

Publikasjoner fra  
DET NORSKE INSTITUTT FOR KOSMISK FYSIKK  
Nr. 17

**THE AURORAL OBSERVATORY AT TROMSØ**

( $\varphi = 69^{\circ} 39'.8$  N.  $\lambda = 18^{\circ} 56'.9$  E. Gr.)

**RESULTS OF MAGNETIC OBSERVATIONS  
FOR THE YEAR 1938**

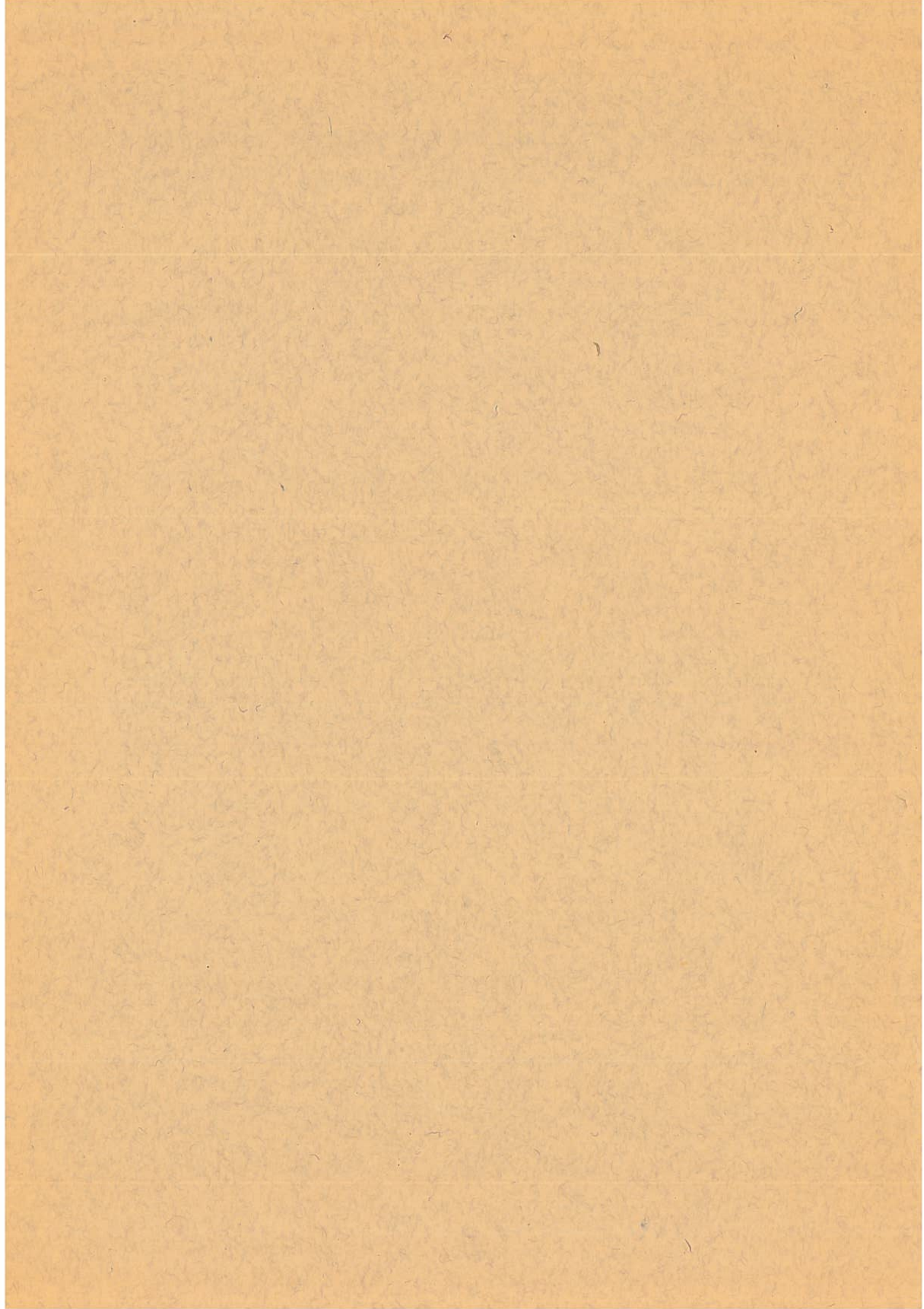
BY

LEIV HARANG and E. TØNSBERG

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1939

A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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GENERAL REMARKS

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

The observations were made by E. TØNSBERG. The reading of the hourly values and the calculation work were performed by Miss ANNA PEDERSEN.

SCALE VALUES

The following scale-values have been determined:

D-curves: 1'.45 or 4.78  $\gamma$  per mm  
H-curves: ..... 5.10  $\gamma$  per mm  
V-curves: ..... 6.80  $\gamma$  per mm

BASE-LINE VALUES

The absolute measurements of Declination and Horizontal Intensity result in the table given below of observed and adopted base-line values. The Vertical Intensity base-line value — 50 220  $\gamma$  — from the preceding years is still employed, as we are trusting more to the stability of the V-variometer than to the accuracy of the Inclination measurements. The mean Inclination value through the years is  $77^{\circ} 18'.4$ .

The temperature coefficient for the H-variometer is 8.0  $\gamma$  per degree Celsius and for the V-variometer  $-1.3 \gamma$  per degree Celsius.

#### OBSERVED AND ADOPTED BASE-LINE VALUES FOR D AND H.

Date	D observed	D adopted	H observed	H adopted
I 29.	2° 46'.3 W.	2° 46'.2 W.	11 402 $\gamma$	11 398 $\gamma$
II 7.	.3	.2	11 399	98
23.	.3	.2	98	98
III 10.	.8	.2	97	98
31.	.2	.2	99	98
IV 12.	.2	.2	96	98
26.	45.9	.2	99	98
V 2.	.9	.2	99	98
VIII 1.	46.3	.2	11 401	98
10.	46.5	.2		
16.	45.8	.2	11 395	98

#### 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 centred 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 manetogram. The horizontal line marked  $M$  gives the monthly means of the *quiet* hourly values.

The second series of the 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 No. 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  $C$  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 the 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 the 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 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.

#### ERRATA

In the year-book for 1937 the scale values on fig. 1. are 5  $\gamma$  and 1'.5 respectively and not 10  $\gamma$  and 3' as printed.

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# TABLES

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Tromsø. Declination. D = 2° W + Tabular Quantities expressed in Tenths of Minutes.

Gr. M. T.

JANUARY 1938.

HOURLY MEAN VALUES

Table for January 1938 showing hourly mean values for declination. Columns include Day (1-31), hours (1-24), and values (M, R).

FEBRUARY

Table for February showing hourly mean values for declination. Columns include Day (1-28), hours (1-24), and values (M, R).

MARCH

Table for March showing hourly mean values for declination. Columns include Day (1-31), hours (1-24), and values (M, R).



Tromsø.

Declination. Storminess (+ W). Unit Gamma.

Gr. M. T.

JANUARY 1938.

HOURLY MEAN VALUES

Table for January 1938 showing hourly mean values for declination, storminess, and unit gamma. Columns include Day (1-31), M, PS, NS, AS, MPS, and MNS.

FEBRUARY

Table for February showing hourly mean values for declination, storminess, and unit gamma. Columns include Day (1-29), M, PS, NS, AS, MPS, and MNS.

MARCH

Table for March showing hourly mean values for declination, storminess, and unit gamma. Columns include Day (1-31), M, PS, NS, AS, MPS, and MNS.



Tromsø. Declination. D = 2° W + Tabular Quantities expressed in Tenths of Minutes.

Gr. M. T.

APRIL 1938.

HOURLY MEAN VALUES

Table for April 1938 showing hourly mean values for declination D = 2° W. Columns include Day (1-30), hours (1-24), and summary rows M and QM.

MAY

Table for May showing hourly mean values for declination D = 2° W. Columns include Day (1-31), hours (1-24), and summary rows M and QM.

JUNE

Table for June showing hourly mean values for declination D = 2° W. Columns include Day (1-30), hours (1-24), and summary rows M and QM.



Tromsø.

Declination. Storminess (+ W). Unit Gamma.

Gr. M. T.

APRIL 1938.

HOURLY MEAN VALUES

Table for April 1938 showing hourly mean values for declination and storminess. Columns include Day (1-30), 25 numbered columns (1-25), M, PS, WS, AS.

MAY

Table for May 1938 showing hourly mean values for declination and storminess. Columns include Day (1-31), 25 numbered columns (1-25), M, PS, WS, AS.

JUNE

Table for June 1938 showing hourly mean values for declination and storminess. Columns include Day (1-30), 25 numbered columns (1-25), M, PS, WS, AS.



Tromsö. Declination. D = 2° W + Tabular Quantities expressed in Tenths of Minutes.

Gr. M. T.

Table for July 1938 showing hourly mean values for declination. Columns include Day (1-31), hours (1-24), and values (M, R).

AUGUST

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

SEPTEMBER

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



Tromsø.

Declination. Storminess (+ W). Unit Gamma.

Gr. M. T.

JULY 1938.

HOURLY MEAN VALUES

Table with columns DAY, 1-23, M, PS, NS, AS for July 1938. Includes sub-rows for MPS and MNS.

AUGUST

Table with columns DAY, 1-23, M, PS, NS, AS for August 1938. Includes sub-rows for MPS and MNS.

SEPTEMBER

Table with columns DAY, 1-23, M, PS, NS, AS for September 1938. Includes sub-rows for MPS and MNS.



Tromsø. Declination. D = 2° W + Tabular Quantities expressed in Tenths of Minutes.

Gr. M. T.

OCTOBER 1938.

HOURLY MEAN VALUES

Table for October 1938 showing hourly mean values for declination D = 2° W. Columns include DAY, 1-25, M, and R. Rows list days from 1 to 31, with summary rows for M and QM.

NOVEMBER

Table for November 1938 showing hourly mean values for declination D = 2° W. Columns include DAY, 1-25, M, and R. Rows list days from 1 to 30, with summary rows for M and QM.

DECEMBER

Table for December 1938 showing hourly mean values for declination D = 2° W. Columns include DAY, 1-25, M, and R. Rows list days from 1 to 31, with summary rows for M and QM.



Tromsø.

Declination. Storminess (+ W). Unit Gamma.

Gr. M. T.

OCTOBER 1938.

HOURLY MEAN VALUES

Table for October 1938 showing hourly mean values for declination, storminess, and unit gamma. Columns include Day (1-31), M, PS, NS, AS.

NOVEMBER

Table for November showing hourly mean values for declination, storminess, and unit gamma. Columns include Day (1-30), M, PS, NS, AS.

DECEMBER

Table for December showing hourly mean values for declination, storminess, and unit gamma. Columns include Day (1-31), M, PS, NS, AS.



Tromsø.

Horizontal Intensity. H = 11300 + Tabular Quantities expressed in Gamma.

Gr. M. T.

JANUARY 1938.

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	-70	70	35	50	20	30	70	62	55	45	55	60	63	58	58	60	65	110	135	115	55	-15	0	67	52	450
2	90	55	50	75	70	80	70	58	50	47	42	58	80	130	180	140	115	115	-30	-50	10	55	20	68	510	
3	-130	35	50	45	55	58	58	48	48	45	48	50	58	105	150	210	150	100	60	20	80	75	50	63	455	
4	58	60	20	15	45	63	70	55	55	68	60	140	60	-25	265	115	42	35	-115	-80	-170	30	-20	30	860	
5	-110	40	40	45	42	40	70	60	45	40	42	45	52	48	45	42	42	47	48	53	58	70	60	42	265	
6	53	52	52	55	57	60	60	59	55	52	48	48	58	60	60	75	135	15	60	65	68	55	20	20	56	
7	15	-180	-40	40	35	60	75	65	62	62	55	50	57	75	180	330	230	230	-80	-325	-125	-170	-15	70	31	
8	0	-120	-250	-160	-170	20	35	75	105	95	70	45	42	42	40	42	45	49	45	63	65	-30	-55	-305	-9	
9	-300	-95	-140	-195	-110	10	55	60	53	62	55	50	45	70	72	77	70	57	60	25	60	50	40	42	10	
10	10	12	30	25	50	55	70	62	52	45	40	48	50	53	48	52	53	58	80	40	50	40	50	42	46	
11	-10	48	57	57	55	53	53	53	53	52	52	52	52	52	60	110	125	83	110	180	110	75	50	50	66	
12	60	55	50	45	48	52	55	45	60	65	55	52	50	60	75	150	385	140	70	130	75	0	-670	-340	33	
13	-250	-190	-240	-215	-290	-190	50	90	105	82	83	60	50	60	85	140	130	120	-40	-200	-185	-10	0	20	-28	
14	25	32	42	50	40	50	50	40	30	50	50	45	85	165	80	58	53	47	55	20	-45	-43	43	43	385	
15	5	20	28	43	60	52	35	27	25	62	55	45	70	60	55	60	85	105	20	-65	120	30	-170	-185	27	
16	-20	40	60	58	52	58	60	53	55	55	47	100	102	200	170	290	285	265	185	20	-185	-295	-430	-480	31	
17	-50	-110	85	185	225	-90	95	20	-290	140	150	330	250	180	-190	-85	210	225	70	-60	-175	-430	-190	-20	18	
18	5	10	10	20	-60	-10	35	50	30	30	20	40	50	70	115	170	60	-90	60	-290	-225	-270	-125	-11	805	
19	-120	20	60	35	25	65	55	50	45	70	45	145	110	190	185	120	220	65	-25	85	30	15	20	25	61	
20	30	35	30	25	-10	-220	-85	5	15	30	40	85	115	140	215	110	145	60	-180	-90	40	85	30	45	29	
21	-30	35	15	-190	-160	40	45	25	35	60	165	100	125	230	350	370	370	30	130	160	90	-125	-300	-710	37	
22	-380	-495	-670	-380	70	50	-100	30	380	-315	-60	0	-20	75	0	-85	-330	-65	-210	-25	-250	-110	0	-121	1320	
23	-70	-80	0	-10	-5	15	25	20	25	25	40	60	50	35	40	35	35	35	55	60	15	-90	-400	-2	585	
24	-490	-320	-210	-130	-55	53	45	30	25	40	45	50	55	68	80	100	95	60	80	90	-20	-35	-110	50	-21	
25	-135	-100	-80	50	60	60	35	22	50	33	30	50	210	300	480	370	115	-170	-450	-420	-540	-250	-470	-575	-55	
26	-130	-270	-265	-60	60	115	100	80	30	65	55	85	60	90	155	130	185	60	-210	5	45	30	25	10	16	
27	0	10	12	35	40	38	35	28	30	45	55	40	32	42	60	135	85	80	-30	-95	45	10	-90	-125	21	
28	20	50	50	20	25	70	60	40	40	35	30	32	32	60	105	45	42	48	45	57	-60	-125	25	30	32	
29	35	56	35	37	10	-30	60	55	45	40	60	45	25	60	48	50	52	58	65	75	-70	-160	-270	-265	4	
30	-50	-25	-70	25	65	52	50	45	40	45	38	35	38	50	48	52	57	100	-35	-70	-20	35	0	23		
31	-170	-55	50	62	50	48	48	42	40	60	75	105	85	135	140	190	335	220	105	45	-180	-540	-60	10	35	
M	-68	-42	-36	-8	13	28	46	47	46	43	53	67	72	88	108	124	129	66	23	-6	-38	-77	-90	-97	20	
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FEBRUARY

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	53	42	50	35	35	50	35	40	40	40	40	45	120	270	180	95	95	60	52	50	-65	-305	-80	-200	32
2	-110	-55	-20	-70	10	50	55	50	60	60	70	105	90	75	42	63	55	60	110	80	30	25	20	39	480
3	-50	-175	-85	30	0	-15	-5	-10	20	53	65	62	85	75	100	160	40	130	60	-90	-105	-30	-40	-125	7
4	-175	-90	40	55	75	50	45	60	48	60	60	55	45	65	135	130	65	72	60	85	70	65	40	-170	39
5	-180	-50	-115	-80	30	45	48	70	55	40	35	35	60	75	100	95	95	120	175	120	78	65	48	32	44
6	60	20	42	58	40	-290	-470	-10	30	40	60	65	130	125	85	170	0	-10	-170	-90	-210	-310	-90	-44	1130
7	-175	-320	-230	35	115	75	90	60	65	60	62	105	145	145	105	155	155	90	87	-80	-35	5	0	-15	28
8	25	50	45	48	48	50	52	48	22	30	45	40	45	55	140	110	-270	-120	35	-330	-450	-80	-20	-14	1260
9	-20	-20	-270	-440	-380	-115	50	25	35	70	100	160	245	290	355	195	250	95	-40	-10	40	20	12	-20	26
10	-30	-240	-220	-600	-350	-360	-110	75	85	45	48	75	80	85	45	38	42	45	42	37	30	10	-12	-160	-50
11	-140	-300	-420	-620	-400	-230	-150	110	160	125	80	60	60	60	170	170	115	70	65	40	30	5	-18	-36	1245
12	-20	38	40	50	50	35	32	45	20	35	40	35	90	88	65	48	43	78	85	40	-25	-75	-70	-70	34
13	-65	-20	40	70	55	58	50	50	50	32	35	50	130	145	85	75	120	145	100	-50	-170	-105	-35	50	37
14	-60	-15	-80	20	45	30	5	10	0	25	80	120	165	150	320	60	-15	-160	-50	-10	30	40	10	7	32
15	10	30	30	28	28	30	30	28	28	23	20	20	20	20	28	30	35	37	40	52	40	25	0	20	27
16	10	38	40	45	48	45	40	32	30	20	20	18	25	32	40	42	42	47	47	47	38	-45	-25	23	165
17	25	53	50	50	50	47	30	28	28	23	20	22	22	32	40	45	48	58	68	55	43	-15	-25	35	140
18	-40	30	38	5	40	53	45	30	28	35	40	30	62	75	80	55	50	45	43	40	32	20	-40	35	210
19	-15	38	42	47	48	47	43	35	28	22	22	27	33	38	40	40	43	45	48	48	45	48	47	37	140
20	52	52	52	52	48	40	40	32	30	28															



Tromsø.

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

Gr. M. T.

JANUARY 1938.

HOURLY MEAN VALUES

Table for January 1938 showing magnetic observations. Columns include DAY (1-31), 24 hourly values (1-24), M, PS, NS, AS, and CH. Data values range from -220 to 240.

FEBRUARY

Table for February 1938 showing magnetic observations. Columns include DAY (1-28), 24 hourly values (1-24), M, PS, NS, AS, and CH. Data values range from -105 to 240.

MARCH

Table for March 1938 showing magnetic observations. Columns include DAY (1-31), 24 hourly values (1-24), M, PS, NS, AS, and CH. Data values range from -205 to 240.



Tromsø. Horizontal Intensity. H = 11300 + Tabular Quantities expressed in Gamma.

Gr. M. T.

APRIL 1938.

HOURLY MEAN VALUES

Table for April 1938 showing hourly mean values for horizontal intensity. Columns include Day (1-30), hours (1-24), and monthly totals (M, R). Values range from -87.5 to 135.

MAY

Table for May showing hourly mean values for horizontal intensity. Columns include Day (1-31), hours (1-24), and monthly totals (M, R). Values range from -160 to 245.

JUNE

Table for June showing hourly mean values for horizontal intensity. Columns include Day (1-30), hours (1-24), and monthly totals (M, R). Values range from -175 to 350.



Tromsø.

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

Gr. M. T.

APRIL 1938.

HOURLY MEAN VALUES

Table for April 1938 showing magnetic intensity and storminess data for Tromsø. Columns include Day (1-30), M, PS, NS, AS, CH, and summary rows for M, PS, NS, AS, CH, M, PS, NS, AS, CH, M, PS, NS, AS, CH.

MAY

Table for May 1938 showing magnetic intensity and storminess data for Tromsø. Columns include Day (1-31), M, PS, NS, AS, CH, and summary rows for M, PS, NS, AS, CH, M, PS, NS, AS, CH, M, PS, NS, AS, CH.

JUNE

Table for June 1938 showing magnetic intensity and storminess data for Tromsø. Columns include Day (1-30), M, PS, NS, AS, CH, and summary rows for M, PS, NS, AS, CH, M, PS, NS, AS, CH, M, PS, NS, AS, CH.



Tromsø. Horizontal Intensity. H = 11300 + Tabular Quantities expressed in Gamma.

Gr. M. T.

Table for July 1938 showing hourly mean values for horizontal intensity. Columns include Day (1-31), hours (1-24), and monthly totals (M, R). Values range from -90 to 350.

Table for August showing hourly mean values for horizontal intensity. Columns include Day (1-31), hours (1-24), and monthly totals (M, R). Values range from -105 to 350.

Table for September showing hourly mean values for horizontal intensity. Columns include Day (1-30), hours (1-24), and monthly totals (M, R). Values range from -145 to 350.



Tromsø.

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

Gr. M. T.

JULY 1938.

HOURLY MEAN VALUES

Table for July 1938 showing magnetic observations. Columns include Day (1-31), M, PS, NS, AS, CH, and MNS. Data points are numerical values representing magnetic intensity and storminess.

AUGUST

Table for August 1938 showing magnetic observations. Columns include Day (1-31), M, PS, NS, AS, CH, and MNS. Data points are numerical values representing magnetic intensity and storminess.

SEPTEMBER

Table for September 1938 showing magnetic observations. Columns include Day (1-30), M, PS, NS, AS, CH, and MNS. Data points are numerical values representing magnetic intensity and storminess.



Tromsø. Horizontal Intensity. H = 11300 + Tabular Quantities expressed in Gamma.

Gr. M. T.

Table for October 1958 showing hourly mean values for horizontal intensity. Columns include Day (1-31), hours (1-24), and monthly totals (M, R). Values range from -175 to 320.

Table for November showing hourly mean values for horizontal intensity. Columns include Day (1-30), hours (1-24), and monthly totals (M, R). Values range from -270 to 190.

Table for December showing hourly mean values for horizontal intensity. Columns include Day (1-31), hours (1-24), and monthly totals (M, R). Values range from -180 to 465.



Tromsø.

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

Gr. M. T.

OCTOBER 1938.

HOURLY MEAN VALUES

Table for October 1938 showing hourly mean values for magnetic intensity and storminess. Columns include Day, hours 1-24, M, PS, NS, AS, and CH. Includes summary rows for M, NPS, and MNS.

NOVEMBER

Table for November 1938 showing hourly mean values for magnetic intensity and storminess. Columns include Day, hours 1-24, M, PS, NS, AS, and CH. Includes summary rows for M, NPS, and MNS.

DECEMBER

Table for December 1938 showing hourly mean values for magnetic intensity and storminess. Columns include Day, hours 1-24, M, PS, NS, AS, and CH. Includes summary rows for M, NPS, and MNS.



Tromsø. Vertical Intensity.  $V = 50300 +$  Tabular Quantities expressed in Gamma.

Gr. M. T.

JANUARY 1938.

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	30	0	-5	5	5	-25	-20	-5	0	10	0	10	20	18	18	17	17	22	-20	-15	-30	-70	10	5	0	286
2	15	20	20	10	15	25	18	20	15	20	20	25	18	35	75	72	75	70	5	-5	-20	5	15	-30	22	279
3	10	-15	5	10	17	20	13	15	18	18	20	20	25	35	38	-10	-5	5	0	-5	25	15	-10	12	184	
4	20	10	-20	-60	-55	-15	10	20	17	15	30	35	55	-80	-110	-75	65	45	45	70	15	-55	-20	120	4	578
5	165	0	15	0	12	-8	25	25	23	37	38	30	25	25	27	25	25	25	25	25	25	22	12	22	27	265
6	25	22	18	17	17	15	15	15	12	12	15	17	40	35	38	-15	-95	-75	-40	-10	-80	-5	-20	-2	354	
7	-10	-50	-60	-35	-8	-20	0	10	18	18	18	20	25	28	20	-100	5	-25	-45	-100	50	55	-40	0	-9	428
8	75	90	0	-220	-60	-90	-50	0	15	30	30	30	20	18	20	22	20	25	30	0	25	35	15	4	639	
9	210	-20	105	-50	-90	-70	-50	-25	-5	5	20	20	25	30	50	35	40	40	28	20	18	25	10	15	16	496
10	20	-5	-17	-5	5	5	15	22	22	23	27	26	25	35	25	25	27	27	25	30	15	10	15	10	17	82
11	-5	-10	15	15	15	15	15	17	17	15	15	25	25	25	45	48	42	40	30	13	10	-5	10	18	182	
12	18	20	20	17	17	10	-2	15	15	20	25	22	22	18	30	10	-270	-350	-170	20	10	90	250	10	-6	1027
13	70	120	170	230	235	-10	-65	-15	-5	25	30	25	25	45	70	60	15	15	40	75	60	0	15	10	52	496
14	10	10	12	20	8	-2	8	18	30	30	42	45	38	38	73	45	22	28	28	20	-10	30	-30	-25	20	197
15	20	10	7	-5	10	0	15	15	18	18	27	35	40	45	35	30	27	10	-10	-145	-105	20	85	20	9	354
16	-30	-15	7	10	10	5	8	0	5	15	18	40	62	75	70	10	-90	-80	0	10	80	-90	-40	-300	-8	655
17	10	450	650	450	360	500	45	290	180	40	25	20	-340	-340	-380	-380	-110	10	65	-10	160	120	55	62	1074	
18	35	25	50	25	15	-10	5	35	30	30	35	45	42	35	5	-40	-130	-10	0	-180	-35	220	20	20	11	782
19	30	-20	30	30	5	30	35	42	60	65	55	20	20	5	-25	-120	-230	-800	0	40	45	35	30	30	1	524
20	25	20	20	10	15	-105	-45	-5	12	20	35	50	10	-75	-35	5	-65	10	-40	-95	-40	-5	140	-6	517	
21	40	20	18	90	-60	-25	25	30	70	30	-20	55	40	-90	-150	-60	-140	-155	-55	-10	85	140	360	10	1027	
22	140	170	-15	-170	-110	160	360	90	70	70	-200	-340	-220	-180	-150	-230	-125	-140	-170	-10	60	30	10	45	-31	1013
23	95	110	50	45	25	20	45	55	55	70	65	50	70	65	57	45	45	45	30	20	-35	-5	40	90	48	456
24	55	165	-70	-100	-60	30	55	20	35	40	40	50	50	40	40	55	30	-60	-50	-75	-75	25	50	100	16	866
25	-10	-185	-205	-40	20	25	30	35	40	42	40	48	125	60	-380	-60	-310	-100	120	-20	-30	10	600	150	3	1265
26	110	385	250	110	5	30	80	100	120	110	90	70	75	65	65	60	25	30	-60	30	20	20	35	60	78	721
27	58	50	48	58	60	60	55	60	60	65	60	78	60	60	78	10	60	30	-90	-30	20	80	45	10	44	347
28	-20	10	55	45	30	35	50	42	42	48	48	53	60	50	90	55	45	40	45	38	-30	30	-5	30	37	286
29	30	-5	25	25	20	-22	-10	20	18	35	55	60	50	45	45	45	45	45	40	50	50	55	165	110	43	544
30	20	35	40	-20	30	50	40	40	40	40	40	48	48	48	50	48	48	55	30	-30	10	82	85	33	931	
31	40	-60	-20	25	28	30	20	25	50	40	35	75	65	60	65	-250	-245	5	75	55	240	280	35	55	31	972
M	42	44	36	18	17	25	22	32	35	34	24	25	22	13	0	-17	-40	-25	-3	-2	5	32	52	39	18	544
QM	20	19	18	17	16	15	16	17	17	16	18	19	20	22	23	25	25	25	25	24	23	22	21	20	20	20

FEBRUARY

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	30	40	30	35	30	40	42	40	40	43	47	40	60	10	40	40	45	35	50	10	0	-75	30	10	30	394
2	15	50	50	20	-25	10	5	20	35	40	40	60	45	60	45	45	35	25	10	-5	-20	10	45	28	238	
3	30	-55	-40	5	5	-10	25	-10	-10	30	20	25	45	70	65	55	-85	-60	-25	-40	5	20	30	90	8	449
4	-5	-110	-10	20	60	40	25	40	38	45	45	50	50	45	50	60	60	55	40	-40	15	40	15	-10	25	265
5	-40	-70	-70	-45	-10	10	20	25	28	35	42	40	30	45	70	50	65	70	40	55	65	50	40	25	24	190
6	-30	-30	10	5	-60	110	-165	-180	-40	20	30	48	62	45	50	-40	-80	-155	-15	-60	10	170	130	100	-3	639
7	175	-40	-50	-60	30	35	40	35	38	38	45	70	125	55	45	30	55	30	-10	-80	-10	-5	-10	-29	435	
8	-5	20	28	25	22	20	27	32	40	37	37	42	30	40	28	10	-140	-300	-170	-140	390	120	100	90	16	1102
9	170	200	310	40	80	-10	-25	-5	30	45	70	70	10	-75	80	75	5	-60	-70	30	0	20	30	100	41	680
10	155	90	70	170	0	-275	-130	-25	15	40	35	45	70	80	65	50	45	48	32	30	28	15	0	-55	25	904
11	-80	110	-70	100	50	20	-10	35	75	80	40	60	55	60	70	75	25	-10	25	52	45	38	28	35	714	
12	50	28	40	42	48	35	38	35	42	45	60	65	45	50	102	78	60	55	50	15	40	50	70	130	53	238
13	45	63	52	40	30	25	38	33	32	45	62	72	70	90	100	80	55	40	50	0	60	-80	0	20	43	286
14	110	90	30	-5	15	20	10	25	30	45	90	25	-85	-240	-225	-210	-125	0	20	-10	-5	80	105	65	-6	734
15	40	40	48	48	48	45	45	45	45	47	47	48	48	55	53	52	50	50	48	45	25	30	40	40	45	68
16	35	38	42	48	42	50	45	45	45	48	42	42	45	48	48	47	45	47	45	45	40	20	-30	-55	36	136
17	25	30	38	40	40	40	38	40	40	42	45	45	45	47	48	48	48	48	45	53	40	30	50	52	42	116
18	10	15	20	0	5	30	33	35	48	48	38	50	45	33	38	38	37	35	35	35	38	15	28	28	31	358
19	30	30	30	33	33	30	20	28	28	32	32	32	35	30	30	75	45	45	40	30	10	-5	10	-5	15	156
20	-30	0	28	30	32	38	38	40	40	38	35	30	30	60	65	75	60	40	35	35	30	28	28	25	35	189
21	22	27	28	28	28	30	30	30	30	30	30	30	30	30	30	30	30	30	28	28	28	28	27	25	29	34
22	25	27	28	28	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	28	102
23	-10	0	-90	-105	-40	-15	-15	0	15	15	35	30	20	45	55	-50	-85	20	0	-5	30	70	55	-10	0	333
24	-35	-10	30	30	25	20	15	0	30	35	35	45	30	38	38	30	25	-10	20	30	-50	-35	25	17	184	
25	-5	10	25	28	28	20	22	25	30	30	20	45	30	55	40	-110	-145	-35	-95	180	55	40	45	43	16	666
26	50	25	22	20	35	30	30	30	30	30	32	28	30	55	60	55	55	20	20	60	30	-15	75	300	60	442
27	5	30	25	5	30	30	30	30	32	35	35	35	45	60	90	78	55	0	-10	25	30	-20	-75	-10		



Tromsø.

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

Gr. M. T.

JANUARY 1938.

HOURLY MEAN VALUES

Table for January 1938 showing hourly mean values for vertical intensity and storminess. Columns include Day (1-31), hours (1-24), and summary statistics (M, PS, NS, AS).

FEBRUARY

Table for February showing hourly mean values for vertical intensity and storminess. Columns include Day (1-28), hours (1-24), and summary statistics (M, PS, NS, AS).

MARCH

Table for March showing hourly mean values for vertical intensity and storminess. Columns include Day (1-31), hours (1-24), and summary statistics (M, PS, NS, AS).



Tromsø.

Vertical Intensity.  $V = 50300 +$  Tabular Quantities expressed in Gamma.

Gr. M. T.

APRIL 1938.

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	-20	5	28	33	55	33	36	37	52	20	20	28	40	45	45	52	50	30	15	-5	20	25	25	27	116	
2	27	27	28	30	32	35	38	38	40	33	28	28	27	28	30	28	25	25	25	20	20	15	12	-5	26	68
3	20	20	-20	5	25	28	28	28	28	25	23	40	70	90	100	85	60	22	10	30	20	20	32	20	34	143
4	20	5	-10	-32	-40	-25	20	15	30	50	60	80	35	48	60	50	70	65	38	35	20	25	18	10	27	150
5	15	25	28	28	28	30	30	37	37	40	40	40	40	37	30	28	30	30	35	27	28	28	17	13	30	48
6	10	-12	-25	-30	-60	-75	-55	10	30	85	60	43	25	70	70	56	48	45	25	50	90	55	25	60	25	279
7	40	290	145	20	-90	-115	20	20	28	28	25	45	105	75	100	85	75	45	40	42	33	75	48	45	51	571
8	40	22	20	28	30	32	32	32	35	40	60	70	50	40	48	50	42	30	27	25	15	20	0	10	33	116
9	28	32	32	35	30	30	30	30	33	38	40	32	5	-20	85	65	40	42	28	-25	-25	-5	55	-25	25	211
10	-70	-30	5	25	25	25	25	28	28	40	65	85	90	70	-5	30	50	50	50	40	38	30	23	31	190	
11	30	30	35	35	28	28	30	30	30	45	35	60	80	55	40	40	0	-110	-10	30	110	155	0	-5	52	462
12	28	45	50	48	42	40	28	20	30	38	43	65	65	65	55	50	38	28	28	10	18	25	23	39	82	
13	30	15	10	20	30	35	30	33	33	40	48	38	65	80	110	125	-85	-15	-5	30	-20	40	380	400	61	1006
14	210	210	220	-60	-50	60	40	80	80	85	80	75	110	120	110	-50	70	105	60	70	82	100	70	90	82	952
15	70	195	55	30	30	40	50	45	40	40	30	50	45	90	70	45	55	50	43	28	0	-75	-65	-10	40	415
16	40	-25	-10	20	35	55	380	400	60	130	45	100	-25	-40	-170	-35	-10	-130	-5	10	0	110	105	-30	42	1224
17	5	30	40	50	60	60	60	70	60	50	42	40	50	60	35	15	18	35	45	75	70	180	180	175	63	408
18	230	90	-60	-15	25	35	60	70	90	60	50	45	50	58	73	52	15	60	10	0	85	30	80	110	55	762
19	90	-80	-110	-5	15	20	30	52	48	60	50	50	60	56	45	60	62	50	-5	30	10	-5	0	60	27	517
20	-40	-10	25	35	38	45	55	48	48	40	40	38	43	30	50	52	60	62	48	35	120	40	30	15	39	279
21	5	0	5	25	8	10	20	30	48	40	40	30	22	48	60	70	65	38	30	12	5	10	55	40	30	245
22	60	50	25	-5	-20	-15	8	20	33	40	50	43	25	65	67	60	45	25	-10	25	65	115	83	110	40	333
23	160	5	-10	10	20	25	28	60	125	70	28	-120	-270	-320	-340	-160	-50	-25	110	130	195	130	120	-13	741	
24	170	105	-20	-10	20	28	30	50	55	50	50	55	75	98	65	55	30	45	10	50	-55	10	40	15	42	394
25	40	20	5	-115	-100	-90	-15	25	45	60	60	60	55	65	70	45	-30	-90	50	75	120	180	70	125	30	619
26	-5	-30	-55	0	37	40	43	50	48	58	30	75	85	110	95	90	52	45	45	40	36	35	33	42	224	
27	38	42	42	47	45	48	40	38	38	40	40	40	42	45	38	40	48	50	40	37	30	33	25	40	61	
28	5	22	30	33	38	38	37	33	30	38	40	30	42	70	70	60	65	60	50	50	43	40	38	28	42	82
29	38	40	40	40	37	27	30	30	30	28	28	30	38	32	30	30	30	30	28	27	25	20	20	31	41	
30	35	37	38	40	40	38	35	35	30	32	39	45	60	78	90	85	85	65	35	10	40	45	30	20	45	109
M	45	39	20	12	13	19	41	50	44	47	43	42	39	44	44	38	32	26	26	35	38	38	54	52	37	362
QM	53	34	35	35	35	34	33	32	32	33	34	35	36	37	37	37	37	36	36	35	35	34	33	33	35	

MAY

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	35	43	48	48	40	38	30	28	27	30	30	23	28	30	33	33	25	20	20	5	32	-10	20	29	136	
2	13	23	30	5	5	30	38	35	37	32	50	55	85	30	115	70	62	45	30	25	30	20	-20	38	177	
3	-33	-10	40	38	40	5	-30	5	13	30	72	70	105	135	113	60	-65	-10	60	60	75	95	255	235	57	476
4	260	280	120	205	28	-5	20	50	65	60	55	30	27	-200	-175	-260	25	0	-5	20	110	110	170	48	43	857
5	50	130	190	145	-20	30	38	40	43	42	55	45	42	45	45	-5	-95	-90	-23	105	45	80	280	40	52	564
6	-10	-30	-35	5	30	43	22	30	38	45	45	40	63	40	65	80	70	55	55	50	42	42	35	38	36	163
7	40	38	37	37	37	35	38	32	42	38	35	45	60	70	68	58	15	60	60	43	38	38	37	37	43	82
8	45	48	48	48	43	40	28	32	35	30	27	23	20	90	70	50	40	57	50	38	20	45	53	42	122	
9	55	50	58	48	50	50	47	45	45	45	43	43	48	60	60	60	60	48	38	38	30	115	95	52	211	
10	50	70	5	10	20	25	20	30	30	30	30	30	52	85	78	60	50	47	45	28	30	40	35	30	59	184
11	32	28	-35	-75	-50	5	28	30	36	48	60	40	70	73	75	60	10	-35	270	170	320	600	250	280	96	1040
12	600	160	75	110	150	290	-20	-10	-25	-10	48	75	50	55	38	10	-20	-45	15	170	95	105	295	430	110	789
13	330	85	13	10	65	52	50	50	55	65	70	95	80	93	98	85	75	70	60	70	60	70	45	76	517	
14	-15	5	-60	-205	-100	5	17	8	35	50	45	-170	-235	-90	-180	-15	90	60	20	75	90	155	275	430	13	857
15	270	-120	-5	-10	30	-15	5	45	67	58	70	58	40	80	80	70	42	5	70	85	70	82	120	45	52	476
16	42	20	48	35	35	0	0	10	30	40	38	80	60	35	-40	30	90	65	35	-35	20	40	75	100	58	374
17	130	20	-20	-60	-45	5	45	40	42	45	65	50	55	80	60	58	45	15	20	80	75	50	80	39	381	
18	30	0	5	20	25	20	30	30	30	45	30	35	55	52	62	53	40	40	40	30	33	27	30	35	95	35
19	38	5	30	40	38	37	35	28	28	28	28	30	35	55	55	48	45	40	40	35	50	25	8	33	88	
20	0	5	30	40	38	37	35	28	28	28	28	30	35	55	55	48	45	40	40	35	50	25	8	33	61	
21	12	28	20	15	25	35	28	22	22	40	30	45	25	30	40	50	68	57	53	50	40	32	32	38	55	61
22	38	38	40	35	33	28	30	32	32	32	42	42	60	70	80	60	52	35	25	25	28	28	5	-7	116	
23	15	20	23	30	33	25	25	25	25	25	25	25	25	30	30	27	25	80	20	22	30	33	38	38	27	41
24	38	38	38	37	35	27	20	18	18	20	25	40	28	60	95	73	5	-20	28	40	70	175	305	305	63	490
25	60	-40	10	25	0	20	23	23	22	42	48	48	55	53	58	60	52	35	30	40	38	33	42	38	34	184
26	30	32	20	0	10	-15	-15	15	18	25	25	28	38	40	37	30	25	28	27	27	28	28	30	30	23	61
27	33	32	30	25	10	25	25	25	25	25	27	30	55	70	70	65	27	0	35	37	33	60	-20	38	156	
28	45	30	25	40	35	20	25	25	-5	15	30	50	15	90	-25	-170	-95	15	0	45	40	5	30			



Tromsö.

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

Gr. M. T.

APRIL 1938.

HOURLY MEAN VALUES

Table for April 1938 showing magnetic observations. Columns include Day (1-30), 24-hour values (1-24), M, PS, NS, AS, MPS, and MNS.

MAY

Table for May 1938 showing magnetic observations. Columns include Day (1-31), 24-hour values (1-24), M, PS, NS, AS, MPS, and MNS.

JUNE

Table for June 1938 showing magnetic observations. Columns include Day (1-30), 24-hour values (1-24), M, PS, NS, AS, MPS, and MNS.



Tromsø.

Vertical Intensity.  $V = 50300 +$  Tabular Quantities expressed in Gamma.

Gr. M. T.

JULY 1938.

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	40	70	20	-5	-25	-90	-35	10	32	70	45	30	50	72	58	70	-10	-30	12	18	75	170	300	290	52	550	
2	-40	-10	-35	25	25	70	-45	-25	10	30	45	70	80	90	60	57	88	30	57	45	35	20	28	25	28	313	
3	28	28	28	28	30	25	25	30	30	30	35	35	33	40	38	28	30	40	47	50	40	35	33	30	33	41	
4	28	28	20	-20	-30	-40	-20	-8	20	40	70	77	-40	-230	-35	-5	15	0	-70	60	100	290	120	40	17	904	
5	55	50	60	25	15	-22	-5	12	27	30	30	18	42	70	60	10	48	62	58	72	60	65	40	45	39	204	
6	40	30	25	30	15	5	8	-5	10	40	50	52	65	55	60	80	55	40	32	40	40	15	30	40	35	156	
7	45	50	40	40	38	30	40	45	45	30	22	18	20	63	75	50	30	30	38	30	10	35	20	10	35	109	
8	30	30	0	-30	-10	0	20	18	0	20	50	45	100	125	80	90	80	65	60	30	30	20	40	40	39	211	
9	38	30	25	25	25	20	20	25	28	18	25	38	30	38	48	50	45	20	30	15	-40	0	120	20	29	292	
10	80	-5	30	18	20	60	40	20	35	40	43	40	75	90	120	62	40	5	-40	60	70	55	80	90	47	524	
11	250	58	70	18	15	18	15	17	18	23	20	20	18	20	37	30	30	28	28	28	25	23	23	25	35	435	
12	28	27	25	25	20	20	18	18	15	10	10	20	20	23	25	22	28	20	27	25	25	25	28	22	41	27	150
13	25	25	25	28	28	30	30	27	20	15	10	10	5	15	20	40	38	28	22	13	0	10	15	30	90	54	612
14	95	215	280	235	-55	-25	5	20	25	28	22	20	25	105	58	20	30	30	12	10	10	15	30	90	54	612	
15	120	90	65	-5	15	23	38	55	100	78	75	80	30	-300	-370	-190	-220	-25	200	135	190	275	270	220	40	1068	
16	320	250	10	-60	20	58	50	35	52	50	70	55	10	80	100	50	-40	50	10	120	48	100	175	15	68	660	
17	45	40	20	28	20	35	50	60	58	40	40	40	50	78	60	70	58	75	62	48	48	40	50	40	35	255	
18	125	-10	-35	0	10	25	25	35	22	40	50	70	72	65	38	20	25	30	40	48	50	40	30	30	35	255	
19	30	30	35	28	18	18	0	25	50	38	40	45	80	80	82	75	65	50	48	42	40	40	20	45	43	156	
20	55	50	0	0	10	25	30	28	30	40	55	55	50	75	100	80	67	50	60	72	55	50	80	50	48	136	
21	17	10	20	28	30	35	38	38	52	50	42	60	63	78	85	87	30	53	48	42	35	38	25	42	109		
22	10	0	-25	-30	-10	-10	28	20	30	40	30	42	40	60	70	55	60	60	50	40	20	42	45	30	38	211	
23	55	12	-15	20	33	33	33	35	35	35	35	45	60	80	97	80	60	5	18	35	38	38	30	39	136		
24	32	18	20	22	30	30	28	25	25	27	30	30	40	42	65	50	62	60	50	40	28	30	35	35	35	102	
25	35	33	30	30	28	25	25	20	20	20	18	25	68	100	100	97	78	58	45	30	25	25	25	28	41	109	
26	28	30	30	35	25	23	20	20	18	20	22	25	40	40	50	32	30	20	20	15	10	-40	10	53	109		
27	25	25	28	30	30	25	20	20	15	15	20	20	35	30	25	30	28	25	22	20	17	15	24	34	54	257	
28	25	30	30	30	28	20	17	10	10	25	20	60	130	155	95	80	48	48	45	30	27	95	40	45	265		
29	50	150	110	-120	-70	190	260	270	160	185	190	180	110	70	140	150	85	50	58	50	210	290	210	220	131	537	
30	190	75	-5	13	25	15	5	-3	-5	-5	-5	35	40	30	40	55	57	57	50	40	38	38	35	35	37	313	
M	61	46	30	16	11	22	25	29	32	34	41	42	43	42	49	47	32	33	37	43	44	60	65	58	67	300	
QM	28	29	30	30	28	27	25	23	23	25	27	28	30	32	33	35	37	37	36	35	33	32	30	28	29		

AUGUST

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	30	38	20	16	10	30	20	30	25	55	70	80	95	108	10	-25	-170	-120	55	55	40	150	230	390	50	768
2	150	250	345	370	190	-40	-5	15	30	50	40	50	70	87	55	80	30	-20	20	160	150	280	195	230	115	694
3	240	80	-115	-30	20	20	28	30	35	40	38	38	40	42	45	48	42	45	25	40	60	250	150	225	58	762
4	170	90	42	25	20	65	150	215	260	140	45	20	-5	-40	10	-40	-70	15	25	50	92	110	70	310	74	707
5	290	165	265	120	-55	-60	-30	20	45	40	45	62	78	20	-90	-40	-150	-65	100	115	160	30	90	80	51	864
6	200	60	40	-5	20	18	22	40	30	58	48	48	53	77	80	73	65	50	50	20	35	60	90	110	54	326
7	-25	-40	-25	-10	-10	10	30	60	70	80	80	80	78	100	65	0	32	45	15	40	48	50	45	38	35	211
8	38	40	40	45	30	22	28	30	30	20	40	50	65	110	95	70	55	40	30	0	25	30	25	25	41	170
9	25	38	40	35	30	25	20	20	25	25	25	25	33	40	50	50	48	38	28	28	20	5	-10	29	75	
10	25	28	28	35	10	25	15	-10	5	30	10	20	30	30	25	30	15	30	35	18	28	25	17	20	22	68
11	105	40	-30	-45	-20	5	15	20	55	125	100	-20	-365	-250	-220	-275	-185	-5	-10	-35	25	65	120	20	-32	687
12	40	73	25	32	30	25	30	38	40	38	35	35	48	40	42	45	50	60	40	38	30	35	30	30	39	122
13	30	35	38	40	40	33	30	22	18	15	15	18	20	30	40	40	38	35	30	30	22	20	22	25	29	48
14	-25	12	35	30	28	22	25	30	30	30	25	22	20	20	30	35	38	35	25	25	28	23	23	24	88	
15	28	50	32	35	35	30	28	20	18	20	10	10	30	38	38	40	38	38	30	28	38	-20	27	95	27	95
16	28	28	30	30	25	20	25	25	25	18	25	25	28	38	40	30	22	18	20	22	25	15	0	-2	23	61
17	10	18	80	80	22	20	20	20	23	30	25	40	50	75	105	128	100	65	50	33	42	67	42	42	44	143
18	40	-20	-10	10	18	20	25	28	30	35	35	45	48	70	82	60	40	30	27	30	32	28	28	32	170	
19	35	30	27	20	5	-5	-2	10	20	28	30	35	60	75	77	70	72	30	52	60	40	38	20	27	36	88
20	20	27	28	20	5	-2	25	22	28	28	30	55	50	40	30	30	33	33	38	38	30	28	27	25	31	48
21	28	28	25	28	28	28	23	20	20	18	12	10	20	72	60	45	20	-25	-5	35	12	50	45	-15	24	190
22	5	28	28	28	20	10	15	15	18	20	30	35	30	-10	20	-110	-100	0	35	50	160	175	70	25	442	
23	100	90	78	-10	-130	-40	0	25	60	160	120	70	40	40	55	60	70	55	38	38	25	30	27	27	42	422
24	30	30	55	40	40	40	40	32	30	30	30	40	50	50	38	35	30	28	20	25	25	105	80	38	190	
25	0	75	25	10	-7	15	20	25	25	25	28	30	30	40	45	45	38	38	-10	10	25	28	25	45	26	204
26	12	30	40	38	38	40	35	30	22	18	25	30	40	40	40	28	30	33	30	20	20	12	-70	25	136	
27	-30	10	15	22	28	30	33	30	23	30	35	28	35	35	33	40	47	38	28	18	20	15	-20	-10	82	96
28	20	28	30	35	30	30	28	25	20	20																



Tromsö.

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

Gr. M. T.

JULY 1938.

HOURLY MEAN VALUES

Table for July 1938 showing magnetic observations. Columns include DAY (1-31), hours (1-24), M, PS, NS, AS. Summary rows for M, MPS, and MNS are at the bottom.

AUGUST

Table for August 1938 showing magnetic observations. Columns include DAY (1-31), hours (1-24), M, PS, NS, AS. Summary rows for M, MPS, and MNS are at the bottom.

SEPTEMBER

Table for September 1938 showing magnetic observations. Columns include DAY (1-30), hours (1-24), M, PS, NS, AS. Summary rows for M, MPS, and MNS are at the bottom.



Tromsø.

Vertical Intensity. V = 50300 + Tabular Quantities expressed in Gamma.

Gr. M. T.

OCTOBER 1938.

HOURLY MEAN VALUES

Table for OCTOBER 1938 showing hourly mean values for vertical intensity. Columns: DAY, 1-25, M, R. Rows: 1-31. Summary row: M (69-71), QM (40-43).

NOVEMBER

Table for NOVEMBER showing hourly mean values for vertical intensity. Columns: DAY, 1-25, M, R. Rows: 1-30. Summary row: M (48-51), QM (38-44).

DECEMBER

Table for DECEMBER showing hourly mean values for vertical intensity. Columns: DAY, 1-25, M, R. Rows: 1-31. Summary row: M (43-59), QM (30-35).



Tromsø.

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

Gr. M. T.

OCTOBER 1938.

HOURLY MEAN VALUES

Table for October 1938 showing magnetic observations for Tromsø. Columns include Day (1-31), hours (1-24), and magnetic intensity values (M, PS, NS, AS).

NOVEMBER

Table for November 1938 showing magnetic observations for Tromsø. Columns include Day (1-30), hours (1-24), and magnetic intensity values (M, PS, NS, AS).

DECEMBER

Table for December 1938 showing magnetic observations for Tromsø. Columns include Day (1-31), hours (1-24), and magnetic intensity values (M, PS, NS, AS).



Resuming Tables.

Diurnal Variation.  
QUIET VALUES.

Tromsø.

Declination. Unit Gamma. + West.

1938.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	-2	-2	-2	-4	-6	-6	-4	-3	-2	1	3	6	8	8	6	4	3	2	1	0	-1	-1	-2	-2
FEBRUARY	-1	-2	-4	-7	-9	-9	-8	-7	-6	-4	1	6	8	8	6	6	5	4	3	2	1	1	1	1
MARCH	-1	-4	-6	-11	-14	-15	-15	-14	-9	-2	8	9	11	11	10	9	8	6	5	4	3	2	1	1
APRIL	-4	-6	-11	-14	-18	-21	-21	-19	-14	-4	6	12	17	17	16	14	12	11	9	7	6	2	-3	-6
MAY	-8	-15	-20	-23	-25	-25	-23	-16	-6	4	14	17	19	18	17	17	16	15	12	5	0	-3	-5	
JUNE	-11	-15	-20	-23	-25	-25	-21	-15	-10	-5	5	14	20	20	19	17	16	15	14	12	9	5	0	-6
JULY	-13	-16	-23	-25	-28	-28	-26	-21	-11	-1	9	19	24	24	22	20	19	17	15	14	12	7	0	-8
AUGUST	-8	-12	-15	-18	-20	-20	-17	-10	-3	8	15	23	25	25	17	12	8	7	5	3	2	0	-2	-5
SEPTEMBER	-8	-12	-15	-18	-22	-22	-18	-12	-5	3	10	17	20	20	18	15	12	10	7	5	2	-2	-3	-6
OCTOBER	-4	-5	-6	-7	-9	-9	-7	-4	-1	3	6	9	11	11	10	9	8	6	4	3	1	-2	-4	-6
NOVEMBER	-2	-2	-3	-4	-6	-6	-4	-2	1	3	4	5	6	6	6	5	4	3	2	1	-1	-2	-3	-4
DECEMBER	-2	-3	-4	-5	-7	-7	-4	0	1	3	4	5	6	6	6	5	4	3	2	1	0	-2	-3	-4
MEAN	-6	-8	-11	-13	-16	-16	-14	-10	-5	1	7	11	16	16	13	11	10	8	7	5	3	1	-2	-4

Horizontal Intensity. Unit Gamma.

JANUARY	4	5	6	6	4	2	-1	-3	-4	-6	-9	-11	-11	-8	-6	-4	-1	2	4	5	6	6	6	4
FEBRUARY	8	10	11	11	8	6	3	-2	-7	-10	-17	-19	-18	-12	-9	-4	0	1	3	5	6	6	6	6
MARCH	9	9	8	7	6	4	-1	-6	-13	-19	-26	-21	-18	-14	-9	-3	4	7	12	14	14	13	12	11
APRIL	11	11	8	6	3	-2	-7	-12	-19	-26	-29	-24	-16	-9	-2	3	8	13	16	16	14	13	11	8
MAY	9	9	6	4	1	-6	-10	-16	-21	-25	-28	-20	-11	-3	4	10	12	14	15	15	14	12	10	9
JUNE	11	11	10	9	8	3	-5	-9	-17	-22	-27	-22	-17	-9	-2	5	8	10	11	11	10	9	8	8
JULY	6	8	8	6	1	-7	-14	-16	-19	-21	-22	-17	-12	-6	1	8	13	18	19	19	16	11	6	3
AUGUST	2	4	4	2	0	-3	-8	-15	-18	-21	-23	-20	-13	-10	-3	2	10	19	22	22	19	12	4	-1
SEPTEMBER	4	5	6	6	4	2	-3	-9	-18	-21	-23	-19	-13	-6	1	6	11	14	16	16	12	9	4	1
OCTOBER	5	6	7	7	6	4	-1	-8	-15	-18	-21	-20	-16	-8	-1	5	9	12	12	10	7	6	5	4
NOVEMBER	1	3	4	6	6	4	3	-2	-6	-11	-16	-14	-9	-6	-4	-2	1	3	4	6	6	6	4	3
DECEMBER	-3	-1	1	2	2	1	0	-1	-5	-4	-5	-4	-3	-1	1	2	4	5	5	4	2	1	0	0
MEAN	6	7	7	6	4	1	-4	-8	-13	-17	-21	-18	-13	-8	-3	2	7	9	11	12	9	9	6	5

Vertical Intensity. Unit Gamma.

JANUARY	0	-1	-2	-3	-4	-5	-5	-4	-3	-3	-2	-2	-1	0	2	3	5	5	5	4	3	2	1	0
FEBRUARY	-3	-2	-1	-1	-2	-3	-4	-3	-1	1	2	3	4	4	4	3	2	2	1	1	0	-1	-1	-1
MARCH	-1	0	1	2	2	1	0	0	1	2	2	3	3	4	4	3	2	1	0	-2	-3	-4	-5	-5
APRIL	-2	-1	0	0	0	-1	-2	-3	-3	-2	-1	0	1	2	2	2	2	1	1	0	0	-1	-2	-2
MAY	0	1	2	2	2	0	-3	-5	-7	-6	-5	-3	-2	0	2	3	3	3	3	2	2	1	0	0
JUNE	3	3	2	1	0	-1	-4	-7	-7	-6	-5	-5	-2	-1	1	3	4	6	6	4	3	2	1	1
JULY	-1	0	1	1	-1	-2	-4	-6	-6	-4	-2	-1	1	3	4	6	8	8	7	6	4	3	1	-1
AUGUST	-4	-2	1	3	3	1	-4	-7	-7	-5	-4	-2	0	1	3	4	5	6	6	3	0	-2	-4	-7
SEPTEMBER	-2	-1	0	0	-2	-4	-5	-7	-7	-6	-5	-2	0	3	4	5	6	8	8	6	5	3	1	0
OCTOBER	-3	-2	-1	-1	-1	-1	-2	-3	-3	-1	0	1	2	3	4	5	5	5	4	4	2	0	-3	-5
NOVEMBER	-6	-5	-4	-2	-2	-2	-3	-4	-2	3	4	5	6	6	6	5	4	3	1	0	-2	-4	-5	-6
DECEMBER	-3	-2	-1	-1	-1	-3	-4	-5	-6	-5	-3	2	4	6	7	7	7	5	2	0	-1	-3	-4	-5
MEAN	-2	-1	0	0	-1	-2	-3	-4	-4	-3	-2	0	2	3	4	4	5	4	4	2	1	0	-2	-3

Monthly Means.

DECLINATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
DIRECT VALUES. $D = 2^{\circ}W + \dots$	45.3	44.7	45.9	45.9	45.3	45.3	45.0	44.1	42.3	40.5	42.9	42.3	44.1
QUIET VALUES. $D_0 = 2^{\circ}W + \dots$	49.0	47.7	46.8	45.9	44.4	44.4	43.5	43.5	43.2	43.2	42.6	42.6	45.2
RANGE	121	82	158	83	93	52	75	68	78	89	62	68	86
QUIET RANGE	14	17	26	38	44	45	52	45	42	20	12	13	31
STORMINESS, MEAN (UNIT $\gamma$ ).	-12	-4	-6	-1	-3	4	2	2	-1	-9	0	-1	-2
DIURNAL SUM PS (UNIT $\gamma$ ).	216	185	148	250	254	240	228	238	191	132	157	160	198
NS	505	273	289	264	294	138	190	199	277	356	167	186	262
AS	721	458	437	514	528	378	418	437	469	488	323	346	460
HORIZONTAL INTENSITY.													
DIRECT VALUES. $H = 11300 + \dots$	20	24	20	37	27	29	44	29	17	7	22	22	24.8
QUIET VALUES. $H_0 = 11300 + \dots$	46	42	41	39	38	37	44	38	36	33	34	33	38.4
RANGE	710	540	442	480	492	350	436	406	499	513	378	455	475
QUIET RANGE	17	30	40	45	43	38	41	45	39	33	22	10	34
STORMINESS, MEAN (UNIT $\gamma$ ).	-26	-17	-21	-1	-12	-8	0	-7	-20	-25	-10	-11	-13
DIURNAL SUM PS (UNIT $\gamma$ ).	556	474	360	780	645	445	698	490	476	459	292	357	503
NS	1184	884	870	812	922	638	694	651	942	1060	568	610	820
AS	1739	1358	1230	1693	1665	1084	1392	1141	1418	1519	860	967	1322
VERTICAL INTENSITY.													
DIRECT VALUES. $V = 50200 + \dots$	18	25	28	37	42	27	87	36	48	51	44	37	40.0
QUIET VALUES. $V_0 = 50200 + \dots$	20	26	27	35	35	29	29	32	37	43	44	43	33.3
RANGE	544	378	349	362	333	214	300	289	357	406	291	296	343
QUIET RANGE	10	8	9	5	10	13	14	15	10	12	13	11	11
STORMINESS, MEAN (UNIT $\gamma$ ).	-3	-1	1	3	7	-2	10	4	11	6	0	-5	3
DIURNAL SUM PS (UNIT $\gamma$ ).	511	325	343	386	489	284	454	387	576	476	305	246	397
NS	573	364	313	324	324	311	206	291	321	333	303	355	335
AS	1083	688	656	711	813	574	660	679	897	810	608	601	732



Resuming Tables.

Storminess.

Tromsö.

Declination. Unit Gamma. + West.

1938.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
JAN	MPS	12	2	0	1	1	2	3	3	3	3	3	3	6	9	10	26	28	24	23	20	14	5	15
FEB	MPS	3	0	0	1	4	2	4	3	1	2	2	8	11	14	16	16	23	19	23	14	5	2	3
MAR	MPS	4	1	0	0	0	1	3	4	4	5	6	13	11	10	11	11	13	15	15	13	6	2	0
APR	MPS	3	2	2	3	5	3	12	16	7	7	9	13	14	15	15	19	24	24	21	16	13	5	2
MAY	MPS	3	3	5	1	1	2	4	1	3	4	7	10	13	17	20	21	24	25	22	17	20	9	2
JUN	MPS	2	2	1	2	2	2	2	3	8	12	20	20	16	14	14	13	16	20	22	17	19	13	6
JUL	MPS	3	1	0	1	3	4	4	4	3	6	8	7	9	8	11	18	25	22	21	26	23	12	5
AUG	MPS	1	1	0	1	1	2	2	4	4	3	10	10	9	8	16	16	21	24	31	31	23	14	7
SEP	MPS	1	1	1	3	2	5	3	3	3	4	7	7	9	11	11	19	25	21	20	20	12	2	1
OCT	MPS	0	0	0	1	2	2	2	2	3	4	7	9	10	9	11	13	12	17	12	8	5	2	1
NOV	MPS	1	0	0	0	1	3	3	3	3	3	4	8	12	12	12	12	24	22	16	9	4	1	1
DEC	MPS	0	0	1	1	2	5	4	1	1	2	3	4	5	10	13	14	28	24	21	13	6	3	1
MEAN		3	1	1	1	2	3	4	4	4	5	7	9	10	11	13	15	22	22	21	17	13	7	5
JAN	MNS	43	43	52	33	24	16	11	12	21	20	17	13	9	11	7	12	7	4	10	17	23	28	33
FEB	MNS	24	33	36	23	21	18	9	5	5	4	5	0	3	1	1	4	1	2	4	6	10	20	23
MAR	MNS	49	48	56	26	14	12	7	5	4	4	1	0	0	1	0	1	0	2	3	8	21	21	24
APR	MNS	38	46	26	26	23	9	7	4	6	5	3	4	3	0	1	1	1	0	4	4	11	14	25
MAY	MNS	36	36	27	33	21	23	17	13	10	8	4	3	1	1	1	2	3	1	1	1	3	9	14
JUN	MNS	20	21	22	19	10	9	6	6	2	1	1	0	1	0	1	0	0	0	0	0	0	2	7
JUL	MNS	21	27	20	15	8	9	4	5	9	10	5	6	1	2	4	4	4	3	3	3	6	4	14
AUG	MNS	22	28	27	21	16	10	6	7	5	8	3	4	2	1	1	1	1	0	0	1	0	16	21
SEP	MNS	31	41	36	21	17	5	4	5	10	7	6	4	3	1	1	1	1	1	0	10	15	22	35
OCT	MNS	51	39	34	29	18	12	7	7	4	1	2	3	4	6	5	8	5	1	2	12	12	24	31
NOV	MNS	25	21	16	12	4	2	1	1	1	1	1	0	0	0	1	3	3	4	10	17	22	18	
DEC	MNS	37	20	14	13	5	2	1	3	5	3	2	1	1	1	2	3	1	2	2	3	9	9	22
MEAN		33	34	29	23	15	11	7	6	7	6	4	3	2	2	2	3	2	2	2	4	8	14	19
JAN	MPS	MNS	-30	-41	-51	-33	-24	-14	-8	-9	-17	-18	-14	-9	-6	-5	2	-2	19	24	13	6	-3	-15
FEB	MPS	MNS	-21	-33	-35	-22	-17	-16	-5	2	3	2	4	8	8	13	14	11	22	17	19	8	-5	-19
MAR	MPS	MNS	-45	-47	-56	-26	-14	-11	-4	-1	0	1	5	13	11	9	11	10	12	14	13	10	-1	-18
APR	MPS	MNS	-35	-44	-24	-22	-18	-6	5	12	1	2	5	9	11	12	15	19	23	23	20	12	9	-6
MAY	MPS	MNS	-33	-33	-22	-32	-21	-21	-13	-12	-7	-4	3	7	12	17	20	19	21	24	21	16	17	-12
JUN	MPS	MNS	-18	-19	-20	-17	-8	7	-4	-3	5	10	19	20	16	14	13	12	15	20	22	17	19	11
JUL	MPS	MNS	-18	-26	-19	-14	-6	-5	-1	-1	-6	-5	3	1	8	7	7	14	21	19	17	23	20	6
AUG	MPS	MNS	-21	-27	-27	-19	-15	-8	-4	-3	-1	-5	6	6	7	7	15	15	20	23	31	31	22	14
SEP	MPS	MNS	-30	-41	-35	-18	-15	0	-1	-2	-6	-3	2	2	6	10	10	18	24	21	19	19	3	12
OCT	MPS	MNS	-50	-38	-34	-28	-16	-10	-5	-6	-1	2	5	5	6	3	6	5	7	16	10	-4	-7	
NOV	MPS	MNS	-23	-21	-16	-11	-2	2	2	3	2	3	4	8	11	12	11	11	21	19	12	5	-5	
DEC	MPS	MNS	-37	-20	-13	-12	-3	3	-2	-4	-1	1	3	4	8	11	11	27	21	18	10	-3	-6	
MEAN			-30	-33	-28	-21	-13	-7	-3	-2	-3	-4	4	6	8	9	11	12	19	20	18	13	5	

Horizontal Intensity. Unit Gamma.

1938.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
JAN	MPS	2	1	2	6	9	7	11	10	18	15	19	32	38	51	75	81	88	40	21	17	8	3	1
FEB	MPS	2	1	1	1	4	2	4	9	12	11	19	31	46	59	69	68	51	35	22	15	6	3	
MAR	MPS	0	0	1	1	1	2	2	4	4	20	30	28	28	48	51	45	43	27	13	8	3	0	
APR	MPS	20	28	9	17	16	5	16	22	20	20	31	58	70	89	85	87	82	47	25	12	5	0	
MAY	MPS	0	0	2	3	2	6	3	5	9	19	34	49	70	92	94	78	78	45	30	11	4	7	
JUN	MPS	1	1	0	2	3	1	2	5	9	15	18	31	43	37	51	63	52	46	35	19	9	2	
JUL	MPS	0	1	1	2	1	1	4	4	5	14	31	59	82	110	97	82	85	60	31	20	4	0	
AUG	MPS	0	1	2	5	6	2	5	4	8	12	15	23	43	0	75	73	62	49	27	10	4	0	
SEP	MPS	0	0	0	1	3	5	5	2	7	13	17	34	48	63	78	78	55	34	16	9	4	1	
OCT	MPS	1	1	1	3	3	5	6	5	9	16	26	49	68	62	64	56	37	26	15	2	0	6	
NOV	MPS	0	0	1	1	3	2	2	5	6	10	20	36	38	43	37	33	27	15	7	2	1	1	
DEC	MPS	1	2	3	1	2	3	4	2	6	9	13	19	31	47	43	41	43	31	15	18	12	6	
MEAN		2	3	2	4	4	3	5	6	9	14	22	36	50	58	69	66	59	39	22	11	5	2	
JAN	MNS	120	94	89	65	46	27	11	6	15	13	4	1	2	2	10	6	5	27	47	74	97	132	
FEB	MNS	79	82	89	83	52	48	39	6	3	2	0	0	0	0	0	0	4	20	25	42	54	82	
MAR	MNS	133	109	85	51	32	27	25	11	5	4	2	1	1	0	0	0	1	11	40	65	84	74	
APR	MNS	108	106	58	35	25	16	6	4	5	3	3	3	1	0	1	1	0	1	5	50	68	106	
MAY	MNS	134	107	91	75	48	37	26	12	7	4	2	2	1	0	1	1	0	0	13	23	32	53	
JUN	MNS	99	83	73	53	38	28	11	7	5	2	1	2	1	0	0	1	1	1	4	29	27	38	



JUL	MNS	89	88	59	43	41	40	14	13	9	5	5	1	1	3	3	2	2	2	13	15	33	55	72	85
AUG	MNS	78	74	62	46	31	9	10	7	6	6	2	3	0	0	0	0	0	1	9	20	31	53	97	115
SEP	MNS	102	97	82	68	36	10	7	4	4	3	6	5	2	2	6	2	7	4	13	46	94	105	113	124
OCT	MNS	104	88	63	49	42	29	10	3	1	0	0	2	2	3	1	3	6	18	31	67	107	155	161	127
NOV	MNS	40	43	40	30	13	5	5	5	1	1	1	0	1	0	0	4	2	12	13	28	62	92	68	73
DEC	MNS	74	56	28	25	17	19	12	7	2	2	1	1	1	1	1	5	9	24	28	39	53	49	85	92
MEAN		97	84	67	52	35	25	15	7	5	4	2	2	1	1	2	2	3	9	18	40	60.	84	100	105
JAN	MPS - MNS	-118	-92	-88	-60	-38	-20	0	3	3	2	15	30	36	49	65	75	84	14	-26	-57	-90	-129	-142	-147
FEB	MPS - MNS	-78	-81	-89	-83	-48	-46	-36	2	8	9	19	31	46	59	69	68	48	15	-4	-27	-48	-79	-92	-75
MAR	MPS - MNS	-133	-109	-84	-50	-30	-25	-23	-7	-1	16	28	27	27	48	51	44	42	27	2	-32	-62	-84	-73	-109
APR	MPS - MNS	-88	-78	-49	-18	-8	-11	10	18	15	18	27	55	70	89	84	86	82	46	20	-38	-63	-106	-102	-91
MAY	MPS - MNS	-154	-107	-89	-72	-46	-31	-23	-7	2	16	33	47	70	92	93	78	78	44	17	-12	-28	-45	-116	-137
JUN	MPS - MNS	-98	-83	-73	-51	-36	-26	-10	-2	4	13	17	30	42	37	51	62	52	45	30	-9	-19	-37	-65	-71
JUL	MPS - MNS	-89	-87	-57	-41	-40	-39	-10	-9	-4	9	26	57	81	107	94	79	83	58	18	5	-29	-55	-68	-83
AUG	MPS - MNS	-78	-73	-50	-42	-24	-7	-6	-3	2	6	13	20	41	62	75	73	62	48	18	-10	-27	-52	-97	-113
SEP	MPS - MNS	-102	-97	-82	-67	-33	-6	-2	-1	3	10	11	30	46	61	72	76	48	30	3	-37	-90	-104	-113	-124
OCT	MPS - MNS	-103	-87	-63	-46	-39	-24	-4	3	8	16	25	47	66	59	63	53	31	9	-15	-65	-106	-149	-161	-127
NOV	MPS - MNS	-40	-43	-40	-29	-11	-2	-3	-3	4	5	9	20	35	37	43	33	31	14	2	-20	-60	-91	-68	-73
DEC	MPS - MNS	-73	-34	-25	-24	-15	-16	-8	-5	4	7	12	18	30	46	42	36	35	8	-13	-21	-40	-43	-83	-90
MEAN		-95	-81	-66	-49	-31	-21	-10	-1	4	11	20	34	49	62	67	64	56	30	4	-27	-55	-80	-99	-103

Vertical Intensity. Unit Gamma.

1938.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JAN	MPS	29	45	38	30	21	26	21	22	3	1	9	12	19	15	41	10	7	5	8	7	14	29	43	37
FEB	MPS	25	18	16	10	5	8	3	4	5	9	12	11	13	19	23	19	11	8	5	8	20	17	30	23
MAR	MPS	53	24	13	8	7	3	4	2	3	2	4	6	12	12	14	15	8	8	5	7	24	32	26	51
APR	MPS	25	24	10	1	1	3	15	20	12	14	10	14	18	24	27	18	13	11	4	8	19	29	30	32
MAY	MPS	53	20	9	11	5	9	2	5	10	11	13	14	17	22	22	19	16	9	13	17	22	44	66	60
JUN	MPS	20	12	4	2	4	4	4	5	8	2	2	10	10	19	22	17	14	8	5	9	9	13	16	23
JUL	MPS	37	24	14	7	0	9	11	12	11	13	17	18	19	42	16	24	11	8	13	13	19	35	41	33
AUG	MPS	40	24	20	14	5	1	4	9	14	17	14	12	14	19	15	15	9	4	4	9	15	32	34	45
SEP	MPS	40	40	32	22	11	8	7	9	17	11	14	15	27	23	22	18	18	7	6	7	9	11	12	69
OCT	MPS	45	19	24	9	9	13	6	7	9	11	16	13	14	17	20	14	10	10	12	14	37	10	50	52
NOV	MPS	17	7	5	4	5	5	5	8	8	8	12	10	10	11	15	11	7	9	2	24	29	34	25	25
DEC	MPS	18	6	6	2	0	1	1	5	7	6	8	8	9	9	11	10	4	4	3	9	20	26	40	34
MEAN		34	22	16	10	6	8	7	9	9	9	11	12	15	19	21	16	10	8	7	11	20	26	34	40
JAN	MNS	7	21	20	30	20	17	15	6	21	17	14	17	19	24	66	48	73	56	35	34	32	19	12	18
FEB	MNS	18	19	18	17	18	18	19	16	5	1	0	6	14	12	20	31	29	24	21	11	19	12	15	7
MAR	MNS	10	18	17	24	17	16	14	6	4	5	4	5	6	14	14	16	26	26	17	9	13	13	12	7
APR	MNS	14	20	24	24	23	19	8	3	1	1	2	6	15	17	20	17	18	20	13	9	16	12	9	14
MAY	MNS	8	19	23	32	23	13	9	5	4	2	0	10	18	25	26	28	21	16	10	6	6	5	5	8
JUN	MNS	17	28	36	40	31	25	16	5	3	11	11	5	6	3	2	3	6	7	10	10	11	12	13	19
JUL	MNS	3	6	13	20	16	13	10	7	4	2	2	3	5	31	33	11	15	10	4	6	5	4	2	2
AUG	MNS	10	7	17	22	25	18	9	3	1	2	3	5	17	13	17	19	31	23	15	13	4	2	6	12
SEP	MNS	20	18	22	26	23	14	8	4	1	8	7	11	2	16	20	23	25	12	5	19	38	36	71	17
OCT	MNS	15	6	13	19	24	19	5	1	1	0	0	4	18	30	23	37	16	13	12	11	13	50	22	24
NOV	MNS	7	11	15	18	19	15	5	2	1	2	1	1	7	15	30	31	40	30	2	9	11	6	9	11
DEC	MNS	14	21	14	16	14	14	7	4	2	3	1	6	2	6	28	44	41	33	23	13	13	14	9	13
MEAN		12	16	19	24	21	18	10	6	4	5	4	6	10	17	24	25	29	23	15	13	15	16	15	13
JAN	MPS - MNS	22	24	18	0	1	9	6	15	18	16	5	5	0	-9	-25	-38	-66	-50	-27	-27	-18	10	32	19
FEB	MPS - MNS	7	-1	-2	-7	-13	-9	-15	-12	0	9	12	11	8	5	10	-1	-21	-21	-19	-13	8	-1	18	9
MAR	MPS - MNS	43	6	-4	-16	-10	-13	-10	-4	-1	-3	-1	1	6	-2	1	-1	-17	-18	-12	-2	11	19	14	44
APR	MPS - MNS	12	5	11	-23	-22	-16	7	17	12	13	9	7	4	7	7	1	-5	-9	-9	0	3	17	21	19
MAY	MPS - MNS	45	1	-14	-21	-18	-3	-7	0	6	9	13	4	-1	-4	-10	-5	-7	3	10	15	39	61	52	
JUN	MPS - MNS	3	-16	-31	-38	-26	-21	-13	0	4	9	9	5	5	16	20	15	8	1	-5	-1	-2	2	3	4
JUL	MPS - MNS	34	18	1	-13	-15	-4	2	5	7	11	15	14	11	17	13	-3	-2	3	9	13	30	37	31	
AUG	MPS - MNS	31	17	3	-8	-20	-16	-4	6	12	15	11	7	-3	6	-2	-5	-22	-19	-11	-4	11	29	28	33
SEP	MPS - MNS	20	22	11	-4	-12	-6	-2	5	15	4	7	5	25	7	2	-5	-13	-4	2	12	29	25	58	52
OCT	MPS - MNS	30	13	11	-10	-15	-6	1	6	8	11	15	9	-3	-13	-3	-22	-6	-3	-1	3	24	40	28	28
NOV	MPS - MNS	10	-4	-10	-14	-15	-10	0	6	7	7	11	9	3	-4	-15	-20	-32	-20	0	15	18	28	16	14
DEC	MPS - MNS	4	-15	-8	-14	-14	-14	-6	1	5	2	7	2	7	3	-17	-34	-37	-29	-20	-4	-6	13	31	21
MEAN		22	6	-1	-14	-15	-9	-3	4	8	9	9	7	5	1	-1	-9	-18	-15	-8	0	9	21	29	27



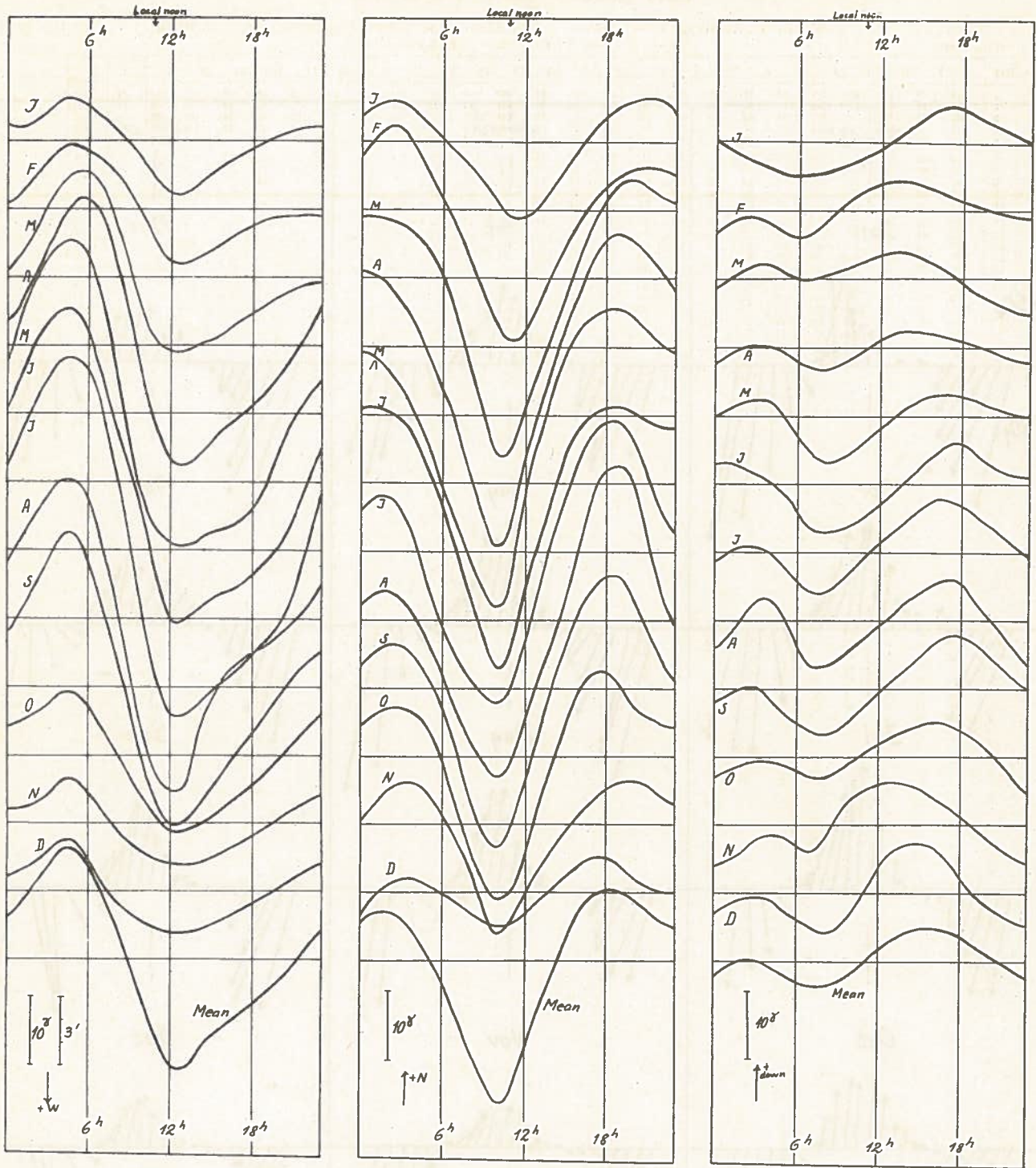


Fig. 1. The Quiet Diurnal Variation, Smoothed Values.

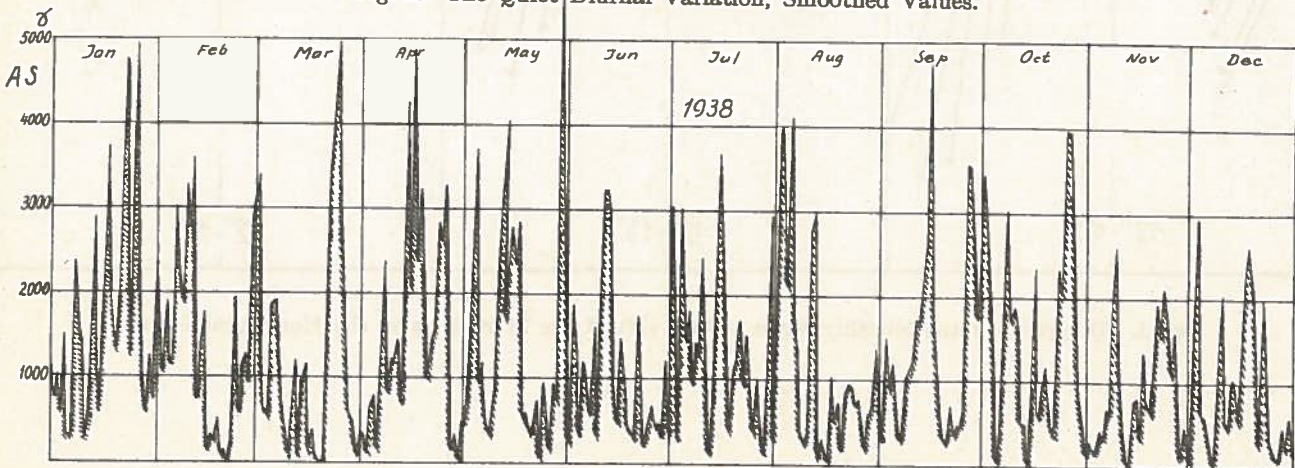


Fig. 2. The Diurnal Sum of the Absolute Storminess of H.



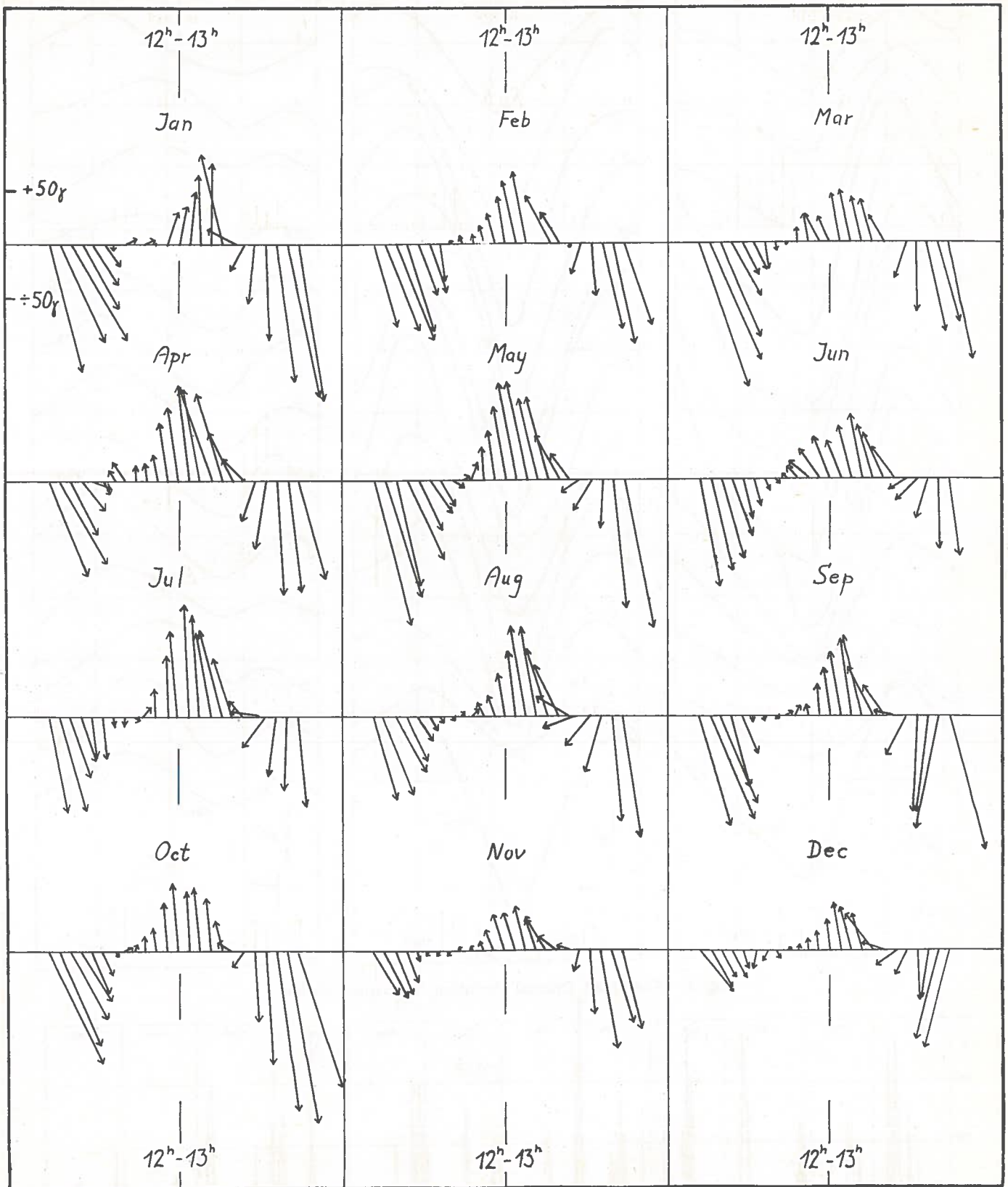


Fig. 3. Diagrams of the Monthly Mean Values ( $M$ ) of the Storminess in the Horizontal Plane.



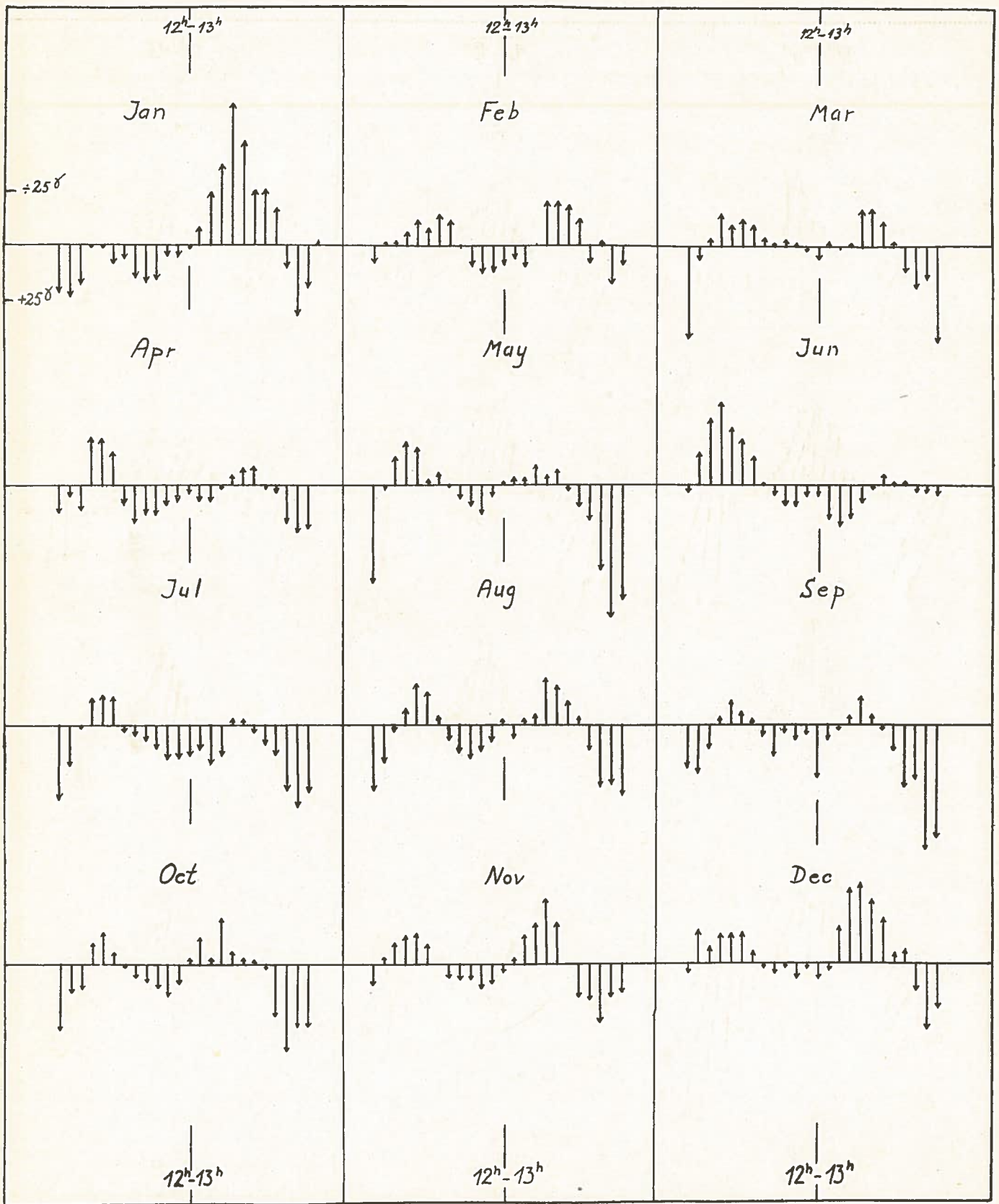


Fig. 4. Diagrams of the Monthly Mean Values (*M*) of the Storminess of the Vertical Intensity.







