	255	283	298	313	329	329	301	286	298	301	277	237	222	264	182				
M	117	99	99	148	185	213	237	250	261	274	292	313	335	341	329	325	325	322	332	332	313	252	169	151	252	954
QM	243	234	225	219	216	216	222	234	252	277	298	310	313	301	286	280	280	283	289	286	277	267	261	252	264	

MAY 1955

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R		
1	83	148	176	169	163	191	206	222	237	271	271	288	298	277	271	287	246	277	287	286	271	258	152	200	228	599	
2	216	200	194	191	194	200	206	206	237	252	307	347	347	313	298	267	283	286	298	246	191	206	148	246	301		
3	163	179	194	176	176	194	206	225	237	277	301	332	322	313	301	347	369	415	375	347	298	283	255	216	250	359	
4	225	216	206	210	206	216	225	240	255	271	292	329	344	332	332	329	283	286	298	283	246	191	31	169	243	885	
5	117	194	148	163	216	206	222	255	246	271	292	316	359	384	344	344	316	329	313	298	277	252	246	267	464		
6	83	6	92	154	139	132	206	240	225	237	255	237	322	344	298	307	316	338	378	298	117	15	6	213	1890		
7	-277	246	332	-15	-86	114	222	222	240	267	307	338	332	347	319	359	307	301	277	261	252	102	71	213	2041		
8	-139	-6	0	31	160	129	237	255	267	298	332	327	349	378	338	347	300	467	424	369	252	216	-99	216	1396		
9	160	132	148	169	200	194	206	225	246	292	322	332	329	298	307	277	316	344	316	292	277	246	154	246	931		
10	-66	77	191	139	206	200	210	222	255	271	292	283	299	292	277	271	271	292	263	316	237	225	185	154	225	931	
11	185	210	194	185	176	176	191	191	237	283	301	307	301	283	283	271	271	252	222	191	194	240	182				
12	191	169	185	163	210	206	225	252	277	313	332	332	344	347	344	309	362	375	307	191	210	99	264	630			
13	68	31	86	180	179	169	194	225	261	283	316	369	375	375	329	359	430	576	332	301	277	129	169	261	1172		
14	139	148	169	163	194	246	252	307	277	298	302	329	353	352	352	375	355	323	348	323	223	148	160	261	464		
15	191	179	200	194	225	225	225	251	271	298	302	329	329	329	301	292	292	271	291	271	255	225	225	210	220		
16	117	46	-129	-185	169	216	185	210	225	277	298	313	322	329	298	329	307	306	276	271	267	246	237	227	222	953	
17	237	240	231	206	194	210	206	200	225	255	277	277	301	298	301	298	301	298	286	277	271	252	222	258	151		
18	145	191	206	206	206	206	216	237	246	283	298	307	307	298	298	286	301	292	292	286	271	255	237	255	255		
19	237	231	210	191	176	185	200	225	252	283	301	316	329	313	283	271	277	292	301	313	286	283	267	252	225		
20	237	246	210	216	231	240	261	271	332	332	347	338	338	308	307	298	286	286	286	286	277	261	252	280	166		
21	225	222	210	206	206	206	216	231	267	283	316	316	329	313	313	316	316	329	329	329	329	329	329	277	210		
22	237	222	210	200	191	191	210	210	237	277	301	322	321	301	301	301	301	301	301	301	301	301	301	277	218		
23	240	225	206	206	194	194	206	206	222	267	307	303	338	338	313	301	301	307	307	301	301	301	301	277	225		
24	227	222	206	206	194	194	206	206	222	267	307	303	338	338	313	301	301	307	307	301	301	301	301	277	225		
25	216	216	222	210	206	206	206	216	237	286	306	313	313	313	301	301	301	301	301	301	301	301	301	277	225		
26	-185	-216	-129	-37	-25	77	129	86	31	277	313	316	313	292	292	292	322	329	332	328	283	240	240	163	148	1245	
27	200	83	154	179	169	176	186	205	210	252	307	332	369	384	455	454	492	455	455	455	455	455	455	455	280	1787	
28	-129	-231	-68	40	17	92	123	261	223	210	277	300	344	378	347	358	358	329	329	329	329	329	329	329	214	1485	
29	176	191	163	145	154	163	216	206	206	231	298	329	344	347	344	347	344										

Tromsø.  
APRIL 1955

Declination. Storminess. (+ W). Unit Gamma.  
HOURLY MEAN VALUES

Gr. M. T.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS		
1	-72	-42	-25	-17	-27	-15	6	3	6	0	0	8	0	2	0	0	-7	-9	-12	-18	-3	-107	-135	-69	-24	25	598	623	
2	-55	-65	-45	-27	-22	2	21	23	11	3	0	3	33	52	57	72	80	108	72	15	-13	-142	-122	-10	2	552	501	1053	
3	-3	-32	-63	-8	5	-3	-2	8	5	3	-4	10	23	32	57	73	42	35	15	19	8	37	-12	11	402	147	549		
4	-10	-7	4	0	2	0	0	0	13	3	-5	0	8	14	10	5	7	36	-27	-35	5	8	2	-47	0	125	131	254	
5	-217																								193	297	490		
6	-40	-93	-65	-45	-3	8	11	2	-2	-3	0	3	11	29	32	13	5	5	-7	-6	2	-55	-87	-147	-18	121	553	674	
7	-83	-87	-151	-38	0	7	0	-2	-12	-2	-9	-3	6	24	19	17	2	6	5	-5	-58	-17	5	-52	-18	93	517	610	
8	-10	2	0	22	-2	0	18	40	15	-2	-4	-2	0	4	10	10	13	26	13	24	12	-40	-10	5	-5	192	72	264	
9	-2	-2	0	-3	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	-5	0	5	-65	-57	-6	5	141	146	
10	-12	3	0	0	0	0	0	0	0	-8	3	17	15	42	60	43	28	-42	-3	0	-27	-19	-25	-54	1	209	490	395	
11	-37	-7	-6	-30	-28	-12	-2	7	13	10	5	10	12	12	8	10	2	0	0	5	-7	-2	-1	109	131	240			
12	0	-18	-85	-87	-37	0	10	7	8	0	8	13	0	0	-5	-3	0	-5	2	0	25	-99	-58	-132	-19	73	529	602	
13	-87	-127	-143	-130	-23	15	10	12	5	10	10	8	11	12	10	13	15	13	2	0	23	13	-42	-5	-16	182	557	759	
14	-22	-5	4	8	8	28	31	37	25	0	0	0	0	0	0	0	0	0	0	0	0	0	-12	-12	4	141	51	192	
15	-8	-2	0	3	3	2	3	-2	0	-7	-5	-3	0	9	14	17	8	0	2	5	0	-8	-10	1	66	39	105		
16	0	0	0	0	0	0	0	0	0	-4	-2	5	4	7	5	3	2	9	-2	-19	-8	-4	0	45	39	84			
17	2	5	4	-2	-3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	19	5	24			
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0			
19	2	0	-5	2	5	-2	0	-2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	7	20		
20	-5	-7	-6	0	-3	-12	6	10	3	-3	-5	3	6	18	10	13	8	20	28	14	-12	-7	-13	-22	1	133	95	228	
21	-5	-2	-6	-5	-8	-3	0	5	6	2	0	7	6	14	4	12	17	20	15	30	3	-20	-18	-14	3	141	81	222	
22	-13	-2	-13	-22	-13	8	0	-8	-1	0	3	7	5	7	7	5	3	-3	2	-37	-35	-17	-4	5	52	174	226		
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24	2	-3	-10	-2	-3	0	0	2	5	2	0	0	12	20	24	17	40	48	73	123	62	28	0	-48	-14	16	458	80	538
25	-52	-40	-33	-32	-12	2	-2	2	0	2	3	12	23	27	30	23	23	30	-10	-5	-90	-74	-58	-84	-13	177	492	669	
26	-37	-215	-90	-40	-22	5	26	23	20	23	16	-7	15	17	10	7	10	-2	8	30	7	-50	-80	-80	-17	217	623	840	
27	-245	-147	-75	-33	-22	-12	3	12	6	-2	0	0	0	0	10	10	43	69	133	135	-200	-57	-77	-182	-26	422	1052	1474	
28	-102	-97	-53	-58	-68	-28	-7	-25	-10	-15	-2	-7	10	10	30	20	23	35	57	45	30	-5	-15	-114	-15	260	626	886	
29	-77	-148	-200	-30	-12	-13	-5	-18	-20	-35	-54	-22	0	14	12	17	43	28	7	24	28	-124	-140	-127	-36	166	632	1198	
30	-82	-107	-86	-22	-17	-12	-2	-13	-4	-7	-10	-18	-5	10	5	13	2	6	-5	-50	-22	-10	-35	-67	-21	49	561	610	
M	-42	-43	-40	-22	-10	-1	4	6	3	-1	-2	2	7	13	15	16	15	16	18	17	14	7	1	1	0	-6	157	314	471
MPS	0	0	0	0	1	3	5	8	5	2	2	3	4	2	0	0	0	2	3	4	5	28	37	48					
MNS	42	43	41	23	11	4	1	2	2	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MAY 1955

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	
1	-48	-24	-13	-10	-12	-3	0	0	7	-2	-10	-10	-8	-12	-10	-8	-15	-5	-10	-5	-7	-8	-42	-15	-11	7	277	284
2	-3	-3	0	0	0	0	-5	-3	-8	3	10	8	0	0	-3	-3	-2	-6	0	-15	-28	-18	-32	-5	21	134	155	
3	-28	-14	-7	-8	-2	0	0	-3	0	0	0	0	0	0	0	0	18	25	40	24	15	2	-2	-10	2	126	76	202
4	-2	-2	-3	0	0	0	0	0	0	0	0	5	10	12	12	-3	-3	-5	-6	-80	-28	-75	-25	-8	32	252	264	
5	-37	-10	-22	-12	5	2	5	10	0	-2	-2	0	0	15	27	17	17	17	8	10	4	2	0	0	1	122	86	210
6	-48	-70	-40	-15	-20	-22	0	6	-7	-13	-14	13	-67	6	54	25	8	12	37	14	3	-2	-37	-85	-8	215	403	618
7	-165	8	38	-70	-93	-28	5	0	-2	-3	3	8	3	10	22	2	7	8	10	-20	-10	-17	-52	-57	-16	124	517	641
8	-120	-74	-70	-55	-13	-17	10	10	-3	-3	0	6	15	3	20	60	52	67	35	-25	2	-37	-53	-10	280	523	803	
9	-23	-30	-22	-10	-15	-2	0	0	0	0	0	5	8	6	2	-7	2	-5	8	17	5	-3	-35	-38	-144	53	190	243
10	-103	-47	-8	-20	2	0	0	0	3	-2	-2	-10	-10	-7	-6	-7	-7	0	-6	-5	-18	-25	-30	-14	5	332	337	
11	-15	-4	-7	-5	-8	-8	-5	-10	-5	0	0	0	0	0	0	0	0	0	-5	0	-10	-13	-18	-7	0	163	163	
12	-13	-17	-10	-12	-3	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	-53	-62	-42	-13	-7	-10	-4	0	5	2	6	18	17	20	17	18	22	45	70	10	3	0	-43	-25	-1	247	259	506
14	-30	-24	-15	-13	-2	15	15	28	10	-3	-2	-5	5	17	2	13	23	10	24	12	-18	-37	-28	0	179	177	356	
15	-13	-14	-5	-2	-2	5	8	0	-8	-10	-15	-7	-4	-3	-3	-3	0	-10	-10	-12	-13	-14	-1	19	103	122		
16	-37	-57	-28	-123	-10	5	-7	-4	-7	0	0	0	0	-5	10	5	-2	-7	-3	-10	-15	-8	-8	-13	20	334	354	
17	2	6	5	2	-2	3	0	-7	-5	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	18	27		
18	-28	-10	-10	-17	-18	-20	15	4	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	11	41	52		
19																												







Tromsø.

OCTOBER 1955

## Declination. Storminess. (+ W). Unit Gamma.

Gr. M. T.

HOURLY MEAN VALUES

DAY	1	2	3	4	5	6	7	8	9	10	11	12	B	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS		
1	-15	-13	-13	-8	0	0	2	3	5	-3	1C	15	15	3	16	10	9	-29	10	-22	-14	-12	-1	108	128	236			
2	-30	-15	-13	3	7	2	2	2	3	5	10	20	25	17	18	-22	-43	-45	30	-28	-40	-17	-29	-32	-7	144	318	462	
3	-15	-5	-80	-22	9	5	-3	7	3	10	11	12	15	7	11	-25	20	7	2	-2	-5	-3	-2	126	163	289			
4	-12	-27	-22	-18	-3	15	20	2	-5	7	-8	8	15	18	12	3	0	2	-12	-22	-30	-38	-4	102	197	299			
5	-12	-10	-18	-2	-3	-11	-13	0	-3	3	0	26	24	23	33	-9	58	8	50	27	-122	-43	-162	-69	-9	262	476	738	
6	-52	-35	-90	-40	9	0	0	0	0	-13	-8	3	10	19	27	27	28	15	36	39	22	-17	-20	-27	-22	-3	235	304	539
7	-45	-33	-28	-2	-6	-6	-6	-6	-6	8	5	12	18	29	37	28	35	15	6	5	9	-5	-7	-32	-20	1	207	190	397
8	7	7	3	7	5	-3	2	12	28	20	15	15	15	10	5	3	6	5	10	5	0	8	10	-18	7	198	21	219	
9	-3	-7	-10	-5	-5	-5	-5	2	0	2	2	5	10	10	7	8	15	20	14	9	C	-5	-80	-180	-8	104	303	407	
10	-97	-7	-3	-10	0	0	0	12	10	3	0	18	16	32	8	-13	11	-10	0	-5	-10	-10	-2	-3	124	189	313		
11	2	2	2	5	4	4	4	5	3	13	7	13	24	13	2	5	19	5	-3	-6	2	0	0	0	5	134	9	143	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	0	0	0	3	8	11		
13	2	0	0	0	0	0	0	0	0	3	6	8	4	5	-2	0	13	13	17	5	-25	-23	5	-5	-1	81	55	136	
14	-5	-2	2	0	0	4	22	22	22	18	7	8	14	15	2	0	0	3	-8	0	-9	-12	-14	-12	-3	139	62	201	
15	-3	-5	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	-2	-3	-9	-73	-5	0	111	
16	-88	-47	-27	-13	3	3	2	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	2	-24	-10	-8	11	211	222	
17	-5	-15	-15	-8	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51			
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	-3	-2	-7	-4	2	-1	2	19		
20	-2	-3	-12	-2	-2	-3	0	2	7	13	27	20	19	25	37	41	20	10	5	-8	-5	-7	-7	-2	7	228	51	279	
21	-3	-3	-3	0	0	0	5	7	-2	-2	0	15	17	13	10	16	11	14	2	-14	-75	-64	-42	-4	110	211	321		
22	-7	-3	-3	0	0	0	4	2	2	0	8	11	20	26	35	22	-8	-10	-12	-9	-20	6	217	79	295				
23	-30	-15	-23	-7	0	4	2	2	0	0	5	16	13	3	13	8	15	-6	0	0	0	0	0	0	0	81	81		
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-14	-42	-2	0	56	56			
25	-112	-143	-115	-85	9	5	12	-11	-12	3	-12	58	19	-22	45	71	-7	21	40	0	71	-18	-109	-42	-14	354	688	1042	
M	-29	-20	-23	-11	-2	1	2	3	3	4	5	5	10	12	11	11	12	10	8	11	4	3	3	0	0	-4	181	211	532
MPS	0	0	0	1	2	2	3	4	5	5	10	0	0	1	0	0	1	2	2	5	8	6	6	13	22	28	25		
MNS	30	20	23	12	4	1	1	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0

NOVEMBER 1955

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	
1	-17	-22	-13	-70	-5	15	13	7	-2	2	8	3	7	0	7	10	15	80	-55	-3	-2	-15	-5	-1	180	209	389	
2	-2	-2	-2	-3	2	0	-2	0	-3	15	20	18	8	13	5	14	15	10	17	10	13	5	2	7	176	12	188	
3	0	0	0	#0	0	0	0	-2	0	3	0	3	0	3	7	5	7	5	15	23	13	0	10	4	96	2	98	
4	-65	-125	-43	33	-8	-67	11	-21	8	13	14	8	0	-2	-5	-3	0	2	-2	0	-60	-68	-137	-21	91	596	687	
5	-103	-108	-86	-65	-20	12	11	14	0	12	10	18	15	12	13	7	5	8	17	2	-7	-25	-25	-12	156	443	599	
6	-12	-3	0	-2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	-28	-38	-15	-4	2	105	107	
7	8	-13	-8	-5	-2	-2	-3	-3	0	4	3	0	5	8	5	5	5	10	13	19	17	13	12	13	-4	137	36	173
8	7	8	7	2	7	17	23	10	2	13	20	18	21	18	32	127	188	38	48	14	20	3	7	20	587	100	687	
9	-73	0	0	3	-8	2	-5	0	3	-2	10	7	6	12	12	17	20	13	10	5	7	0	-5	2	139	91	230	
10	-8	-2	2	0	0	2	0	0	-7	-2	5	2	3	5	7	17	8	3	-2	-18	2	-5	-25	-27	-2	56	96	152
11	-42	-2	5	7	3	2	0	0	-3	0	0	0	0	5	20	22	0	7	3	-5	-25	-35	-15	-4	2	76	117	193
12	7	7	3	-2	2	3	0	-6	-22	10	37	48	40	15	8	15	40	-10	-52	32	12	-2	0	0	8	279	94	373
13	7	0	-12	-20	-22	-2	5	-3	-8	0	0	0	0	0	0	0	0	0	5	5	-3	-4	-5	-2	23	82	105	
14	0	0	0	0	0	0	0	0	0	8	4	3	-4	-2	8	-5	11	17	14	3	3	0	7	3	92	11	103	
15	12	12	8	5	7	10	9	7	17	14	20	26	42	35	20	11	3	23	58	-5	-15	-75	-85	2	297	238	535	
16	-127	-102	-95	-97	-32	-18	11	14	0	-7	20	16	28	75	39	31	28	10	31	-65	-17	-77	-33	-17	291	694	985	
17	-28	-40	-7	-32	-3	-12	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	-30	-7	-17	-7	5	187	192	
18	0	-2	-7	-3	-2	5	15	7	-5	0	0	7	3	7	5	12	18	21	32	45	65	-150	78	40	13	456	236	
19	0	-27	3	-17	-10	-8	-7	-5	-28	-18	-31	-27	-7	75	49	86	-7	37	13	25	-50	11	11	457	204	661		
20	-45	-33	-83	-33	-20	-17	-28	-38	0	-6	0	34	3	8	28	-64	62	-25	-20	-97	-67	-65	-65	-30	101	825	926	
21	-95	-105	-35	-5	17	5	-2	-5	-3	0	0	0	0	0	0	0	1	-2	-2	0	0	0	0	-10	23	291	291	
22	0	0	0	0	0	0	-7	-2	3	4	10	15	15	-5	-3	-2	0	0	0	0	0	0	0	0	0	28	28	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112		
24	-5	-2	-2	-3	3	3	3	5	0	5	12	15	26</															





## Trondhjem. Horizontal Intensity, H=11100 + Tabular Quantities expressed in Gamma.

Gr. M. T.

APRIL 1955

HOURLY MEAN VALUES

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R		
1	-100	-10	75	70	53	70	72	85	93	100	110	103	130	112	115	97	77	87	100	80	5	-470	-360	-200	24	785	
2	-90	-35	45	73	53	63	45	55	80	108	82	185	260	310	420	350	220	155	117	20	-280	-220	90	89	1157		
3	87	2	-80	90	98	70	65	65	78	97	70	103	150	212	350	360	250	230	185	112	50	15	-60	5	107	565	
4	55	78	83	73	75	63	92	95	75	92	80	112	68	95	80	72	90	145	75	-60	70	85	-220	-430	43	882	
5	-320									100	92	138	147	250	270	163	232	195	120	-170	20	-22	-70	-58			
6	-130	-170	-120	-10	85	110	82	83	72	83	100	145	142	133	158	170	122	83	85	73	72	-230	-440	-300	17	861	
7	60	-185	-240	-45	38	82	78	72	97	110	92	105	100	152	150	160	133	120	92	-105	-115	-30	-18	-90	34	543	
8	25	103	98	92	83	65	42	62	65	68	68	73	82	105	117	157	150	205	172	115	50	-90	55	103	86	473	
9	77	87	80	78	90	83	92	83	73	67	77	80	82	85	90	98	103	98	98	95	87	-140	-80	68	420		
10	85	107	100	93	90	88	85	82	77	83	97	128	250	315	235	220	205	135	97	88	60	5	50	-115	111	522	
11	-10	93	83	37	15	60	83	88	70	88	85	93	92	130	93	110	110	155	140	117	95	77	70	90	86	226	
12	93	113	30	-95	58	70	75	78	80	90	120	120	83	70	78	97	100	115	120	50	-130	-110	-180	50	441		
13	-170	-200	-190	-50	80	128	100	87	82	83	73	70	90	95	115	97	125	128	135	135	100	58	90	48	55	533	
14	70	95	95	87	73	55	47	57	50	65	73	97	103	90	92	90	82	83	86	92	93	87	45	60	77	108	
15	65	72	72	78	88	90	66	87	80	67	66	67	77	193	100	112	127	112	105	103	95	82	67	55	90	86	
16	77	83	83	83	83	88	87	78	68	67	68	77	93	100	97	92	95	102	110	123	85	52	77	85	86	194	
17	92	97	92	83	83	78	72	67	60	60	90	110	98	82	100	93	108	112	122	110	95	90	90	90	81		
18	90	88	85	63	62	82	80	75	67	67	70	90	103	100	140	150	150	123	98	92	87	87	88	90	113		
19	92	90	85	70	55	77	85	83	75	68	75	83	85	85	87	88	87	102	102	100	98	97	98	103	86	54	
20	95	97	95	93	68	70	75	67	63	60	63	88	128	180	160	163	155	150	55	37	65	47	43	90	242		
21	73	62	83	80	83	78	73	67	57	58	77	80	103	168	150	122	120	150	128	150	40	20	-10	10	84	285	
22	43	85	40	-2	10	68	77	73	73	77	72	72	77	100	117	100	107	115	85	-30	-13	62	93	56	274		
23	95	92	90	88	87	85	78	75	68	66	55	63	73	75	82	88	92	97	98	95	90	92	82	54			
24	87	55	82	88	92	88	83	73	57	55	63	70	120	230	158	185	100	-10	15	-35	25	-220	-320	56	861		
25	-56	48	50	63	73	93	85	77	73	80	93	107	130	147	195	160	197	157	30	-100	-200	-135	-30	-120	51	611	
26	-410	-400	-110	62	73	87	50	50	38	55	53	155	250	150	102	118	92	103	105	128	65	-190	-180	-190	-330	-5	855
27	-300	-150	-150	10	75	73	53	90	77	90	80	67	92	97	133	120	100	105	100	100	73	98	226	1119			
28	-120	-40	5	-15	-10	30	70	90	97	140	148	230	128	95	153	173	152	170	102	60	-30	-200	-200	-100	47	710	
29	-125	-330	-200	90	60	90	85	60	63	105	145	235	180	245	180	180	110	190	170	130	85	-100	-525	-350	-182	23	979
30	-140	-280	-80	80	78	65	85	65	70	75	125	217	145	68	67	102	122	100	112	35	82	28	-75	-280	36	678	
M	-20	-9	13	51	66	74	75	72	69	79	87	113	116	137	140	140	143	136	111	63	7	-49	-63	-67	62	503	
QM	92	91	90	89	88	86	83	78	72	67	67	72	78	82	86	88	92	95	96	96	94	91	92	86		210	

MAY 1955

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	
1	-103	-30	63	70	70	77	82	70	67	60	68	80	77	78	90	93	118	127	102	95	70	-70	2	70	59	317
2	60	83	85	83	83	78	73	65	57	63	78	77	82	85	130	127	107	100	98	90	68	-30	-10	-13	74	264
3	42	42	70	82	83	87	80	72	58	63	67	73	75	82	87	140	140	190	160	115	102	100	73	98	226	
4	90	95	92	87	85	82	77	63	67	70	83	105	147	205	225	113	80	82	80	13	-130	-110	-55	72	522	
5	-20	78	67	70	90	77	80	73	70	73	68	67	73	125	195	340	260	133	117	97	102	97	40	103	554	
6	-60	-50	65	102	80	80	68	87	87	63	88	210	450	515	385	195	117	102	88	40	90	-20	-115	-440	259	1135
7	-310	-550	-340	30	-52	-35	87	80	67	95	95	72	88	125	183	182	99	108	100	-70	-50	-30	-92	-210	-15	963
8	-155	-90	-70	-150	-90	-10	88	85	65	65	87	165	377	200	105	295	300	180	-50	-160	-80	-240	-100	-160	29	1065
9	-17	53	70	80	82	80	93	65	80	78	72	72	78	185	110	107	140	140	50	98	82	-38	-115	68	420	
10	-190	-15	55	53	98	80	82	78	80	95	110	88	88	95	93	103	103	103	103	103	103	103	103	103	57	393
11	68	87	78	75	88	88	78	68	58	72	78	72	77	87	88	97	110	108	117	90	32	45	55	79	118	
12	73	68	92	83	73	75	73	68	52	67	78	90	118	118	135	157	183	162	158	75	-10	-200	-240	-135	58	678
13	-60	-72	80	110	102	90	85	83	87	80	78	72	92	92	98	120	200	60	130	102	40	-30	12	74	658	
14	-10	27	85	95	55	78	57	70	63	63	67	80	90	93	92	97	110	118	115	98	85	87	88	0	354	
15	50	68	70	88	82	77	77	68	55	62	50	75	78	178	157	193	185	193	180	123	37	72	87	92	91	91
16	-180	-250	-180	-260	-180	-50	85	75	170	160	80	78	85	120	177	200	160	130	113	85	20	37	-15	-40	27	710
17	-88	-12	78	93	87	87	80	72	63	60	60	80	180	207	225	250	220	200	140	-120	-210	-145	-175	48	769	
18	-235																									









## RESULTS OF MAGNETIC OBSERVATIONS, FOR THE YEAR 1955

Tromsø.

OCTOBER 1955

## Horizontal Intensity. Storminess (+ N). Unit Gamma.

Gr. M. T.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	CH			
1	-190	10	5	2	2	0	0	8	-3	-2	28	47	18	12	27	3	-13	0	17	-16	-55	-93	-53	-49	-12	179	474	653	1		
2	-68	-52	-53	-13	0	4	2	-7	-13	-17	0	5	28	0	136	125	-57	-58	-218	-425	-65	-90	-90	-33	422	1206	1629	2			
3	-42	-20	-170	-45	32	-13	-10	12	-3	-2	38	40	20	-10	0	-8	70	130	73	30	0	-15	-12	-20	-34	2	445	404	859	1	
4	-87	-105	-88	-40	-30	-13	-5	2	-5	20	15	28	10	12	5	-5	-10	5	20	12	-48	-150	-133	-190	-33	125	909	1038	1		
5	-152	-42	-35	-8	-3	4	5	0	-8	-5	-19	25	28	28	117	180	155	33	-148	-208	-185	-233	-563	-812	-52	575	1823	2398	2		
6	-123	-55	-170	-80	-40	-13	15	12	0	58	30	-5	-12	23	107	125	90	43	82	32	-45	-88	-83	-100	-9	617	824	1441	2		
7	-148	-80	-20	14	8	0	0	0	0	0	15	18	28	43	40	75	38	6	-3	-8	-36	-80	-93	-49	-10	287	508	795	1		
8	12	23	20	20	7	10	12	-6	-23	-13	0	0	0	0	0	0	0	10	2	3	-17	-26	1	119	87	206	0				
9	-21	-27	-23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	53	37	15	-22	-365	-573	-372	-54	113	1403	1516	2	
10	-150	28	18	12	14	12	10	7	7	-7	48	35	75	33	30	63	77	53	-18	-18	-25	-58	-36	-5	9	522	317	839	1		
11	0	0	0	0	0	0	0	0	-12	10	103	46	75	95	110	90	48	45	3	-18	-33	-7	0	0	23	625	70	695	1		
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	-55	-37	-23	-27	-6	-5	18	-10	-23	-2	5	12	7	2	-13	-2	-5	3	10	12	-15	-32	-95	-62	-14	44	196	240	0		
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-47	-285	-14	0	332	332	0			
16	-243	-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-15	0	365	365	0				
17	-7	-29	-42	-19	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0			
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	-12	-5	2	28	35	62	152	115	65	42	-13	-5	-25	010	-4	18	501	74	571	1		
21	0	0	0	0	0	0	0	0	0	0	0	0	0	7	12	13	45	56	39	-10	-40	-175	-208	-90	-15	172	523	695	1		
22	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-17	-35	-26	-42	21	629	187	756	1			
23	-88	-67	-48	-10	0	0	0	0	0	0	-3	10	3	0	7	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	-265	-380	-240	-110	-50	-6	-20	-62	-33	108	210	200	225	262	60	-295	-132	-65	-178	-565	-280	-243	-412	-87	1248	3334	4582	2			
26	-730	-290	-110	-180	-53	12	40	85	30	35	65	85	42	105	37	50	-45	-107	-378	-538	-345	-220	-308	-197	-122	582	3801	4083	2		
27	-43	-40	-20	-28	-28	-3	20	17	45	48	10	37	30	25	55	40	45	13	19	-35	-195	-225	-43	-89	-14	404	747	1151	1		
28	-57	-13	-18	-83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-32	-75	-78	-34	11	689	425	1114	1		
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	-2	-7	-12	-23	-50	-23	-17	-7	3	13	16	22	15	42	148	75	28	-148	-148	-90	-48	-245	-140	-14	-25	562	954	1301	2		
31	-28	-143	-332	-245	-173	-83	15	27	-13	-15	26	10	45	97	267	345	275	60	22	-78	-555	-395	-213	-107	-50	1189	2380	3569	2		
M	-80	-44	-44	-26	-11	-4	3	2	-1	10	17	23	27	37	56	52	30	4	-18	-50	-93	-96	-104	-86	-17	324	722	1046	1.0		
MPS	0	2	1	2	2	1	4	6	3	15	18	24	27	87	56	55	45	19	11	3	0	0	0	0	0	0	0	0	0		
MNS	81	46	45	27	15	5	2	3	4	3	1	0	0	0	1	0	12	15	29	55	93	96	104	86							

NOVEMBER 1955

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	CH	
1	-55	-50	-37	-138	-220	-55	-18	5	8	0	0	0	0	0	-4	10	15	-128	-157	-10	-53	-112	-44	-43	38	1061	1119	1	
2	4	-15	-12	0	0	0	0	0	4	28	22	23	33	158	65	96	97	64	50	35	4	8	-19	27	691	46	737	1	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	70	73	0	3	70	73	0		
4	-213	-325	-217	-438	-450	-370	-198	-15	30	32	13	19	17	8	10	20	43	62	2	-187	-285	-292	-347	-140	256	3610	3868	2	
5	-283	-260	-147	-133	-65	-55	32	17	15	40	25	52	18	0	0	0	10	29	19	10	20	21	-99	-35	268	1121	1389	2	
6	-90	-50	-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-18	0	386	386	0		
7	-55	-54	-23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	9	7	5	9	8	12	15	12	10	10	6	22	40	33	98	263	293	192	142	33	-12	-15	-7	-3	259	329	388	1	
9	-303	3	3	10	-7	-7	5	5	10	12	10	5	3	3	10	16	36	29	35	17	7	5	-19	-3	259	345	345	0	
10	-42	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	-85	-3	12	5	0	0	0	0	0	0	0	0	0	0	0	6	17	57	9	3	-63	-153	-39	8	-9	126	343	469	1
12	0	0	0	0	0	0	0	0	-19	-7	32	25	47	12	0	16	63	43	-108	46	25	-5	-14	-52	4	311	205	516	1
13	10	-5	-14	-30	-17	30	17	18	7	2	0	0	0	0	0	0	19	32	40	43	38	-5	-32	7	266	96	362	0	
14	-5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	53	15	32	27	33	-22	3</					



Trondhjem.

JANUARY 1955

## Vertical Intensity. Storminess (+ Down). Unit Gamma.

Gr. M. T.

DAY	HOURLY MEAN VALUES																							M	PS	NS	AS	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
1	-10	-27	-32	-12	-6	-5	-8	-8	-5	0	5	0	-5	0	10	25	6	5	-76	-71	-24	18	23	-8	92	289	361	
2	-48	-17	-25	3	12	0	-5	0	-2	5	0	-3	-2	0	4	5	18	11	5	-10	0	5	-1	80	112	192		
3	-13	12	8	0	0	-3	-5	-5	-7	7	5	3	2	3	23	13	-3	2	0	0	2	3	2	83	36	119		
4	22	-22	-15	7	5	-6	-5	-3	2	3	-5	-3	2	25	35	16	21	20	-12	-8	-25	29	-48	-13	1	167	171	358
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	-2	0	10	3	9	-11	-147	-83	-2	-9	22	248	270
6	-68	-28	-25	13	-45	-33	-7	-8	-10	-5	0	-3	0	0	2	10	20	5	-29	-23	-51	-50	-13	-18	-14	50	393	443
7	-11	-17	-68	-43	-15	-6	-8	-8	0	3	-3	-3	3	27	35	26	26	-34	-51	-21	8	-2	-12	-7	127	302	429	
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MPS	26	27	10	9	5	4	4	3	4	5	5	7	9	10	10	17	15	12	10	6	14	21	20	16	33			
MNS	14	16	21	17	10	12	8	5	6	12	5	2	6	9	19	12	8	20	27	31	21	28	20	20	10			

FEBRUARY 1955

DAY	HOURLY MEAN VALUES																							M	PS	NS	AS		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23						
1	-34	-7	0	0	0	0	0	-8	0	0	0	0	0	0	0	0	0	0	0	10	-17	-17	-76	-7	10	187	197		
2	-57	-28	-18	-3	2	0	0	0	0	0	0	0	0	0	22	43	59	42	40	36	15	-27	-58	-55	-11	1	267	237	564
3	-37	-52	-60	-23	-28	-43	-23	-13	2	3	2	3	5	3	18	35	52	50	26	0	-27	-37	-15	-13	-7	199	372	569	
4	-5	3	-3	-30	-49	-23	-23	-15	-15	-9	2	13	23	13	13	12	-30	-30	-5	-15	-80	-25	-65	-143	-20	79	555	644	
5	-14	8	-90	-38	-20	-23	-13	-23	-10	-9	0	7	33	30	32	58	50	-58	-27	35	-13	-41	-2	321	379	700			
6	-54	-37	-13	-18	-42	-23	-11	-33	8	8	5	5	8	5	5	5	5	5	47	39	15	-3	-15	-37	-80	12	153	443	596
7	15	8	-87	-26	-17	-50	-25	0	-2	-2	-2	-2	2	8	37	50	45	48	28	15	11	-21	-27	-30	-7	2	221	296	517
8	-12	-20	-8	-10	-2	-3	-5	-5	-5	-52	-48	-52	-45	-52	-38	-26	-48	-110	-164	-155	-92	-73	-87	-133	-51	0	0	1225	1225
9	-25	-29	-28	-17	-10	-7	-17	-7	0	-10	-7	7	40	47	20	40	47	30	27	17	-3	-32	-57	-63	-23	-11	286	315	
10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	-32	-78	22	13	132	14	464	589	
11	57	-37	-50	-22	3	-5	10	8	-13	5	15	0	38	42	38	15	15	-50	15	25	0	15	-25	-7	4	301	209	510	
12	5	5	71	25	23	-53	-28	-22	10	0	3	10	28	30	17	16	15	-25	-44	-57	-70	155	-19	-3	3	393	331	724	
13	33	-9	6	0	-8	2																							



















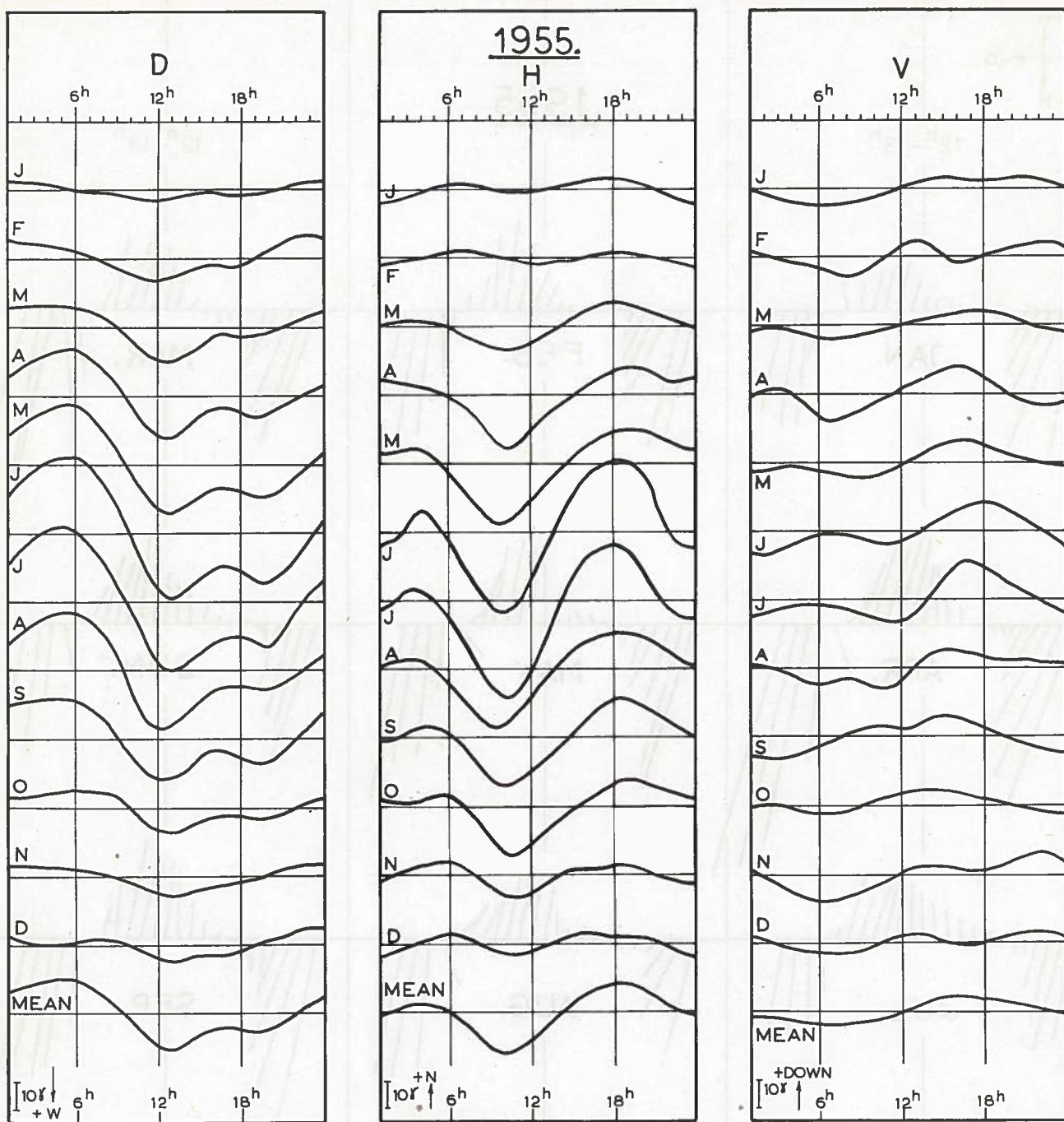
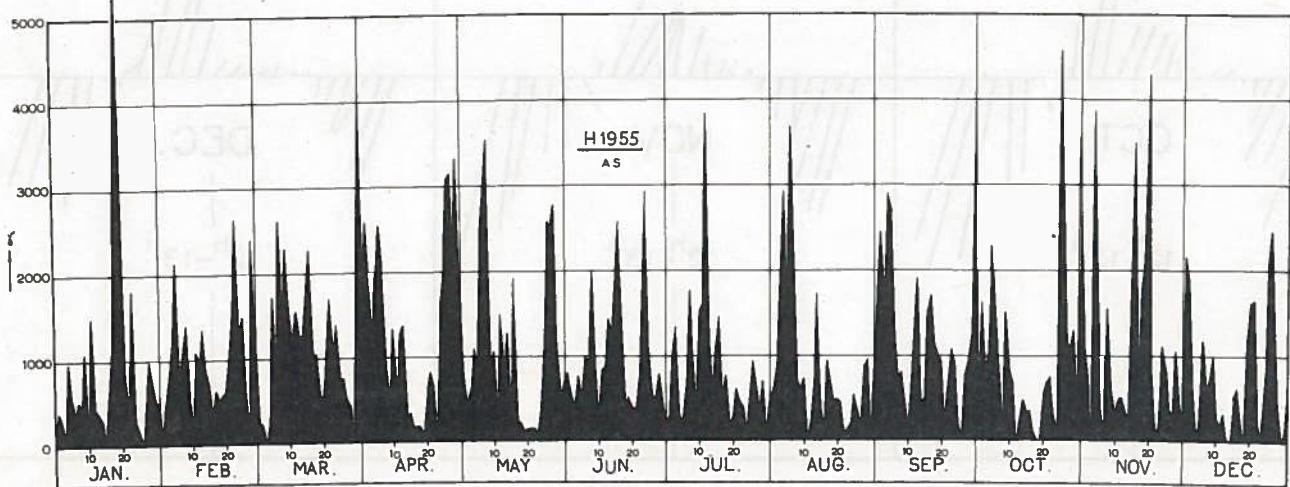


Fig. 1. The Quiet Diurnal Variation, smoothed Values.

Fig. 2. The Diurnal Sum of the Absolute Storminess of *H*.

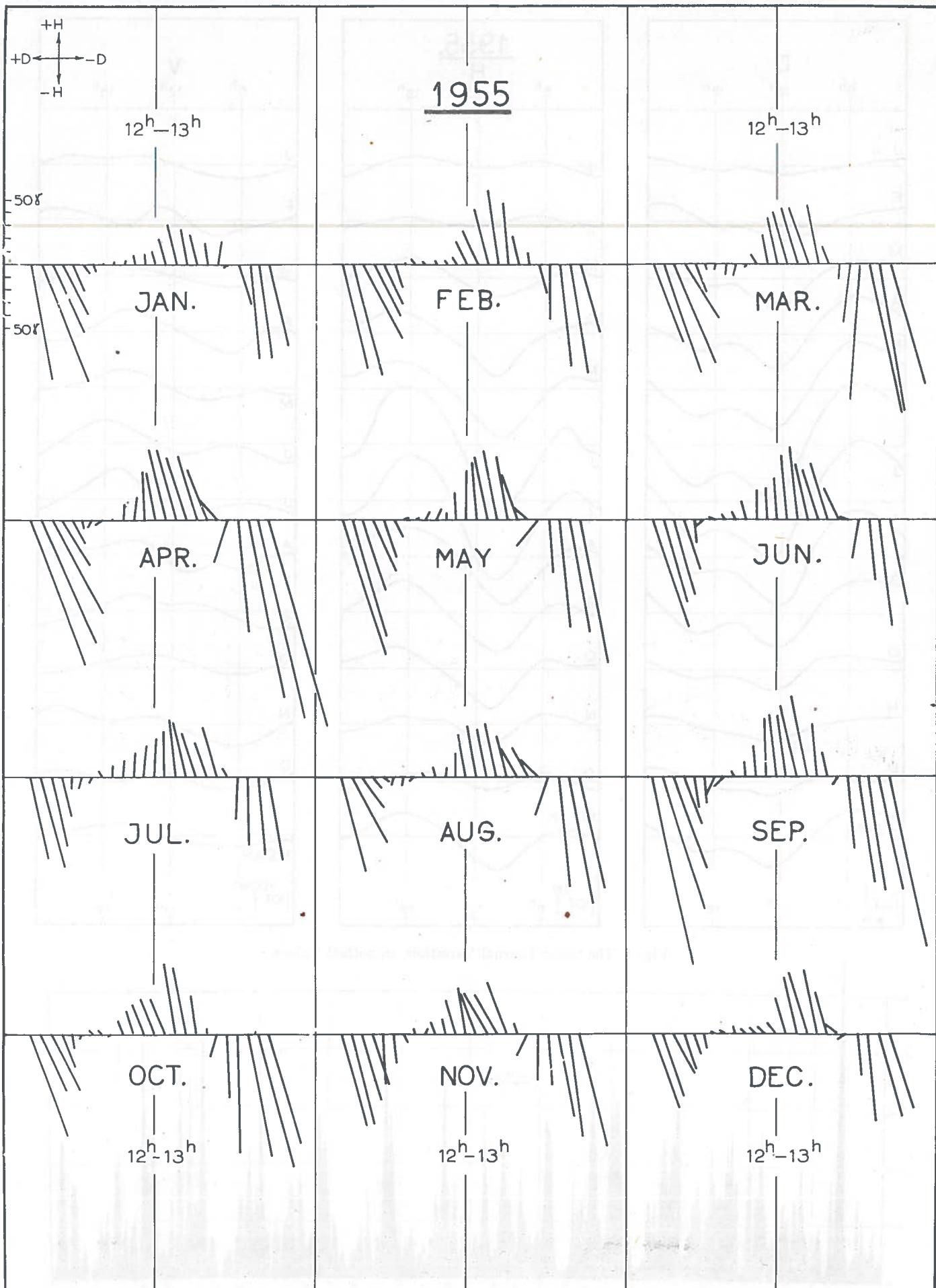
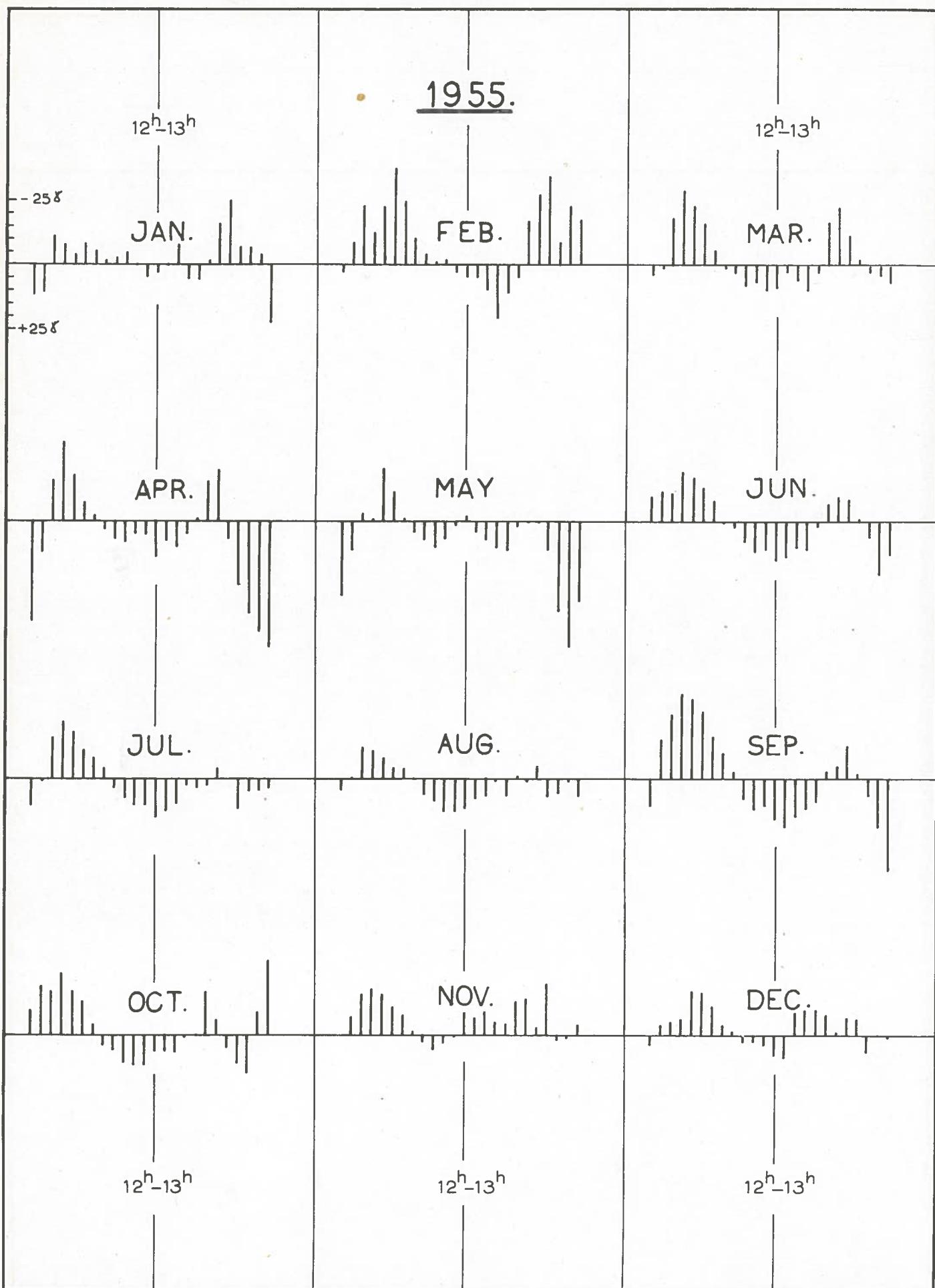


Fig. 3. Diagrams of the Monthly Mean Values ( $M$ ) of the Storminess in the Horizontal Plane.

Fig. 4. Diagrams of the Monthly Mean Values ( $M$ ) of the Storminess of the Vertical Intensity.



