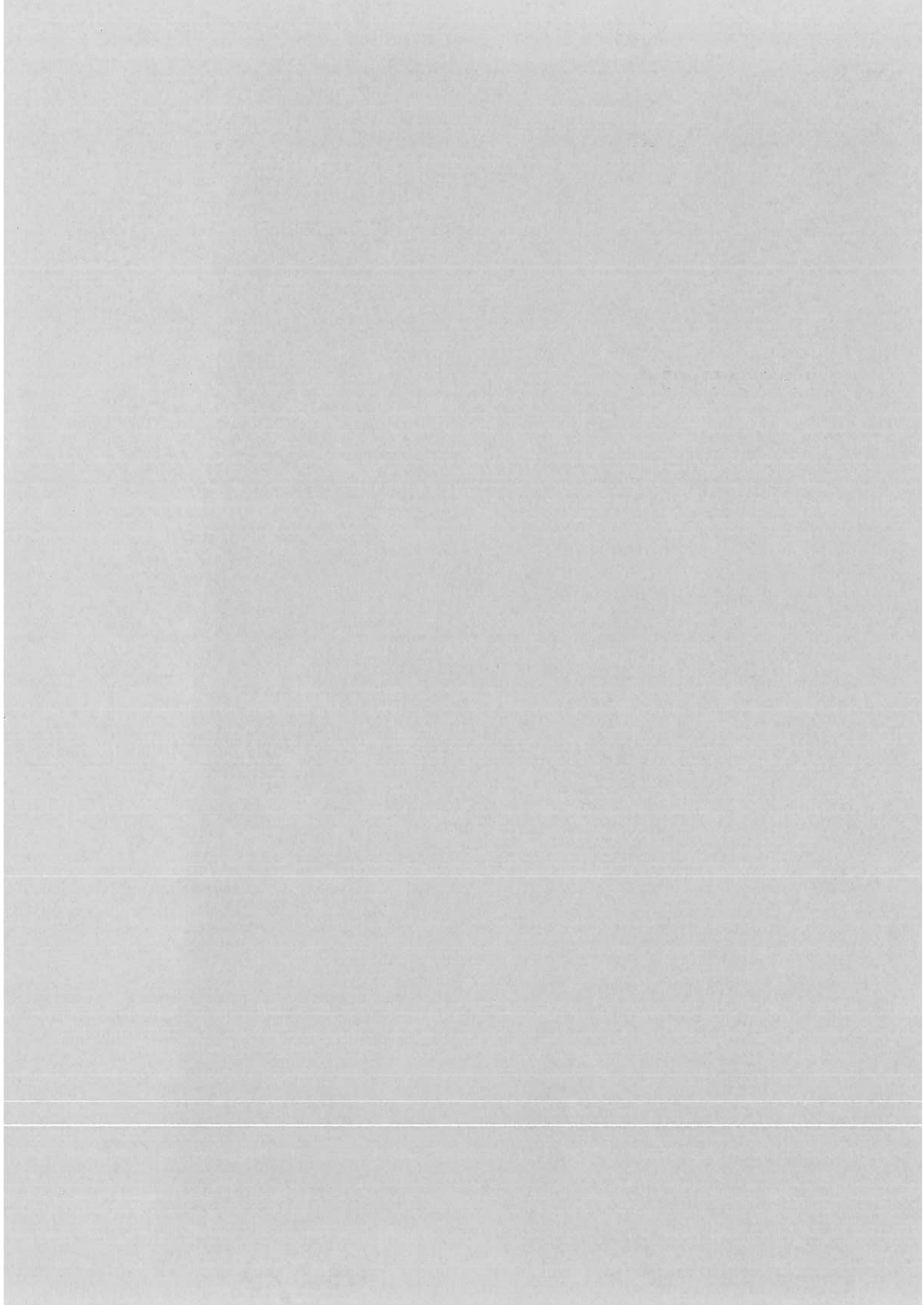


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DET NORSKE INSTITUTT FOR KOSMISK FYSIKK
Nr. 53

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

OBSERVATIONS 1962

1964
A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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OZONE OBSERVATIONS

The table of ozone values of Tromsø covers 9 months and that of Longyear, Svalbard (78.2° 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 Steinar Berger and at Longyear by H. Welde.

LONGYEAR, SVAlBARD TABLE OF OZONE VALUES 1962.

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	—			352	3	17	421	2	6	382	1		—			—			—		
2	—			348	1		418	2	20	375	1		—			—			—		
3	—			374	2	8	—			—			—			—			—		
4	—			346	3	15	457	2	16	389	2	9	—			—			—		
5	—			371	3	3	416	3	7	392	2	0	—			—			—		
6	—			372	3	8	415	2	5	352	3	12	—			—			—		
7	—			414	2	4	423	2	2	332	3	7	—			—			—		
8	—			431	3	7	367	2	5	355	3	17	—			—			—		
9	—			460	1		—			349	2	25	—			—			—		
10	396	2	4	476	1		366	1		—			—			—			—		
11	—			426	2	4	406	2	3	—			—			—			—		
12	381	1		385	2	1	400	1		311	3	9	—			—			264	1	
13	—			379	2	3	415	2	0	356	2	0	—			—			275	1	
14	442	2	10	389	2	6	422	2	8	358	3	7	—			—			284	1	
15	410	2	18	365	3	12	—			339	3	3	—			—			293	2	18
16	398	1		351	3	9	—			376	2	11	—			—			279	1	
17	396	2	16	366	3	7	431	1		352	1		—			—			292	1	
18	396	2	13	382	2	3	428	3	6	—			—			—			351	3	12
19	394	2	15	367	2	7	416	2	1	339	1		—			—			272	2	16
20	373	2	4	347	2	14	393	2	10	354	1		—			—			298	1	
21	365	2	3	333	2	6	—			327	3	19	—			—			320	2	3
22	405	3	4	344	1		418	2	1	338	2	13	—			—			—		
23	405	3	5	344	1		418	2	7	329	2	0	—			—			284	1	
24	401	2	6	343	1		—			—			—			—			—		
25	350	2	4	371	3	19	—			328	2	4	—			—			329	1	16
26	368	3	4	400	2	16	—			—			—			—			377	1	
27	358	1		457	3	20	—			—			—			—			—		
28	373	2	0	415	3	19	424	1		—			—			—			—		
29	381	2	0	403	1		345	2	4	—			—			—			—		
30	381	2	6	434	2	21	358	2	8	—			—			—			—		
31	408	1		—			369	1		—			—			—			—		
Mean	389			385			406			301									351		

TROMSØ
TABLE OF OZONE VALUES 1962.

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.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.
1	—	—	—	—	—	—	—	—	379	1	320	1	208	3	301	1	253	1
2	—	—	—	—	410	1	—	—	390	1	321	5	269	3	296	1	234	1
3	—	—	—	—	356	2	4	—	—	—	302	3	287	2	296	1	—	—
4	—	—	—	—	385	1	—	—	384	1	306	3	300	2	286	2	276	1
5	—	—	—	—	422	1	—	—	—	—	307	6	290	1	277	1	—	—
6	—	—	—	—	—	—	—	—	362	1	296	2	302	3	—	—	242	1
7	—	—	—	—	387	2	17	—	338	2	322	2	306	1	266	2	—	—
8	—	—	—	—	350	2	3	—	337	1	320	1	306	3	249	1	—	—
9	—	—	—	—	363	1	—	—	—	—	294	2	298	2	—	—	—	—
10	—	—	—	—	379	4	13	—	—	—	298	3	302	2	288	1	250	1
11	—	—	—	—	346	2	3	—	—	—	290	2	293	2	276	1	—	—
12	—	—	—	—	—	—	—	—	324	3	286	1	—	—	316	1	—	—
13	—	—	—	—	379	1	—	—	333	2	294	1	321	3	298	1	—	—
14	—	—	—	—	347	1	—	—	298	6	325	1	319	2	316	1	—	—
15	—	—	—	—	352	2	1	—	327	5	—	—	—	—	303	1	—	—
16	—	—	—	—	356	1	—	—	349	2	314	1	—	—	—	—	—	—
17	—	—	—	—	—	—	—	—	—	—	325	3	—	—	273	1	—	—
18	—	—	—	—	378	2	8	—	377	1	330	1	—	—	256	1	—	—
19	—	—	—	—	282	2	0	—	324	4	323	3	—	—	—	—	—	—
20	—	—	—	—	—	—	—	—	303	1	304	2	288	2	—	—	—	—
21	—	—	—	—	424	1	—	—	330	3	308	2	272	1	286	1	—	—
22	—	—	—	—	281	1	—	—	320	3	303	1	265	3	269	1	245	1
23	—	—	—	—	366	2	3	—	322	3	327	3	280	5	280	1	—	—
24	—	—	—	—	384	1	—	—	—	—	323	2	268	1	295	1	—	—
25	—	—	—	—	398	1	—	—	—	—	315	3	296	2	—	—	248	1
26	—	—	—	—	378	1	—	—	—	—	321	3	291	1	265	1	258	1
27	—	—	—	—	416	1	—	—	—	—	326	1	291	2	330	1	283	1
28	—	—	—	—	—	—	—	—	—	—	332	1	286	3	316	1	249	1
29	—	—	—	—	326	1	—	—	—	—	398	1	295	1	322	1	276	1
30	—	—	—	—	—	—	—	—	330	3	316	2	299	1	371	1	237	1
31	—	—	—	—	364	1	—	—	—	—	302	4	309	1	—	—	282	1
Mean:	—	—	—	—	366	—	—	—	322	—	282	—	289	—	293	—	256	—

EARTH MAGNETISM, 1962 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 Grete Brøchmann.

SCALE-VALUES

The following scale-values were determined:

D — curves: 1'.45 or 4.73 *y* per mm.
 H — curves: 5.27 *y* per mm.
 V — curves: 7.25 *y* per mm.

BASE-LINE VALUES

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

The quiet mean Inclination value for 1961 was calculated to 77° 35',3.

The temperature coefficient for the H-variometer is 8.7*y*, and for the V-variometer ÷ 2.3*y* per degree Celsius.

OBSERVED AND ADOPTED BASE-LINE VALUES 1962

D			H			V		
Month	Observed	Adopted	Month	Observ.	Adopt.	Month	Observ.	Adopt.
I	1°32.7' W	1°32.5' W	I	11212	11210	I	50508	50508
III	32.5	32.5	II	11	10	III	10	10
V	32.3	32.2	III	08	08	IV	10	10
VI	32.3	32.3	IV	05	05	V	13	13
VII	32.0	32.0	V	04	05	VI	16	15
IX	32.2	32.0	V	04	05	VI	15	15
X	31.9	32.0	VI	01	02	VIII	14	15
X	32.0	32.0	VII	00	00	IX	12	12
			IX	00	00	X	11	12
			X	02	02	X	11	12

EXPLANATION OF THE TABLES

The hourly mean values of the components are centered at half hours Gr. M. T. The column headed *M* gives the diurnal means. *R* designates the range, i.e. the difference between the maximum and minimum value measured on the magnetogram. The horizontal line *M* gives the monthly means of the hourly values, and the line marked *QM* gives the monthly means of estimated quiet hourly values. In addition to the main tables, resuming tables and figures are given at the end of the year-book.

The "Storminess" tables earlier given have been omitted.

EARTH MAGNETISM 1962 BEAR ISLAND.

By means of the registrations we may give some approximate annual values for 1962.

$$D = 2^\circ 38' \text{ E.}, H = 9230 \text{ } y, V = 52280 \text{ } y.$$

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

K-INDICES FOR THREE-HOUR INTERVAL 1962.

Tromsø

Range 2000 for K = 9. Scale values: D = 4.73 y. H = 5.27 y. V = 7.25 y.

Date	Jan.	Feb.	Mar.	Apr.	May	Jun.
1	3310 0005	0000 0003	0022 2313	0223 4233	5101 1354	4323 3233
2	4223 2222	4100 0144	3210 2231	1201 1256	2422 2345	4111 1234
3	0000 0022	2100 0131	0001 3354	5232 2354	3202 3143	2001 2325
4	1000 0000	2102 6544	4111 1124	4123 1136	2000 0003	6423 4465
5	0000 0001	3400 2220	4012 5543	6401 1001	0001 0103	4213 3245
6	0000 0220	1221 1016	3534 5564	1333 3356	1113 5556	6533 3244
7	0000 0233	5332 3543	3242 2100	6544 5576	4312 2034	2123 3342
8	2100 2320	0011 2102	0000 0000	7533 4755	4110 1234	0011 1113
9	0000 3353	3200 1113	0000 1010	6222 3343	3211 0000	4433 4346
10	4635 5664	2000 1020	4322 4345	3413 5556	2311 2210	6443 3322
11	5332 2344	2201 1166	5432 1353	4533 4545	0111 3454	2212 3324
12	2212 0023	6422 1365	4123 4664	5301 2244	1111 0011	4013 4332
13	3111 1022	3412 2346	5211 2111	4000 1222	1222 3336	2222 1210
14	0001 1545	5311 2277	1012 2251	4000 0023	6423 3255	2222 3225
15	4321 2235	2422 0542	4413 1136	1210 1432	4422 3550	3412 4351
16	2221 2445	1216 6665	1001 1133	4301 3344	2333 2023	5201 2121
17	3221 0220	5333 3242	0101 2100	4422 2322	3011 2102	1001 1101
18	0000 1200	2021 1134	0011 3353	0323 4342	1100 2110	4100 0000
19	1221 4664	0010 1001	4202 5452	4411 1004	1123 3334	0102 2330
20	2100 0023	0001 2023	1012 3345	5211 1323	2111 3310	1011 1220
21	1112 2114	0011 2343	5121 3366	2111 1556	1001 2101	1103 4445
22	1000 0000	2222 3421	1001 0115	7454 3556	2002 2100	5322 2234
23	0000 0010	1212 3344	1002 2101	5433 3312	0111 1100	4433 2463
24	0000 0122	3111 3352	4301 2332	1000 3320	1101 1000	4111 2234
25	0010 0114	2100 2155	4422 2234	0013 3353	0000 0001	4222 3120
26	4001 2343	5111 2344	4300 0000	2133 3115	0000 1134	0122 2333
27	4222 2234	3123 4442	2011 2000	4222 3343	4223 4445	4234 5354
28	1000 0013	0011 2000	0001 2343	3211 3344	4012 4455	3334 4235
29	0202 2205		4412 3010	3202 4333	3412 2112	5523 4344
30	5111 3313		1000 0032	3000 2343	2020 1000	4432 2433
31	1000 0000		4010 0111		0235 6536	
Date	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	3223 3334	6554 4455	4143 4665	5355 5576	3312 2245	3202 2252
2	4111 1355	5312 3362	5644 6566	5544 4544	3301 4466	0001 1032
3	5213 3224	3222 3334	6635 5467	3322 4335	5223 3455	0010 0250
4	3422 4476	2222 2333	6645 3565	4432 2345	5223 4556	0113 4634
5	5433 3266	2213 3231	2433 4556	2010 2375	1133 1023	5111 2323
6	5523 2333	5333 4455	6544 3365	6541 4225	3322 2567	2110 1142
7	3102 2446	6323 4545	4523 3234	3325 2336	5323 4225	1001 1133
8	4422 2245	7434 5456	6632 3223	6434 4555	4121 3444	1011 3343
9	3311 1001	6633 3345	4212 2365	6544 4454	3210 0015	3321 0004
10	3111 3334	5323 3332	5513 2112	5424 5465	3210 0034	2100 0345
11	4122 3334	1100 2110	3213 1014	5544 4365	1222 3454	5322 4476
12	2222 3332	0011 2222	2254 4466	5323 1213	3100 0023	4312 0255
13	4312 2445	1101 1025	6443 3663	1114 4345	3000 0022	4422 4426
14	4332 4434	4312 3244	4432 1344	6454 4466	2000 1373	4532 3365
15	6311 2134	4443 3355	3542 1345	4321 2325	0233 5366	5441 1344
16	4201 2200	7431 2245	4312 2266	5124 4255	6443 4565	2111 1132
17	0001 2102	6323 3356	3112 2235	5322 0013	5311 2200	4112 3656
18	210—	5443 4444	4121 1125	6521 2553	0000 0022	6533 5465
19	—3 3344	5333 4344	4554 4477	2024 4566	0000 0155	6543 4666
20	5433 3254	3111 2224	7532 1121	4222 3355	1000 0003	5533 4666
21	5414 3345	3001 1115	2122 4445	5442 2344	1233 3556	6543 4563
22	5212 2335	5552 3366	5533 4565	3333 5447	6554 4566	3322 2344
23	3232 3253	5533 3343	4443 2234	6523 3555	5434 4345	3220 0001
24	5311 3556	4444 4546	4211 1143	4423 4776	4333 4345	1011 2132
25	6531 2211	5433 3455	0001 3234	6444 4567	4443 3344	2111 1123
26	1555 4466	4122 3222	7732 3564	5435 5576	4112 2121	1111 5556
27	7533 5535	3110 0022	4232 2324	4554 5465	3121 1444	3111 2155
28	5533 3455	1101 2200	2201 3336	5433 3456	5121 2223	1000 1254
29	5321 2333	1333 3366	5234 3456	4323 2435	2011 3263	3100 1333
30	3320 0103	4322 4451	5553 3323	5334 2353	6553 4235	1000 0025
31	2111 1345	6553 4254		2223 3345		5113 4432

K-INDICES FOR THREE-HOUR INTERVAL 1962.

Bear Island

Range 2000 for K = 9. Scale values: D = 5.7 y. H = 6.0 y. V = 21.2 y.

Date	Jan.	Feb.	Mar.	Apr.	May	Jun.
1	4322 1114	0001 0001	1134 3434	2334 3333	43— 33-4	3334 3143
2	4433 3334	4210 1232	4332 3461	2211 3266	4443 3445	2223 1243
3	2101 1153	3212 2343	2212 4554	5342 3444	4334 3244	2112 3335
4	2101 1100	4214 5534	5343 2123	2343 1243	3213 1224	6524 3255
5	0001 0013	3421 3321	2113 6543	5523 1110	2123 —2	3433 4355
6	1211 1331	2332 2135	3554 4564	1434 3356	4— 5445	4353 3333
7	0001 3244	5444 4453	3333 4321	5454 6565	4423 3244	3235 —42
8	3322 3331	2222 2133	3311 1101	6444 5644	3211 3325	1122 2232
9	1202 3344	4221 2232	1001 —2	6343 4453	3312 1121	5354 4444
10	4544 5655	3112 1142	4333 —44	4434 5555	3311 3322	5654 3332
11	3443 3455	3412 3255	4533 2553	5545 4555	2113 3444	3333 4333
12	3432 2142	5333 2365	3344 2244	5512 3455	3223 2223	2324 3223
13	1112 1143	3433 3346	3334 3222	3221 3445	2444 3335	4433 3231
14	2132 3545	5332 3366	2113 3353	4111 2243	5444 4254	3332 2323
15	5444 3344	2423 2662	3334 2115	3422 3432	3323 4552	3434 4334
16	4443 4445	2224 6564	2112 2213	4413 3433	3444 3212	5322 —2
17	3433 2243	4333 2354	2202 3300	2433 4222	2123 2233	2012 2323
18	1221 2321	3222 2133	0113 3465	2443 4343	2212 4332	3312 2131
19	3443 5553	1123 3221	3324 4562	3423 2211	3124 3333	4222 —41
20	2322 3233	0003 3323	2124 3455	4313 2323	3222 4332	2121 —44
21	3521 3214	1123 3543	4334 4455	3221 2456	3113 4332	4431 1232
22	2111 0011	2344 3332	3222 3232	6554 4443	3213 3231	2212 2232
23	0001 0133	2332 4344	4533 3222	4444 3332	2223 3221	3542 3234
24	0011 0244	3333 3565	5423 1345	2112 3332	3312 3221	3222 2233
25	2012 0113	3322 3255	2114 3234	2234 2343	1000 1122	3332 3232
26	4112 3341	5332 3453	4411 1100	3353 4314	1112 3242	2122 —
27	3343 3255	3345 4552	2223 2200	3333 1235	3333 4355	— 4343
28	2222 2123	1123 3221	— 3343	3433 3344	2224 4435	4343 3245
29	3313 3213		5433 3232	3313 3354	4433 3242	4532 3223
30	4333 3415		2102 1042	3223 —3	2131 2122	3521 1312
31	1211 0000		3111 1121		2345 4545	
Date	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	2133 3332	1345 6655	3263 5662	5665 5543	3422 2275	2213 3352
2	4221 1335	4345 3433	5564 6645	5654 4333	2322 2327	1122 1111
3	4421 1333	3443 4344	5566 4555	4334 4434	2224 5375	3422 1211
4	2443 3336	3355 3333	6554 4443	5444 3554	3223 4635	1322 2224
5	4443 3243	4442 4444	4554 5544	3222 4343	2233 2123	2455 2212
6	4433 2432	3444 5344	4555 5544	3332 4335	3432 3455	3223 2221
7	2222 2345	4555 5-5-	4323 3322	3423 2425	4423 4323	2532 2221
8	4422 1112	4535 6443	4333 3332	7344 3766	4222 1233	2232 2232
9	3221 1112	3444 4434	4355 4433	7643 5666	4343 1215	3232 1211
10	3222 3332	3432 3321	3233 3133	4444 5776	4321 1134	2222 2245
11	3434 4344	3233 2222	2223 4365	5644 3645	3342 3433	4432 4365
12	3333 4422	4433 2223	3466 6454	4334 2344	3211 1134	3422 2253
13	3423 34—	2233 4424	3563 4453	2235 4355	4111 1133	63— —
14	5533 2355	3323 3453	3353 4543	6554 5253	3111 1255	— 2355
15	4222 —13	2435 4442	2255 3323	3533 3334	1353 4255	3342 2223
16	2213 —	3354 4444	3424 3466	5434 4355	4443 5554	4322 3243
17	— 243-	3456 3543	3344 4345	3453 1111	4332 3412	4212 3455
18	1144 4442	4533 4434	4232 3234	5533 3453	1111 2244	6532 —
19	3234 —	4344 4444	4464 3573	2134 4656	2222 2355	4443 3344
20	— —	3223 —	5544 3232	4322 3355	2222 2232	4554 —
21	— 4554	— 3444	3343 4543	3554 3453	3443 3643	—34 3343
22	4333 3344	3422 3364	5544 —	5556 5544	5443 3243	4453 2345
23	4443 3344	4432 4643	3333 3422	4354 5654	3343 4464	43— 2211
24	5423 4533	4654 —	2254 1222	4544 5544	3344 3455	— 3221
25	4443 2432	— —	3432 6533	4556 3444	5553 3545	4333 3323
26	2665 4565	— —	3665 3433	4553 4554	5332 3333	3433 3333
27	6654 —	— 2233	3435 3322	5554 4543	3323 2664	3444 2112
28	— 2444	3223 4322	4435 4344	4334 3665	4233 3433	4432 3343
29	2444 3433	2354 4662	3655 5554	5533 2554	3123 4252	3222 3323
30	2335 3431	3334 5722	5544 3332	3344 3354	5534 3455	3332 3322
31	1223 2211	5742 3252		3334 3456		2223 3433

DAYLY SUM OF K-INDICES 1962.

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	18	3	2	13	23	19	24	20	23	24	23	20	38	35	33	33	41	39	22	27	18	21	
2	19	27	14	16	14	26	18	23	21	17	19	21	21	25	29	42	41	35	33	27	23	7	10	
3	4	14	8	20	16	25	26	29	21	27	15	22	21	22	29	42	41	25	33	29	30	8	16	
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7	8	14	28	33	14	22	42	40	19	26	—	22	22	32	—	26	22	27	25	26	25	10	19	
8	10	20	7	17	0	11	39	37	16	20	8	25	17	38	34	27	24	36	40	23	19	16	18	
9	14	19	11	18	2	—	25	32	7	14	31	10	13	33	30	25	31	36	43	12	23	13	15	
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13	11	14	25	29	14	22	11	24	22	28	12	25	—	11	24	35	33	23	29	7	15	28	—	
14	16	25	28	31	14	20	9	18	30	32	20	27	31	23	26	25	30	39	35	16	19	31	—	
15	22	31	21	27	23	22	14	23	25	27	23	21	—	31	28	27	23	22	27	28	28	26	21	
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19	26	32	3	15	24	29	15	18	20	22	11	—	—	29	31	40	36	29	31	11	23	40	29	
20	8	20	8	14	19	26	18	20	12	21	8	—	—	16	—	22	28	26	27	4	17	40	—	
21	13	21	14	22	27	32	22	25	6	20	22	29	—	12	—	24	29	28	32	28	30	36	—	
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24	5	12	19	31	18	27	9	17	4	17	18	29	29	35	—	17	20	37	35	29	31	11	—	
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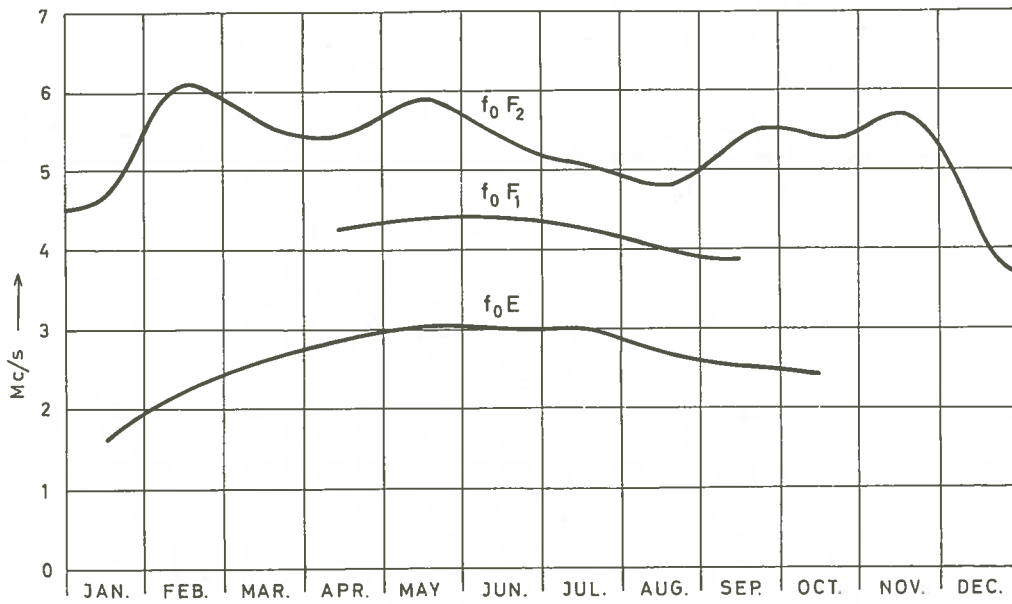
MONTHLY AND ANNUAL MEANS OF MAGNETIC ELEMENTS 1962.

Tromsø

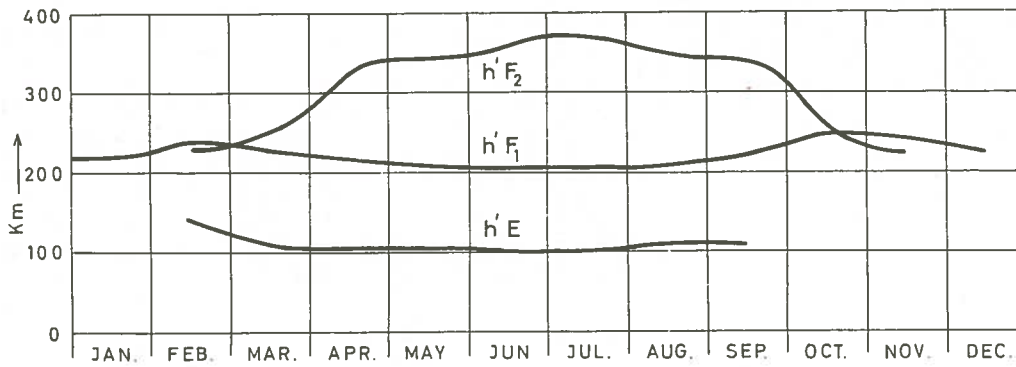
Month	All days			Five Quiet			Five Disturbed		
	D	H	V	D	H	V	D	H	V
	0°W+	11100+	50900+	0°W+	11100+	50900+	0°W+	11100+	50900+
Jan.	1'.8	135	115	1'.8	137	117	0'.7	120	102
Feb.	1.5	127	111	2.2	134	119	2.1	120	92
Mar.	1.8	128	126	2.4	134	125	2.1	129	116
Apr.	0.6	115	132	1.0	134	128	0.8	84	137
May	1.5	131	129	2.1	140	128	1.0	126	124
Jun.	1.5	129	130	2.1	139	133	0.9	122	130
Jul.	0.0	108	132	1.0	124	131	-2.5	87	130
Aug.	-0.3	106	147	1.0	126	144	-2.5	76	161
Sep.	-2.1	92	151	-0.5	122	152	-4.2	68	155
Oct.	-3.7	97	150	-2.5	107	152	-5.1	70	151
Nov.	-2.5	120	150	-1.0	130	148	-4.5	100	134
Dec.	-1.5	117	149	-0.2	133	153	-5.8	57	131
Year	-0.1	117	135	-0'.8	130	136	-1'.4	97	130

ANNUAL MEANS OF THE MAGNETIC ELEMENTS
1930—1962.

Year	D	H	V
1930	4°7'.7W	115 67	—
31	3°59.6	49	501 98
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	47
51	0°54.1	43	93
52	43.9	44	507 11
53	36.0	53	24
54	29.1	65	44
55	24.0	72	76
56	18.1	73	508 25
57	15.9	82	68
58	12.7	94	509 02
59	8.1	96	35
1960	3.9	97	80
61	2.1	112 14	510 04
62	-0.1	17	35



MONTHLY MEDIAN NOON-VALUES (12^h MET) FOR THE CRITICAL FREQUENCES AND THE VIRTUAL HEIGHTS FOR THE E-LAYER, F₁-LAYER AND F₂-LAYER.



RADIO ECHO OBSERVATIONS 1962.

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

Table for APRIL 1962. Columns: DAY (1-30), 1-25, M, R. Rows: Daily magnetic data for April 1962.

Table for MAY 1962. Columns: DAY (1-31), 1-25, M, R. Rows: Daily magnetic data for May 1962.

Table for JUNE 1962. Columns: DAY (1-30), 1-25, M, R. Rows: Daily magnetic data for June 1962.

Tromsø. Declination. D = 0° W + Tabular Quantities expressed in Tenths of Minutes.

Gr. M. T.

JULY 1962.

HOURLY MEAN VALUES

Table for July 1962 showing hourly mean values for declination. Columns include Day (1-31), hours (1-24), and summary rows M and QM.

AUGUST 1962.

Table for August 1962 showing hourly mean values for declination. Columns include Day (1-31), hours (1-24), and summary rows M and QM.

SEPTEMBER 1962.

Table for September 1962 showing hourly mean values for declination. Columns include Day (1-30), hours (1-24), and summary rows M and QM.

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

Table for October 1962 showing hourly mean values for days 1-31. Columns include Day, hours 1-23, M, and R. Values range from -156 to 3284.

Table for November 1962 showing hourly mean values for days 1-30. Columns include Day, hours 1-23, M, and R. Values range from -86 to 822.

Table for December 1962 showing hourly mean values for days 1-31. Columns include Day, hours 1-23, M, and R. Values range from -113 to 999.

Tromsø.

Horizontal Intensity. $H = 11100 +$ Tabular Quantities expressed in Gamma.

Gr. M. T.

JULY 1962.

HOURLY MEAN VALUES

Table for July 1962 showing hourly mean values for horizontal intensity. Columns include Day (1-31), hours (1-24), M, and R. Includes summary rows M and QM.

222

AUGUST 1962.

Table for August 1962 showing hourly mean values for horizontal intensity. Columns include Day (1-31), hours (1-24), M, and R. Includes summary rows M and QM.

220

SEPTEMBER 1962.

Table for September 1962 showing hourly mean values for horizontal intensity. Columns include Day (1-30), hours (1-24), M, and R. Includes summary rows M and QM.

227

Tromsø.

Vertical Intensity. $V = 50900 +$ Tabular Quantities expressed in Gamma.

Gr. M. T.

JANUARY 1962.

HOURLY MEAN VALUES

Table for JANUARY 1962 showing hourly mean values for vertical intensity. Columns include DAY (1-31), hours (1-24), M, and R.

FEBRUARY 1962.

Table for FEBRUARY 1962 showing hourly mean values for vertical intensity. Columns include DAY (1-28), hours (1-24), M, and R.

MARCH 1962.

Table for MARCH 1962 showing hourly mean values for vertical intensity. Columns include DAY (1-31), hours (1-24), M, and R.

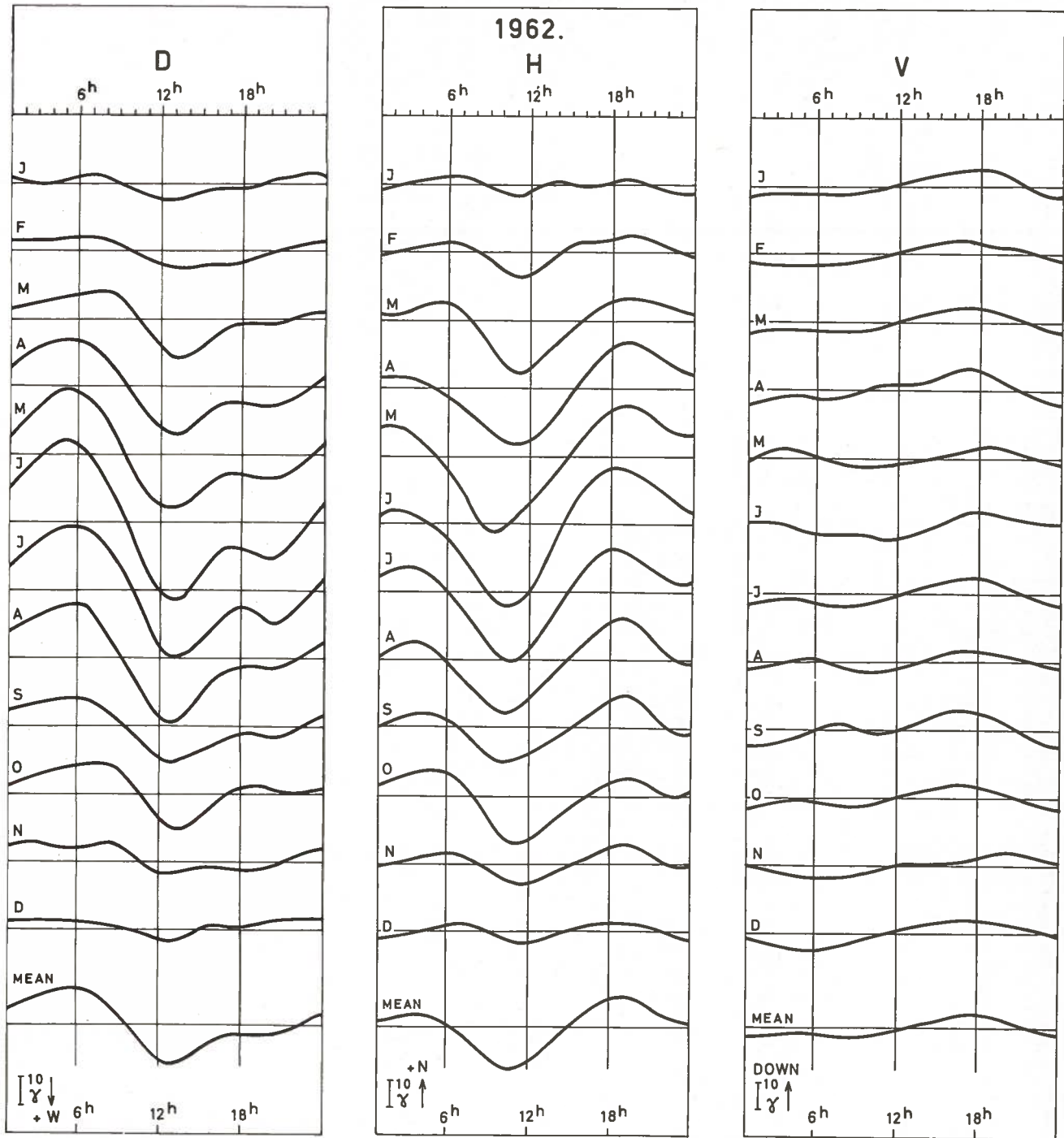


Fig. 1. The Quiet Diurnal Variation, smoothed Values.

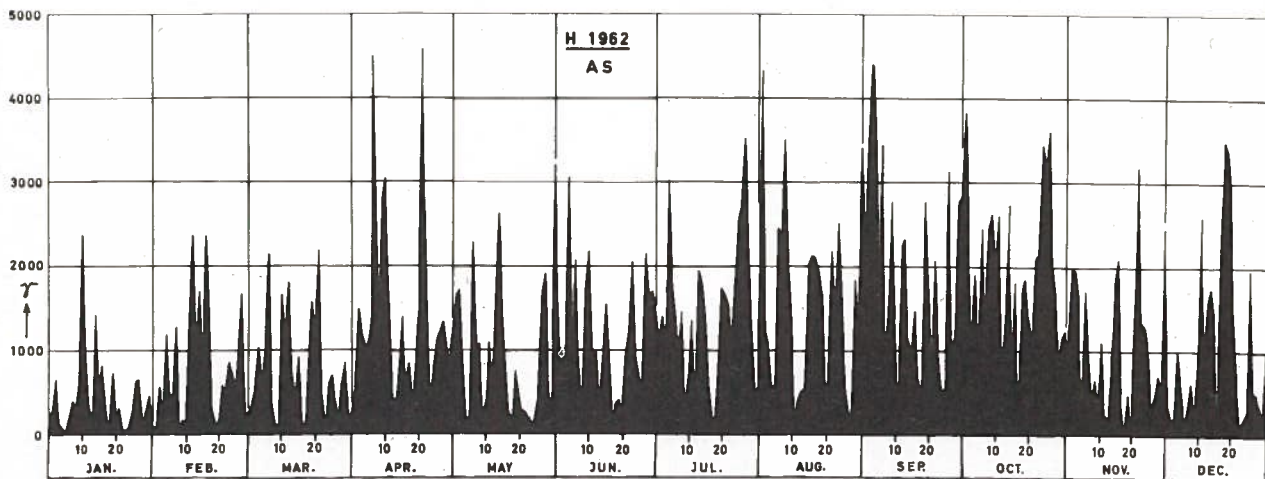


Fig. 2. The Diurnal Sum of the Absolute Storminess of H.

