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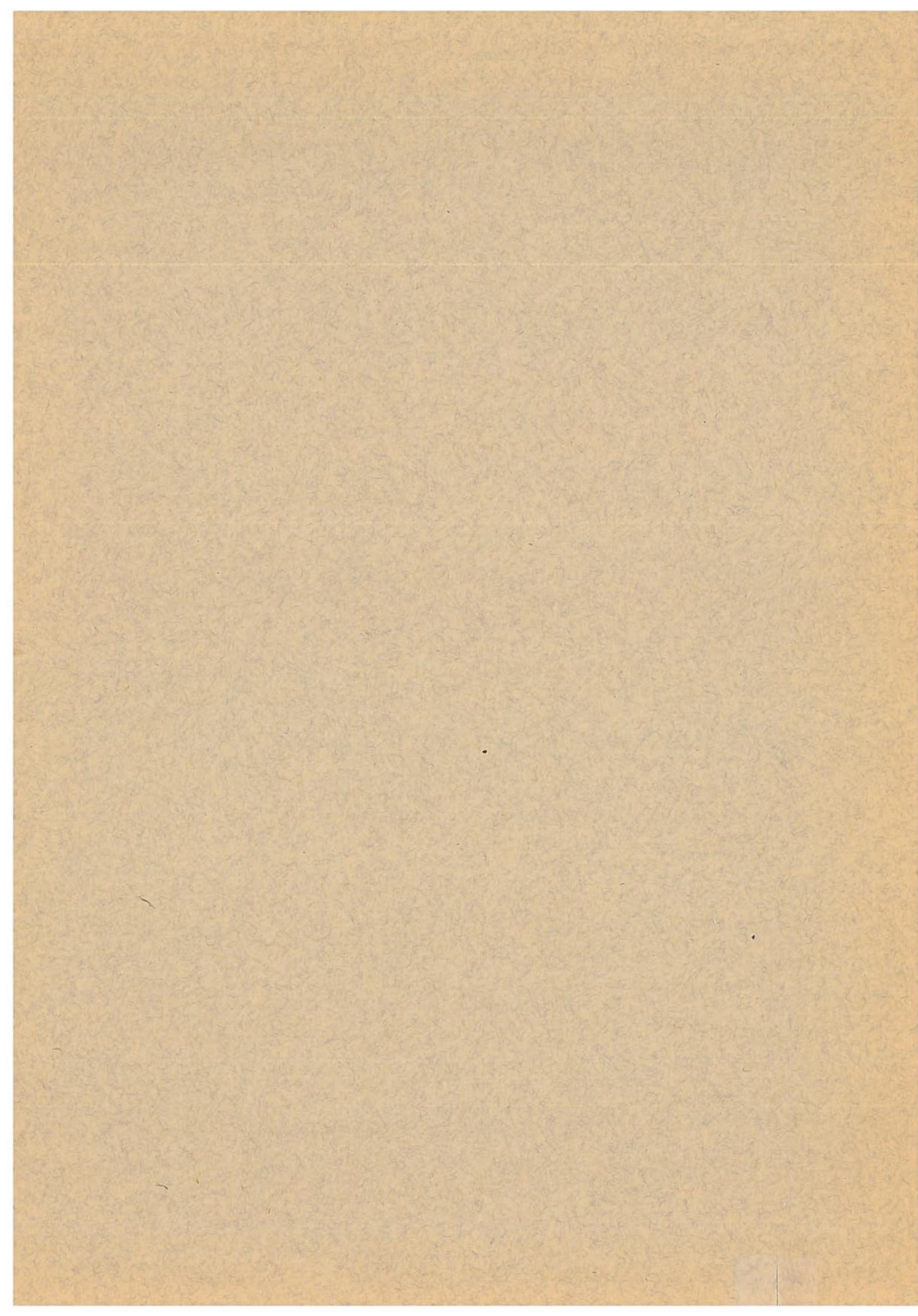
THE AURORAL OBSERVATORY AT TROMSÖ
($\varphi = 69^{\circ} 39'.8$ N, $\lambda = 18^{\circ} 56'.9$ E Gr.)
RESULTS OF MAGNETIC OBSERVATIONS
FOR THE YEAR 1931

By

LEIV HARANG and E. TÖNSBERG

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A.S JOHN GRIEGS BOKTRYKKERI, BERGEN



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General Remarks.

In No. 1 of the present publication series a general description of the arrangements for the magnetic measurements and the instrumental equipment at the Auroral Observatory at Tromsø have been given. Regarding details in the method of determining the scale-values and the absolute values and the tabulation, we refer to No. 1 and No. 2 of the same publication series. The present paper contains the results of the magnetic registrations for the year 1931.

Scale Values.

The scale-values of the *D*, *H* and *V* variometers were determined several times during the year. The following scale-values have been used:

<i>D</i> -variometer	1'45	per mm, — which corresponds to
	4.89 γ	" "
<i>H</i> -variometer	4.89 γ	" in the time-interval 1, I—27, I
	5.07 γ	" " — " — 27, I—31, XII
<i>V</i> -variometer	6.75 γ	" "

The Absolute Measurements.

In the following Table 1, the observed and adopted values of the base-lines of the *D*- and *H*-variometres are given.

Observed and Adopted Values for the Base-Line for D and H.

Date		D observed	D adopted	Date	H observed	H adopted
I	14	4° 8'9	4° 9'0	I	14	11 420
	23	9.0	9.0		23	18
II	4	8.9	9.0	II	4	58
	5	9.1	9.0		13	57
	13	9.3	9.0		23	54
	23	8.8	9.0	III	6	51
III	6	9.1	9.0		16	79
	20	8.9	9.0		27	79
	21	9.0	9.0	IV	8	77
	27	9.0	9.0		18	70
IV	8	8.5	8.4		27	67
	18	8.4	8.4	V	9	68
	27	8.3	8.3		14	74
V	9	7.9	8.3		23	70
	14	8.5	8.3	VI	5	70
VI	5	8.3	8.3		19	71
	19	7.7	8.3		27	69
	27	8.3	8.3	VII	3	68
VII	3	8.2	8.2		27	66
	9	8.2	8.2	VIII	12	61
	28	8.2	8.2		19	62
VIII	12	7.3	7.2		29	61
	19	7.2	7.2	IX	3	62
	29	7.0	7.2		19	61
IX	3	7.4	7.4		26	62
	19	7.4	7.4	X	8	62
	26	7.5	7.5		15	62
X	8	7.5	7.5		23	63
	15	7.2	7.5	XI	4	62
	23	7.5	7.5		12	62
XI	4	7.5	7.5		23	61
	12	7.6	7.5			62
	23	7.5	7.5			62
XII	8	8.0	8.0	XII	8	63
	18	8.0	8.0		18	63

Vertical Intensity.

On account of the great value of the inclination, it is difficult to measure the vertical intensity with the same degree of accuracy as the horizontal intensity. An inaccuracy of 1' in the inclination corresponds to 67 γ in the vertical intensity. The vertical intensity was measured with an inclinometer, an earth-inductor and a la Cour-intensimeter. The three instruments gave the following values of the base-line of the vertical variometer (a "Balance of Godhavn"):

Inclinatorium:

X 22	Needle I..... $V = 50200$	γ	Needle II $V = 50226$	γ
23	192			
26	158		194	
27	160		190	
	50178		50206	Mean: $V = 50192 \gamma$

Earth-inductor:

IV 23	$V = 50159$	γ	X 12	$V = 50192$	γ
28	195		13	170	
V 11	214		14	196	
15	224		XI 14	220	
VII 3	197			Mean: $V = 50195 \gamma$	

Mean: $V = 50198 \gamma$

la Cour-intensiometer:

X 12	$V = 50192$	γ
13	170	
14	196	
XI 14	220	

Mean for base line during the year: $V = 50195 \gamma$.

The mean value for the inclination during the year is, according to the quiet values of H and V given in the Resuming Tables, p. 26: $I = 77^\circ 1'$, 7.

Explanation to the Tables.

Regarding details, we refer to publication No. 2 in the present publication series. In the tables the following quantities are tabulated: The first tables contain the hourly mean value of the magnetic elements D , H and V , centered at half hours, *Gr. M.T.* The values of D are expressed in minutes, the values of H and V are expressed in gammas. In these tables M designates the ordinary mean values, R designates the range, *i.e.* the difference between the maximum and minimum values measured on the magnetograms. QM designates the "quiet mean", *i.e.* the value of the "normal line" defined by Birkeland, QR is the range of the "normal lines", *i.e.* the difference between the maximum and minimum of the hourly mean values of the "normal lines".

The five international quiet and disturbed days are marked by the letters Q and D .

The second table contains the storminess according to the simplified definition given in the preceding publication. All quantities are here expressed in gamma.

In D the Storminess is reckoned positive towards magnetic West, in H positive towards the magnetic North and in V positive downwards. M designates the hourly mean of the hourly values. PS designates the positive, NS the negative and AS the absolute Storminess, all in the "simplified" system.

For practical reasons we have, instead of ordinary mean values for each day, given the "diurnal sum" of PS , NS and AS . If we wish to have the mean values of these quantities we have to divide these sums by 24. MPS and MNS designate the hourly mean values during one month of the positive, and negative Storminess respectively.

The magnetic character of the day is given in the vertical column C , — only the strongest perturbed component, the horizontal intensity, is used for characterization.

The following ranges were found to be suitable for the definition of the magnetic character of the day.

Character 0....	Range of Deflection	0—400 γ
— 1....	—" —	400—800 γ
— 2....	—" —	800 γ or more.

The boundaries 400γ and 800γ have not been used quite strictly in all cases. By the fixation of the character number near the boundary-values, a personal judgment has also been taken into account.

In addition to the main tables, resuming tables containing the values of the quiet diurnal variation and of the Storminess, and the monthly means of the actual and quiet monthly mean values, are given.

Lastly, a table of the different values and groups of the quiet diurnal variation that have been used for the calculation of the Storminess is given.

Explanation to the Figures.

Figure 1, represents the diurnal variation of the quiet values according to the corresponding table.

Figure 2, represents the variation of the absolute Storminess during the year.

Figure 3 a, gives a graphical representation in vectordiagram of the mean diurnal variation of the Storminess in the horizontal plane, for the different months.

Figure 3 b, gives a graphic representation of the mean diurnal variation of the Storminess in vertical direction, for the different months.

Tables A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

TABLES

Tromsö.

JANUARY 1930

Declination. $D = 4^\circ W +$ Tabular Quantities expressed in Minutes.
HOURLY MEAN VALUES

Gr. M. T.

JANUARY 1931		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	QM	QR			
1	3	2	2	-3	4	5	5	5	6	7	7	9	8	9	7	7	6	8	6	6	8	14	9	-15	3	5.4	90	5.2	5		
2	4	0	4	-4	4	4	5	5	5	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5.0	21	5.5	3			
3	2	4	4	-4	4	4	4	5	5	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4.9	7	5.0	2			
4	3	3	4	-4	4	4	5	5	5	6	7	6	6	6	6	5	5	5	5	4	4	4	4	4	4.7	10	5.2	4			
5	4	3	3	-4	4	4	5	5	5	6	7	6	6	6	6	6	5	5	5	4	4	4	4	4	5.1	9	5.2	3			
6	4	4	2	0	3	5	5	6	6	6	7	6	7	7	7	6	6	5	5	4	4	4	4	4	5.1	11	5.6	4			
7	5	5	5	-4	5	5	5	6	6	6	6	6	6	6	6	6	6	6	5	5	4	4	4	4	4.4	5.9	5.6	3			
8	3	3	4	-4	4	4	5	5	5	6	6	6	6	6	6	6	6	6	5	5	4	4	4	4	4.5	5.2	5.3	3			
9	5	5	5	-4	5	5	5	6	6	6	6	6	6	6	6	6	6	6	5	5	4	4	4	4	4.5	107	4.5	3			
10	-18	-1	-1	-1	4	-3	5	5	11	8	7	7	8	12	15	15	13	10	1	4	5	5	2	-24	3	3.0	5.2	3			
11	3	3	6	4	4	4	4	6	7	7	6	6	6	4	4	5	6	7	6	4	10	8	1	-4	4	4.9	51	5.1	4		
12	-5	-1	3	3	4	4	4	4	5	5	6	6	7	6	7	7	6	6	6	5	5	5	5	5	5.4	26	5.1	3			
13	-2	0	3	4	4	4	4	4	5	5	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5.3	33	5.3	4			
14	-2	4	4	4	4	4	4	5	5	7	7	8	12	9	7	7	6	7	6	4	4	4	4	4	4.7	10	4.7	3			
15	-6	-5	-3	3	4	5	7	8	7	7	7	8	12	9	7	7	6	7	6	4	4	4	4	4	4.1	29	4.6	3			
16	-6	-19	-11	2	9	9	9	8	8	8	9	7	8	15	7	7	-4	-3	8	-9	7	-7	2	-24	-42	7	-0.5	175	4.6	3	
17	-24	0	-7	-2	9	9	9	12	8	6	7	3	4	3	6	8	5	-15	3	6	-6	0	0	0	-9	0.9	87	4.6	3		
18	-1	-12	-4	4	4	4	4	4	5	5	6	6	6	6	6	6	5	5	5	-1	-6	-4	15	-16	0	-6	0	2.0	62	4.6	3
19	-1	-5	0	-1	3	4	4	4	4	5	5	6	6	6	6	6	7	2	-4	4	2	0	-18	-4	2	0	2.4	60	4.7	3	
20	-9	-3	-2	-1	4	4	4	4	5	5	5	6	6	6	6	6	7	1	-3	12	13	3	0	1	-1	9	2.4	60	4.7	3	
21	4	2	0	4	4	4	4	5	6	6	8	9	8	7	6	5	5	4	5	3	0	-4	3	-4	-2	2	3.5	20	4.9	3	
22	4	1	-2	3	3	4	4	4	5	5	6	6	5	4	4	4	4	3	3	3	3	3	3	3	3	2.9	14	4.1	4		
23	8	-1	-1	3	3	4	4	4	5	5	6	6	5	4	4	4	4	4	4	4	4	4	4	4	3.8	27	4.1	3			
24	3	4	4	4	4	4	5	5	5	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4.5	6	4.6	3			
25	3	4	4	4	5	5	5	6	6	6	7	7	6	6	6	6	7	7	8	0	-15	-15	-4	-27	-27	0.8	113	5.1	4		
26	-24	-12	-4	0	0	6	7	9	15	8	8	7	5	5	5	5	4	5	5	4	4	2	3	3	3	2.7	52	4.4	3		
27	-3	-3	-3	-3	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4.4	50	4.4	3		
28	-1	-5	-4	-4	-4	-4	-4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1.3	21	50	4.6	3	
29	-2	-1	-1	-2	-2	-2	-2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1.5	48	4.6	4		
30	3	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4.7	43	4.2	3		
31	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.7	9	3.6	3		
M	-0.8	-0.2	0.8	2.2	3.0	4.6	5.1	6.2	6.5	6.2	6.2	6.6	6.6	6.5	5.6	4.5	5.5	4.1	4.1	2.7	1.9	1.3	-1.7	0.4	3.7	42.7	4.8	3.3			
QM	3.5	3.7	3.7	3.8	4.0	4.4	4.8	5.2	5.5	5.8	5.6	5.8	5.7	5.7	5.4	5.3	5.2	4.8	4.7	4.3	3.9	3.8	3.5								

FEBRUARY

MARCH

MARCH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	M	Q.M.
-1	-2	-4	-5	-1	-1	2	4	6	5	10	7	9	15	4	3	4	-2	-1	3	-3	-1	-3	-6	-4	2	2.8	20	3.5	6				
2	2	2	2	-1	-7	-1	-1	2	0	6	8	11	13	12	12	15	15	12	15	5	5	8	-8	-21	-1	-3	5.4	40	3.6	6			
3	2	2	2	-1	-7	-1	-1	2	0	6	8	11	13	12	12	15	15	12	15	5	5	8	-8	-21	-1	-3	3.3	39	3.3	6			
4	2	2	2	-1	-7	-1	-1	2	0	6	8	11	13	12	12	15	15	12	15	5	5	8	-8	-21	-1	-3	2.3	39	2.8	6			
5	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0.7	3.2	0.7	7				
6	2	2	2	-1	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	2.5	20	3.3	10				
7	3	3	3	-2	-3	-2	-1	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	2.8	20	3.2	8				
8	-8	-3	-2	-3	-2	-1	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	2.5	59	3.3	6				
9	-30	-3	-3	-2	-5	-4	-5	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1.5	65	3.3	6				
10	2	-	0	-1	-5	-4	-5	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	3.4	32	3.0	7				
11	-5	-1	4	0	-1	-1	-1	2	4	4	6	7	5	4	3	3	4	3	1	3	3	3	3	3	3	0	2.5	19	3.0	7			
12	-3	-7	-4	-4	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-0.5	158	3.2	6				
13	-9	-5	-1	-4	-3	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-0.5	195	3.3	6				
14	-42	-36	-9	-9	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-1.3	95	3.3	6				
15	-3	-3	-6	0	1	3	1	-2	3	4	5	7	6	6	2	5	7	6	4	3	3	3	3	3	3	4	2.3	23	3.3	6			
16	4	0	-4	0	1	0	0	0	0	0	2	4	6	7	7	7	6	4	3	3	3	3	3	3	3	2.8	20	3.0	7				
17	2	-	1	-2	1	0	0	0	0	0	2	4	6	8	7	8	7	6	5	3	3	3	3	3	3	2.6	19	2.9	6				
18	3	4	3	3	3	3	1	-1	-1	-1	0	4	4	6	8	9	8	7	6	5	3	3	3	3	3	3.1	10	2.9	6				
19	3	3	3	3	3	3	1	-1	-1	-1	0	4	4	6	8	9	7	6	5	3	3	3	3	3	3	2.6	16	3.2	6				
20	3	3	3	2	0	0	0	0	0	0	2	4	7	8	9	7	6	4	3	3	3	3	3	3	3	3.5	60	3.4	9				
21	-33	-19	-7	-10	-12	-4	0	2	1	4	8	12	18	18	33	12	8	7	9	9	-3	-18	-18	-27	-0.4	120	3.0	6					
22	-30	-21	-12	-14	-16	-1	-1	3	1	3	3	6	7	8	7	4	3	3	5	6	4	0	-12	-19	-27	-1.6	94	2.9	6				
23	-15	-15	-2	-19	-13	-4	-2	-1	-1	-1	3	3	3	4	7	9	11	12	9	6	5	5	3	-9	-2.2	85	2.9	6					
24	-6	-10	-9	-12	-9	-7	-6	-2	3	3	7	8	9	9	12	8	4	3	3	5	5	5	1	-10	-5	1	1.3	36	3.0	6			
25	-4	-6	-3	-4	-7	-6	-2	3	2	3	10	9	9	9	12	8	4	3	3	5	5	5	1	-10	-5	0.8	74	3.0	6				
26	-2	-60	-18	-2	-5	-7	-1	3	5	6	7	12	13	13	8	6	4	4	3	5	4	4	4	4	4	-0.4	135	3.0	6				
27	-4	-3	-1	-3	-2	-1	-1	0	5	3	3	5	6	8	8	6	4	4	4	5	5	4	4	4	4	4	2.6	40	3.0	6			
28	-1	-2	-7	-2	-1	-1	-1	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-1.7	30	3.4	7				
29	-1	-6	-7	0	-2	-1	-1	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1.8	48	3.0	7				
30	2	2	-1	-1	-1	-1	-1	0	2	-1	3	6	9	14	15	14	9	7	4	4	4	4	4	4	4	3.0	13	3.2	7				
31	-	-	-	-	-	-	-	-	2	-1	3	6	9	14	15	14	9	7	4	4	4	4	4	4	4	4.8	19	3.3	7				
M	-6.9	-5.9	-2.3	-2.6	-2.0	-0.5	0.6	1.4	2.5	4.6	6.6	8.4	8.8	8.2	7.2	5.5	4.6	4.5	4.2	3.8	2.0	-2.1	-3.6	-5.0	1.7	54.2	3.1	7.5					
Q.M.	2.3	1.8	1.4	1.0	0.6	0.7	0.6	1.0	2.0	4.0	5.7	6.8	7.3	6.3	5.1	4.0	3.5	3.4	3.2	3.0	3.0	2.8	2.8	2.9									

RESULTS OF MAGNETIC OBSERVATIONS. TROMSÖ 1931

Tromsø.

JANUARY 1931

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

Gr. M. T.

DAY	HOURLY MEAN VALUES.																							M	DIURNAL SUM			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		P _S	N _S	A _S	
1	0	0	0	0	0	0	0	0	2	0	8	7	11	0	0	6	0	10	32	15	-64	-3	1	92	67	159		
2	-1	-13	-2	-17	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	1	41	41	41	
3	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	
4	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	
5	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	6	
6	-1	1	-6	-14	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	1	26	27	
7	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	
8	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	
9	5	-11	-46	-65	-58	-9	0	2	18	10	8	14	12	7	19	30	17	23	15	9	5	-12	34	55	88	-93	-2	
10	-73	-15	-9	-3	-25	3	0	19	8	4	7	11	-2	0	-10	-17	-7	0	3	-46	-5	-8	-3	0	233	292	525	
11	-3	-3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	-31	-16	-6	-5	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	-21	-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	
14	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-22	-11	-2	72	
15	-31	-30	-22	-2	-1	3	7	12	5	5	10	23	13	6	5	0	4	8	6	3	-23	-5	-17	-19	-2	0	0	
16	-31	-77	-50	-4	17	18	12	12	13	6	10	31	6	8	-30	-28	11	-47	8	-30	8	-93	-152	14	-16	42		
17	-81	-12	-37	-2	17	26	5	4	8	-7	-3	-9	1	9	-68	-7	-3	-37	-17	-15	-53	-42	-6	-12	164	559	723	
18	-16	-20	-25	-1	0	0	0	0	0	0	0	0	0	0	-8	-22	-37	-29	33	-35	-5	-12	-31	73	366	439		
19	-9	-30	-12	-9	-3	-2	-2	-1	3	1	-8	-1	1	4	-8	-10	-5	-5	-10	-17	-25	-5	-17	28	234	262		
20	-41	-22	-20	-7	0	0	0	0	0	0	0	0	0	0	5	-15	-27	-57	28	-7	-15	-8	-15	21	-8	54	234	
21	1	-4	-12	0	0	0	0	8	10	7	0	0	0	0	-5	-5	0	-7	-17	-32	-5	-25	-20	-3	-4	26	135	161
22	2	-10	-4	-2	-1	-9	-3	6	3	5	-5	-2	3	0	-8	-5	0	0	0	0	0	0	0	-11	-2	14	73	87
23	17	-9	-10	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	-1	24	41	65
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	4	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8	11	-17	-67	-60	-28	-102	-101	-15	24	375	399
26	-91	-52	-24	-12	-13	6	10	16	35	11	11	6	0	0	0	0	0	0	-5	-22	0	0	0	0	-5	95	219	314
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	4	21	11	-1	-25	-25	-53	-72	-65	-7	57	231	288
28	-11	-62	-27	-30	-25	-14	-5	2	-4	-7	2	6	-7	-1	2	-3	-1	1	-19	-18	-53	-1	-4	-14	-10	13	256	269
29	-18	-7	0	0	0	0	0	0	10	8	7	4	31	31	2	24	13	-22	-2	-7	-7	-25	0	3	2	133	88	221
30	0	0	0	0	0	0	0	0	0	0	4	-3	0	0	-5	-6	3	10	10	-35	-7	-10	-7	-1	-2	4	3	7
31	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	
M	-14	-13	-10	-6	-3	1	1	3	3	1	2	3	3	3	0	-3	1	-4	-2	-7	-8	-9	-18	-10	-3.5	46	133	179
MPS	1	0	0	0	1	2	1	3	4	2	3	3	3	3	2	2	3	2	2	2	3	3	1	0	2			
MNS	15	13	10	6	4	1	0	0	0	1	1	0	0	0	2	5	2	6	5	10	11	10	18	12				

FEBRUARY

-11	-20	-19	-9	2	11	11	0	6	0	0	0	0	0	0	0	0	0	0	0	-9	-25	-8	-22	-51	-6	30	174	204	
-39	-150	-39	-19	-5	9	0	4	-3	0	0	0	0	0	0	0	0	0	0	0	-25	-8	-32	-8	-10	59	310	369		
-1	-10	-29	-39	-2	17	8	-3	18	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	82	137		
4	0	0	-6	-5	-1	6	10	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	-4	-22	-49	-34	-20	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	5	27	-57	-16	-1	77	92	169		
6	-5	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		
7	0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8	-81	-40	-39	-21	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	-11	-42	-49	-2	68	107	175		
9	-13	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-7	-3	-12	-21	-8	22	216	238		
10	-19	-22	-19	-17	-10	-8	0	0	0	0	0	0	6	12	7	0	0	0	0	0	0	0	0	0	0	0	0		
11	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		
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		
13	-23	-22	-21	-26	-10	-1	6	19	26	15	16	24	28	11	22	22	22	22	51	51	51	51	-5	0	-1	-7	-6		
14	-31	-70	-79	-64	-25	29	26	2	6	5	14	-26	11	-9	-30	12	12	12	-53	-21	-53	-17	-3	-75	-113	-117	-71		
15	-21	-27	-19	-7	10	1	-2	7	4	5	12	7	1	-19	-10	-38	-29	1	-53	58	25	-53	-112	-26	-12	25	95		
16	-74	2	-8	-3	6	5	-1	6	5	0	0	-5	0	0	0	0	0	0	0	2	5	5	-16	-9	-1	12	30	42	
17	0	0	0	0	0	0	0	0	4	5	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	9	0	-4	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	-24	-18	-5	0	0	0	0	0	0		
20	3	0	-28	-8	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	-6	-15	-15	-4	-6	-2	3	14		
21	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		
22	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		
23	-9	-6	-10	-8	-10	-8	-3	0	6	-9	12	16	28	21	10	-1	-8	-7	-1	-5	-3	-2	-2	-10	-3	-5	-9		
24	-27	-68	-58	-26	-27	-45	-49	-2	-14	-6	17	19	30	61	72	12	12	152	143	140	27	28	14	-50	-44	21	864		
25	-19	-22	-18	-13	-17	-15	-11	-12	-11	-6	-5	14	18	29	27	42	42	63	45	27	18	-91	-10	-129	0	347	357		
26	-189	-138	-53	-38	-4	2	11	10	-4	-4	0	8	7	13	14	2	2	-3	-10	29	-20	-30	-16	111	502	613			
27	-29	-28	-8	-15	-11	-10	0	0	0	8	0	7	0	19	10	0	0	-28	-14	2	-10	-25	-11	-10	-7	60			
28	-11	-8	-16	-1	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
M	-20	-22	-18	-13	-5	-1	4	1	2	1	3	4	6	6	6	5	7	6	8	0	1	-4	-10	-23	-24	-3.7	89	178	287
MPS	0	1	0	0	1	3	4	2	3	2	3	5	6	7	6	8	10	10	10	7	4	3	3	0	0	0	0	0	
MNS	21	23	18	13	6	3	1	1	1	1	0	1	0	2	1	4	3	7	4	3	1	13	23	24					

MARCH

1	-11	-14	-20	-21	0	-2	0	0	0	0	0	0	0	0	-5	10	5	7	0	0	0	0	-8	-8	0	-3	22	89	111
2	0	0	0	0	-4	0	-5	-5	-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	0	2	-8	-25	-24	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4	-11	-9	-12	-6	-10	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	-38	-30	-14	-3		
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	-78	-20	-6	0		
6	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			
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-26	-18	0	-2	0		
8	-36	-16	-15	-14	-10	-8	-10	-7	-7	-2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
9	-108	-16	-17	-22	-15	-20	-8	-7	-7	-2	-2	4	9	12	20	22	13	13	12	10	10	12	-15	-39	-3	-1			
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	26	20	13	7	3	0	-30	-34			
11	-26	-8	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12	-18	-28	-20	-8	-12	-12	10	0	-5	5	6	5	5	7	10	17	6	12	28	39	20	-180	-130	-69	-12	11	50	61	
13	-38	-24	-10	-19	-12	-12	7	7	-12	5	5	5	5	7	11	17	6	12	-42	-66	-70	-40	-90	-179	-22	153	453	606	
14	-148	-126	-35	-19	-19	-2	-7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15	-18	-16	-25	-4	-1	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	4	-6	-15	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17	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		
18	3	6	6	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		
20	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		
21	-118	-71	-29	-38	-42	-15	-1	8	0	2	8	19	33	37	92	27	17	14	20	22	-20	-70	-70	-100	-12	299	574	873	
22	-108	-76	-44	-18	-22	-3	-6	10	0	0	0	0	0	0	0	0	0	0	8	10	5	-10	-50	-75	-33	412	445	609	
23	-58	-56	-12	-68	-47	-12	-7	-3	0	0	0	0	0	0	0	0	0	0	2	10	40	10	0	0	-40	-10	62	309	371
24	-28	-41	-34	-43	-32	-25	-19	0	7	9	9	8	9	11	17	12	7	1	6	10	8	-1	-5	-5	-8	-6	105	241	346
25	-23	-26	-14	-18	-24	-20	8	10	5	20	12	9	13	5	-6	-3	-1	6	-8	-10	20	-60	-45	-28	-7	268	394	0	
26	-78	-206	-64	-11	-19	-22	-4	10	15	7	8	17	18	22	10	7	4	-1	8	5	0	-5	-12	-18	-13	131	440	571	
27	-21	-16	-9	-13	-10	0	19	7	12	9	0	0	0	0	0	0	0	0	10	8	-10	10	-20	-25	-1	96	124	220	
28	-48	-24	-12	-25	6	0	0	0	0	0	0	0	0	0	0	0	0	0	12	2	-2	-27	-7	-28	-6	136	173	209	
29	-68	-31	-4	-11	-7	-13	11	10	12	-5	0	0	0	0	0	0	0	0	18	-10	-15	-10	-6	-6	51	182	233	0	
30	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		
31	0	0	0	0	0	0	6	0	0	7	12	25	23	25	12	12	7	0	0	0	0	0	0	0	0	0	129	0	129
M	-31	-26	-12	-12	-9	-4	0	1	2	2	3	5	6	6	7	5	4	4	3	3	-3	-17	-22	-26	-3.6	92	236	328	
MPS	0	0	0	0	0	1	2	2	2	3	3	5	5	7	8	5	4	5	6	7	3	4	6	17	22	26			
MNS	31	26	13	12	9	5	2	1	0	0	0	0	0	0	1	0	1	1	3	4	6	17	22	26					

Tromsö.

Declination. $D = 4^\circ W + \text{Tabular Quantities expressed in Minutes.}$
HOURLY MEAN VALUES

Gr. M. T.

APRIL 1931		ROULETTE MEAN FREQUENCIES																												
DAY	I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM	QR			
		2	2	1	1	0	-1	-2	-2	0	3	5	7	9	9	8	8	12	18	0	-3	-1	-3	-10	3.0	91	3.2	11		
2	-24	-12	-5	0	0	-1	-4	-4	-1	2	4	6	7	8	7	6	5	4	3	-4	-1	-2	-1	82	82	2.9	9			
3	0	-1	0	0	-1	-2	-2	-3	-1	0	2	4	6	7	5	4	5	3	2	0	-4	-2	-1	4.5	62	2.9	10			
4	-1	-18	-13	-2	-1	0	0	0	2	4	7	8	8	7	5	4	3	3	3	-1	-24	-2	-1	-0.4	64	2.2	11			
5	0	-18	-13	-2	-1	0	0	0	2	4	7	8	8	7	5	4	3	3	3	-1	-3	-2	-1	1.5	39	3.0	8			
6	2	1	1	0	-1	-1	-1	-1	-1	0	3	4	6	8	9	7	4	3	3	4	3	3	2	2.8	13	2.9	10			
7	2	1	0	-1	-2	-3	-2	-1	-1	0	3	4	6	7	4	3	3	4	3	-2	-1	-2	-1	0.5	14	2.7	11			
8	-2	0	-1	-1	-1	-1	-2	-1	-1	-1	3	4	6	8	9	7	4	3	3	4	-4	-3	-2	-10	36	3.1	12			
9	-16	-12	-10	-5	-2	-2	-1	-1	-1	-1	3	4	6	8	9	7	5	4	3	3	4	-6	-5	-4	-1.4	34	3.4	12		
10	-12	-12	-12	-22	-24	-10	-6	-5	-3	-1	3	7	10	13	12	12	13	9	7	4	2	6	-27	-8	-1.2	85	2.6	11		
11	3	0	-1	-2	-3	-3	-2	-1	-1	2	7	9	10	7	15	7	4	3	5	5	6	2	3	3	3	38	2.4	11		
12	3	2	1	-2	-2	-3	-2	-1	-1	0	1	3	5	6	4	3	3	1	1	2	3	3	3	1	1.6	10	1.8	8		
13	2	1	-1	-2	-3	-3	-2	-1	-1	0	1	3	4	5	5	4	3	3	1	4	3	3	3	3	2	20	2.3	12		
14	2	1	0	-1	-2	-2	-1	-2	-3	-1	2	4	7	8	9	7	5	6	6	7	5	6	7	1	2.3	38	3.1	12		
15	0	-2	-1	-3	-3	-3	0	0	0	-1	2	5	7	8	9	8	5	6	7	0	-5	-1	-3	-2.5	17	2.5	10			
16	1	1	-4	-2	-2	-3	-3	-3	-1	1	3	4	6	7	6	5	4	5	5	6	6	4	4	4	2	2.5	26	3.7	11	
17	1	1	3	0	-1	-1	-1	0	0	1	3	5	7	10	10	7	6	5	5	6	5	5	4	2	3.3	45	2.4	12		
18	1	-1	-4	-7	-1	-11	-13	-7	-1	-2	3	5	8	12	12	15	12	10	8	5	2	-5	0	4	3	2.0	133	2.5	12	
19	3	2	-2	-2	-3	-3	-4	-3	-1	-1	3	5	8	10	13	15	15	18	13	19	12	-33	-15	-24	-42	0.2	130	2.4	11	
20	-75	-39	-10	-27	-12	-9	-6	-1	-1	-1	3	5	8	12	9	8	5	5	5	5	5	5	4	1	-4.5	17	2.5	10		
21	0	0	-1	-2	-3	-3	-3	-1	-1	-1	2	4	7	8	7	6	5	5	5	6	3	1	0	0	0	2.2	27	2.2	11	
22	-1	-2	-5	-6	-3	-5	-2	-1	0	2	4	6	7	7	6	4	9	9	9	7	6	3	-3	-1	-6	1.8	27	2.3	10	
23	-7	-3	-4	-3	-3	-3	-3	-2	-1	0	2	4	6	7	6	4	9	9	7	7	5	3	2	1	0.9	38	2.2	10		
24	-5	-6	-12	-8	-7	-4	-2	-2	-1	1	4	6	7	7	6	5	6	6	6	5	4	3	2	1	-1	20	2.3	12		
25	-2	-3	-4	-4	-3	-3	-3	-1	-1	1	4	7	11	12	10	10	9	12	13	17	0	-1	0	-1	3.8	39	2.0	12		
26	0	-1	-2	-3	-4	-3	-2	3	0	2	4	6	7	5	4	4	4	5	5	5	5	-1	-5	-8	2.4	26	2.3	11		
27	-1	-3	-3	-3	-3	-3	-2	-1	1	4	6	8	8	8	7	4	4	4	3	2	1	-1	2	1.5	11	2.4	11			
28	-1	-1	-1	-2	-3	-3	-2	-1	1	4	6	8	6	6	5	3	3	3	3	3	3	3	2	2	2	3.3	14	3.2	12	
29	2	2	-3	-2	-3	-2	-1	1	4	6	9	9	9	8	7	5	4	5	5	5	5	5	5	2	2	2	3.3	41.6	2.5	10.6
M	-4.0	-3.4	-3.7	-3.7	-3.3	-3.3	-2.2	-0.6	1.1	3.5	5.8	7.8	8.4	8.1	6.9	5.8	5.7	5.8	6.4	5.1	1.5	0.3	-2.2	-3.2	1.8	41.6	2.5	10.6		
QM	1.2	0.3	-0.7	-1.5	-2.1	-2.3	-2.0	-0.8	L0	3.4	5.4	7.1	7.8	7.2	5.9	4.4	3.9	3.6	3.7	3.6	3.1	2.9	2.5	1.9						

MAY

JUNE

I	-1	-2	-4	-4	-5	-4	-3	-1	3	6	11	12	11	11	8	10	15	21	21	18	24	15	0	-11	63	65	25	14			
2	-9	-12	-8	-21	-15	-3	-3	-6	-4	-9	7	10	13	15	19	14	9	23	9	7	1	4	-5	-18	15	20	14	14			
3	-9	-12	-9	-7	-4	-3	-1	-1	-2	-5	7	9	7	8	7	5	5	5	5	5	4	4	-3	1	19	26	26	14	14		
4	-1	-5	-4	-5	-4	-4	-3	-1	-1	-2	5	7	9	7	6	5	4	5	5	4	5	5	1	-1	1.9	17	20	20	18		
5	-3	-4	-6	-7	-8	-9	-7	-5	-2	-2	5	6	7	9	9	7	6	6	8	9	6	2	-2	1.4	26	1.2	18	18			
6	-2	-1	-5	-7	-7	-8	-8	-8	0	9	12	12	10	10	7	9	12	12	15	8	7	3	-3	-4	3.0	48	24	24	14		
7	-4	-1	-3	-4	-5	-6	-6	-4	-3	-1	3	8	10	11	12	12	12	17	21	45	58	10	-6	-6	35	25	25	16	15		
8	-4	-6	-7	-5	-7	-4	-4	-3	-0	-4	8	10	11	12	12	12	17	21	45	58	10	-6	-6	-30	4.3	122	25	25			
9	-51	-48	-21	-54	-36	-24	-12	-1	-4	-3	1	4	9	12	12	11	9	14	15	14	9	9	3	-3	-16	6.9	180	24	24		
10	-7	-8	-9	-9	-12	-12	-5	-3	6	4	4	4	7	9	12	14	19	13	16	17	9	11	4	4	4.3	45	25	14	14		
11	-1	-5	-24	-18	-10	-8	-7	-3	-3	4	6	7	9	10	10	15	12	9	9	9	8	6	4	-2	-9	1.7	87	24	24	14	
12	-70	-63	-27	-27	-6	-6	-4	-4	-5	-5	6	7	9	14	10	15	19	17	7	7	7	7	7	-4	-11	-3.5	150	24	24	14	
13	-12	-1	-4	-5	-4	-1	-1	-2	-1	-3	7	11	14	10	11	11	11	9	9	9	9	7	5	0	-1	-6	2.8	35	24	24	
14	-7	-8	-7	-8	-4	-2	-0	-0	-1	-4	5	5	7	7	7	7	9	9	9	9	9	7	5	-5	-5	3.2	30	28	28	14	
15	-12	-14	-12	-9	-9	-6	-4	0	0	2	5	7	7	7	7	7	7	7	7	7	7	7	4	-1	-2	0.9	25	24	24	14	
16	-4	-4	-5	-5	-4	-3	-2	-1	-1	4	6	8	10	11	8	7	7	7	7	8	7	6	4	-2	-5	2.5	17	2.7	2.7	15	
17	-7	-4	-3	-3	-4	-4	-3	-3	-2	0	4	10	11	9	9	9	8	6	6	6	6	6	4	0	0	0	2.3	19	2.5	2.5	15
18	2	-2	-4	-4	-4	-5	-3	-1	4	6	7	9	8	7	7	6	6	6	6	8	5	5	1	2	1	2	2.0	30	25	25	16
19	-3	-4	-4	-4	-5	-6	-7	-6	-1	2	6	9	11	10	9	9	7	6	5	5	5	4	3	3	2	2	2.0	30	25	25	16
20	-3	-4	-4	-4	-5	-6	-7	-6	-1	2	6	9	11	10	9	9	7	6	5	5	5	4	3	3	2	2	2.0	30	25	25	16
21	0	-1	-2	-3	-5	-5	-4	-3	-1	4	6	7	8	9	9	9	12	11	11	13	10	5	4	-1	-2	3.6	27	24	24	14	
22	-1	-4	-3	-6	-5	-2	-2	2	2	2	5	6	7	9	9	8	10	12	10	10	12	10	5	4	-2	-2	2.9	32	20	20	12
23	-3	-1	-4	-7	-6	-4	-3	-1	2	4	5	7	8	8	7	6	6	7	7	8	6	5	5	3	-4	-4	2.3	25	26	26	14
24	-5	-7	-7	-3	-2	-4	-3	-3	0	2	3	4	7	7	7	4	4	5	6	6	6	4	-9	-3	-2	0.5	36	1.8	1.8	14	
25	-2	-4	-5	-7	-7	-4	-3	-1	1	3	4	7	8	9	8	6	6	6	6	6	6	4	-1	2.3	19	2.4	2.4	14			
26	-1	-2	-4	-6	-5	-4	-3	-3	-4	-1	3	7	9	8	7	21	23	18	19	10	12	15	-12	-39	2.8	110	2.2	2.2	15		
27	-19	-16	-27	-16	-4	-3	0	3	5	3	12	11	13	15	12	18	9	10	14	9	3	-9	-6	-9	0.5	78	2.2	2.2	13		
28	-13	-60	-18	-16	-10	-3	-4	-3	-1	3	7	6	10	8	4	4	5	5	5	5	5	5	-12	-21	-28	-3.9	117	2.2	2.2	13	
29	-14	-9	-7	-9	-5	-2	-2	-2	0	4	4	4	-1	4	7	7	7	7	8	7	5	5	3	1	1	0.7	27	2.1	2.1	15	
30	-2	-4	-5	-7	-7	-6	-5	-3	0	2	4	6	8	7	7	6	5	4	5	7	5	3	1	1	1.3	20	1.2	1.2	15		
M	-9.1	-10.8	-8.6	-9.2	-7.2	-4.9	-3.8	-1.4	0.2	2.9	6.3	7.6	9.2	9.7	9.3	9.2	9.0	10.0	9.9	9.1	6.2	2.5	-1.7	-6.8	1.6	56.0	2.3	14.2			
QM	-1.4	-2.6	-3.8	-4.5	-4.9	-4.4	-3.4	-1.6	0.5	3.4	5.7	7.3	8.3	8.0	7.2	6.5	5.8	5.4	5.4	5.6	5.2	3.7	2.2	0.2							

RESULTS OF MAGNETIC OBSERVATIONS TROMSÖ 1931

Tromsö.

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

Gr. M. T.

DAY	HOURLY MEAN VALUES																							M	DIURNAL SUM				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		PS	NS	AS		
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	13	28	50	-11	-21	-16	-20	-42	0	103	110	213		
2	-87	-44	-18	6	0	0	-12	-12	0	0	0	0	0	0	0	0	0	0	5	-6	0	0	0	11	155	166			
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	29	33	65	51	24	-11	-25	-17	6	217	77	294		
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	-14	-30	1	-16	-16	-90	-59	-9	8	225	233			
5	-7	-64	-45	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	124	124			
6	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		
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	8	6	4	-6	-18	-9	0	30	33	63		
8	-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	11	10	9	4	-23	-20	-44	-3	34	105	139		
9	-62	-44	-35	-15	-2	0	0	0	0	0	0	0	0	0	0	0	18	25	19	11	4	-30	-49	-7	77	237	314		
10	-47	-44	-75	-77	-29	-12	-4	8	-8	-2	8	11	17	15	20	30	21	16	2	-3	9	-19	-100	-37	-12	157	451	614	
11	5	0	0	0	0	0	0	0	0	13	13	11	-3	27	3	0	6	9	10	-3	-11	0	0	0	3	97	17	114	
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		
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		
14	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		
15	-7	-11	-5	-7	-4	-2	6	0	0	0	0	0	0	0	5	0	8	16	15	19	-11	-29	-15	-17	41	37	78		
16	0	3	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17	0	7	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		
18	-1	-12	-17	5	-28	-35	-17	-2	20	6	10	17	14	20	22	10	5	3	1	-4	-29	-10	-10	-15	-2	-1	7	37	44
19	0	0	-5	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20	-252	-129	-30	-82	-30	-20	-12	-2	-2	-20	-8	5	12	9	10	0	0	0	51	28	-121	-60	-87	-145	-7	116	154	270	
21	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22	0	-7	-13	-12	0	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
23	-24	-9	-8	0	0	0	0	0	0	0	0	0	0	0	0	15	17	8	8	-3	-20	-7	-25	-2	48	84	142		
24	-20	-19	-35	-20	-12	-3	0	0	0	0	0	0	0	0	12	7	4	0	0	0	0	0	0	0	0	0	0	0	
25	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		
26	0	0	0	0	-5	0	16	13	17	18	12	0	0	0	0	0	0	0	0	5	-15	-25	-33	0	81	78	159		
27	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		
28	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		
29	5	9	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	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		
M	-18	-13	-10	-7	-4	-3	-1	1	0	1	1	2	2	3	4	5	6	7	9	5	-5	-9	-16	-17	-2.3	56	113	169	
MPS	0	1	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	9	10	6	2	0	0	0	0	0	0		
MNS	18	13	10	8	4	3	2	0	0	1	0	0	0	0	0	0	0	0	1	1	8	7	16	17					

MAY

JUNE

Tromsø.

Declination. D = 4° W + Tabular Quantities expressed in Minutes.
HOURLY MEAN VALUES

Gr. M. T.

JULY 1931

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	Q4	QR					
1	-2	-3	-4	-5	-6	-6	-6	-3	-1	2	6	9	10	9	7	6	5	4	5	5	4	-2	-3	-1.4	20	1.8	16	15				
2	-1	-7	-12	-12	-8	-8	-9	-4	-3	4	10	13	12	13	9	7	4	5	5	7	5	-15	-24	-0.8	70	1.3	15	15				
3	-13	-8	-6	-7	-8	-9	-7	-5	-4	0	6	9	12	11	11	8	10	10	8	7	-12	-9	-7	-3	29	1.3	17	17				
4	-3	-5	-5	-7	-8	-8	-7	-4	-0	2	6	8	9	9	7	7	6	4	3	4	5	-9	-7	-4	0.0	46	1.5	17	17			
5	-6	-6	-6	-7	-7	-6	-6	-5	-3	0	4	8	10	10	8	7	6	4	3	4	5	7	-4	-4	0.7	22	1.1	17	17			
6	-4	-7	-11	-9	-9	-9	-8	-6	-4	-1	5	7	8	10	7	7	6	6	6	7	6	0	-6	-12	-0.8	26	1.3	16	16			
7	-1	-3	-5	-7	-7	-1	-7	-6	-6	-4	1	4	6	9	9	7	4	4	5	5	7	6	0	-4	-6	-0.6	26	0.9	14	14		
8	-12	-8	-7	-6	-7	-8	-9	-7	-3	2	7	7	7	5	4	4	4	5	5	3	3	3	2	-2	-4	-0.2	46	0.9	14	14		
9	-6	-5	-6	-7	-7	-7	-6	-5	-4	-4	4	7	7	6	5	5	6	6	6	4	4	4	-10	-10	-0.1	32	0.9	14	14			
10	-5	-8	-9	-7	-6	-6	-5	-4	-1	1	4	7	8	7	6	4	3	4	4	7	6	2	-6	-10	-0.2	29	1.0	14	14			
11	-8	-7	-6	-6	-6	-7	-1	-4	4	4	8	11	14	15	14	12	11	15	23	16	12	3	-12	-18	3.6	46	1.3	15	15			
12	-16	-14	-13	-10	-12	-12	-8	-2	-1	0	2	6	7	8	7	5	5	4	5	6	4	1	0	-0.5	29	1.1	15	15				
13	0	-3	-6	-6	-12	-8	-2	-1	0	2	6	7	9	9	7	7	7	8	9	8	4	1	0	2.7	30	1.8	16	16				
14	-4	-4	-5	-7	-7	-6	-5	-4	-1	-6	-4	3	15	13	7	7	6	4	4	4	5	4	-4	-4	1.8	29	0.5	14	14			
15	-4	-3	-4	-6	-3	-3	-3	-6	-3	4	6	9	7	8	7	6	4	4	5	5	4	2	-4	-4	1.1	25	1.2	14	14			
16	-10	-12	-22	-9	-5	-2	-3	-3	0	2	3	5	7	8	7	6	3	3	3	4	3	2	3	3	3	-0.1	62	1.2	14	14		
17	-4	-7	-6	-7	-6	-5	-2	-1	1	0	4	5	4	5	4	3	3	4	4	4	3	4	-3	-1	1.6	23	1.0	12	12			
18	-2	-3	-4	-3	-5	-5	-4	-3	-3	4	10	11	9	8	7	7	6	4	4	4	3	3	3	3	1.3	14	1.5	12	12			
19	-4	-3	-4	-4	-4	-4	-4	-4	-1	-1	4	7	7	6	5	5	6	6	6	4	4	3	3	3	2.0	13	1.2	14	14			
20	-1	-2	-4	-4	-5	-6	-5	-4	-2	1	3	6	8	7	5	5	6	6	8	7	7	6	6	5	3	20	1.3	14	14			
21	-3	-4	-4	-8	-4	-4	-2	-2	-1	2	5	7	8	6	5	4	3	3	3	3	3	3	3	3	3	0.7	19	1.1	14	14		
22	-5	-5	-4	-5	-4	-5	-6	-5	-3	0	3	5	7	8	7	6	4	4	4	4	3	3	3	3	3	0.8	116	1.0	13	13		
23	0	-1	-1	-3	-6	-4	-5	-4	-1	-1	5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	0.2	84	0.5	12	12		
24	-24	-15	-18	-4	-3	-6	-7	-1	-6	-6	5	16	15	15	15	15	15	15	15	15	15	15	15	15	15	0.8	88	0.8	13	13		
25	-7	-15	-13	-7	-9	-10	-7	-7	-4	-2	1	-2	1	3	12	12	12	12	12	12	12	12	12	12	12	12	12	0.8	40	0.0	14	14
26	-36	-39	-27	-10	-8	-1	-1	-1	3	1	3	5	7	8	6	5	4	3	3	3	3	3	3	3	3	3	-3.3	106	0.6	13	13	
27	-6	-7	-6	-6	-6	-5	-5	-4	-4	-1	0	3	5	7	8	6	5	4	3	3	3	3	3	3	3	3	0.5	23	0.4	13	13	
28	-5	-7	-14	-3	-3	-3	-3	-3	-0	-1	0	3	5	7	8	6	5	4	3	3	3	3	3	3	3	3	-1.6	65	0.8	13	13	
29	-12	-13	-9	-10	-7	-9	-6	-5	-2	-1	0	3	5	7	8	6	5	4	3	3	3	3	3	3	3	3	-2.1	84	0.5	12	12	
30	-27	-24	-21	-14	-9	-9	-6	-5	-4	-3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	-1.0	40	0.0	14	14	
31	-15	-16	-7	-5	-4	-5	-5	-5	-3	-1	1	3	5	7	8	6	5	4	3	3	3	3	3	3	3	3	-1.0	40	0.0	14	14	
M	-7.9	-8.4	-8.6	-7.0	-6.9	-6.1	-5.4	-3.5	-1.6	1.2	4.5	7.3	8.3	8.7	6.7	6.6	6.4	6.7	7.4	6.2	4.0	0.6	-3.1	-5.4	0.4	44.3	1.0	14	14			
QM	-1.9	-3.3	-4.7	-5.8	-6.0	-5.8	-5.2	-3.6	-1.7	1.1	4.1	6.4	7.6	7.3	6.1	5.1	4.4	4.1	4.0	3.8	3.5	2.8	1.4	-0.1								

AUGUST

1	-3	-4	-6	-7	-8	-7	-6	-4	-2	1	4	6	8	8	5	4	3	3	4	5	7	0	-15	-7	-4	-0.3	45	0.1	16	16
2	-4	-5	-5	-6	-6	-5	-3	-1	-1	2	4	6	8	7	5	4	3	2	1	0	1	-1	-2	-0.3	33	0.1	14	14		
3	-7	-9	-6	-9	-6	-9	-10	-5	-5	4	9	10	8	9	7	5	3	3	4	4	6	1	-1	-4	-0.6	26	0.6	14	14	
4	-6	-7	-8	-5	-9	-11	-9	-6	-6	-5	4	6	8	9	7	5	3	3	4	4	6	1	-12	-9	-0.9	55	0.4	13	13	
5	-3	-4	-8	-9	-6	-6	-6	-5	-4	-1	2	4	6	7	7	5	3	3	4	4	6	1	-12	-9	-0.9	55	0.4	13	13	
6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	0.6	12	12	12	
7	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39
8	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39
9	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39	39
10	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39	39	39
11	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39	39	39	39
12	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39	39	39	39	39
13	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39	39	39	39	39	39
14	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39	39	39	39	39	39	39
15	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	39	39	39	39	39	39	39	39	39
16	20	21	22	23	24	25	26	27	28	29																				

RESULTS OF MAGNETIC OBSERVATIONS, TROMSÖ 1931

Tromsö.

JULY 1931

卷之三

Declination. Storminess (+ W). Unit Gamma.

Gr. M. T.

HOURLY MEAN VALUES.

DAY	DIURNAL SUM																													
	I	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	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-13	-10	-1	0	28	28				
2	-4	-12	-23	-20	-6	-8	-12	3	-4	-8	19	22	13	17	7	10	-6	-2	-1	4	-60	-75	-60	-7	118	283	401			
3	-38	-15	-3	-5	-5	-10	-4	-3	-7	-5	4	7	13	11	14	17	16	16	10	5	-4	-10	-13	-1	107	130	237			
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	20	-12	-5	-40	-27	-10	-5	32	143	175			
5	-13	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	12	-17	-12	-2	16	53	69					
6	-8	-9	-21	-10	-8	-10	-7	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	-3	6	73	79			
7	0	0	-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	6	-10	-25	-40	-3	22	88	110			
8	-35	-15	-8	0	-7	-12	-7	-4	3	6	0	0	0	0	0	0	0	0	0	0	0	0	-8	-4	9	96	105			
9	-10	0	0	0	0	-8	-9	0	0	0	0	0	0	0	0	0	0	0	0	0	-19	-35	-3	0	81	81				
10	-11	-14	-13	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	-2	-25	-35	-4	11	105	116				
11	-21	-12	-3	0	-2	0	-7	17	21	18	11	14	21	24	25	20	20	23	60	36	26	0	-45	-60	8	338	148	486		
12	-46	-35	-28	-15	-10	0	0	0	0	0	0	0	0	0	0	-8	0	-5	4	6	3	0	0	-6	13	147	160			
13	7	13	7	0	-18	-8	7	5	0	0	0	0	0	0	0	0	8	20	15	0	0	0	0	3	97	26	123			
14	0	0	0	0	0	0	0	0	0	0	-24	-27	-9	27	22	5	7	17	28	11	18	18	7	-2	3	4	163	62	225	
15	-7	0	3	0	9	8	7	-7	-5	8	8	13	0	0	0	0	0	0	0	0	-5	-23	-12	0	56	59	115			
16	-28	-30	-60	-12	0	1	10	5	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	-5	21	132	153		
17	-8	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	20	20			
18	0	0	5	0	0	0	0	0	0	15	8	23	18	9	5	-2	-4	-5	0	11	5	5	-10	-20	-10	2	104	51	155	
19	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-12	0	0	0	0	0	0	0	-1	5	20	25			
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	15	13	10	13	10	3	73	0	73		
21	-5	-3	3	-8	4	6	9	2	0	0	0	0	0	0	0	0	0	0	13	19	20	2	-5	-5	0	2	78	26	104	
22	0	-6	0	2	6	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	6	14			
23	0	0	8	10	-1	6	-1	-2	-1	-13	-4	36	17	17	22	74	97	113	69	25	-20	-20	-15	-30	17	507	93	600		
24	-75	-40	-45	7	9	-2	-8	-8	-15	-24	6	0	0	-5	-3	0	-3	0	5	7	-10	-13	-15	-8	42	255	297			
25	-18	-40	-30	-2	-13	-17	-8	0	-3	-2	-20	-22	-13	17	-2	39	37	40	59	50	0	-22	-35	-30	-1	242	277	519		
26	-115	-120	-75	-15	-9	13	22	8	15	-1	-2	3	-8	-15	-2	4	9	8	19	20	2	-10	-18	-23	-32	-14	103	445	548	
27	-15	-12	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	10	8	-23	-10	-10	-3	24	90	114		
28	-13	-12	-32	-12	-29	8	-7	-2	5	6	16	21	12	37	20	19	25	23	34	10	12	8	-45	-50	3	283	195	458		
29	-35	-35	-15	-15	-15	-6	-12	-3	5	3	0	0	0	5	12	0	4	7	8	11	3	5	-7	-17	-6	6	63	205	268	
30	-85	-70	-55	-28	-13	-12	-3	-2	-2	-5	-6	0	1	-4	-11	-6	-20	-8	-13	-9	-3	3	-3	-32	-20	-42	-18	10	444	454
31	-45	-48	-7	2	4	0	0	-4	0	0	0	0	0	0	7	5	0	0	0	0	0	0	0	-4	18	104	122			
M	-20	-17	-13	-4	-3	-1	-1	0	1	1	1	3	2	5	2	5	7	9	11	8	2	-8	-15	-18	-1.8	82	125	207		
MPS	0	0	1	1	2	2	2	2	3	4	4	5	3	6	8	9	12	8	4	1	1	1	1	1	1	1	1			
MNS	20	1B	14	5	4	3	3	1	1	2	2	1	2	1	1	1	0	0	3	4	9	16	18							

AUGUST

I	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	8	15	-5	-19	-22	-8	-2	23	58	81			
2	0	-18	-17	-2	-11	-10	-17	-5	16	23	13	0	0	0	0	0	0	10	0	0	0	0	4	-1	14	0	14			
3	-10	-10	-13	0	-11	-17	-12	-8	6	-5	0	0	0	0	-10	-5	-5	-2	0	0	0	0	0	-1	65	97	162			
4	0	0	-13	-12	0	0	0	0	0	0	0	0	0	0	-5	0	18	36	20	33	15	1	-39	-26	2	34	133	167		
5																									128	90	218			
6																														
7																														
8																														
9																														
10																														
11																														
12	-12	-3	0	6	2	0	-5	-3	0	0	0	0	0	-19	0	0	-3	-2	0	20	23	25	-7	-24	-16	68	71	139		
13	-37	-48	-23	-6	2	0	0	-5	0	0	0	0	0	0	0	0	0	0	5	6	15	6	-7	-19	0	40	49	89		
14	-2	5	8	8	9	30	15	12	12	3	15	10	8	0	0	0	0	0	15	25	26	15	5	-9	-8	2	84	143	227	
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	11	3	-3	0	0	6	157	5	162		
16	-67	-48	-25	-32	6	22	18	12	-6	-7	-5	-7	-17	23	42	35	40	36	40	15	27	10	-64	-56	0	326	334	660		
17	-27	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	-2	0	51	51	
18	-11	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	15	46	
19	-20	-98	-45	-29	-9	2	5	2	1	-4	3	6	13	3	2	0	0	5	8	15	33	5	8	-34	-31	-7	111	270	381	
20	-72	-68	-45	3	14	15	-22	32	24	3	-7	-2	8	15	20	-3	18	18	18	13	25	-12	-34	-31	-3	226	296	522		
21	-42	-15	-7	3	9	20	38	22	14	3	-2	-27	-17	5	30	10	10	-12	0	8	-5	-42	-99	-76	-7	172	344	516		
22	-30	-15	-12	0	8	9	12	0	0	0	0	0	0	0	0	0	-12	-20	-7	-4	-15	-4	0	-6	0	134	134			
23	0	0	0	0	0	0	0	0	0	0	0	0	0	-7	-7	5	-2	0	0	5	0	0	0	-11	0	39	27	66		
24	-20	-6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	-13	22	23	45	43	-9	-2	3	140	74	214			
25	-17	-10	-125	-112	-81	15	8	2	9	3	-5	-42	3	15	35	15	30	38	70	3	23	-17	-19	-16	-7	269	444	713		
26	-7	-8	-10	-22	-9	2	3	5	-6	1	5	5	-5	0	-7	3	10	11	0	21	-5	-42	-79	-96	-10	66	296	362		
27	-77	-53	-25	-10	0	0	0	0	0	0	0	0	0	0	5	35	16	-8	15	20	-62	-1	-16	-7	96	261	357			
28	-162	-228	-75	-2	-1	-3	-2	-15	-14	5	5	5	5	-7	20	2	2	-10	-12	-12	-4	-5	0	-2	-6	-8	-21	40	544	584
29	-2	-6	5	6	9	10	13	12	0	0	0	0	0	0	0	0	-10	-12	-12	-8	-17	-25	-42	-11	-7	4	55	152	207	
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	3	46	49	84			
31	0	0	0	0	0	0	-7	0	0	0	0	0	0	0	0	0	0	0	10	5	-17	-29	-16	-2	15	69	84			
M	-25	-26	-17	-8	-3	4	1	3	2	1	1	-1	-1	3	4	2	4	5	9	10	5	-10	-21	-21	-3,2	88	166	254		
MPS	0	0	1	1	2	5	4	4	3	1	1	1	1	3	2	2	3	5	3	6	7	10	11	9	3	0	0			
MNS	25	26	17	9	5	1	3	1	1	1	3	2	2	3	0	1	2	2	1	1	4	13	21	21						

SEPTEMBER

Tromsø.

Gr. M. T.

Declination. D = 4° W + Tabular Quantities expressed in Minutes.
HOURLY MEAN VALUES

OCTOBER 1931

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	QM	QR		
1	-70	-60	-18	-8	-4	-1	0	3	7	7	4	6	5	9	-1	6	-12	3	9	-14	-3	-3	-12	-3	-6.3	152	-1.5	6	
2	-70	-57	-27	-15	-3	-4	-5	-4	-5	-3	5	6	7	0	18	-18	3	6	27	-3	9	-1	-15	-30	-7.0	245	-1.5	6	
3	-30	-30	-54	-7	-4	-2	0	0	-1	-1	-1	5	5	2	3	2	0	-7	1	9	-1	-2	-2	-4	-3	-5.0	130	-1.5	6
4	-18	-21	-21	-8	-4	-3	0	-1	-1	-1	-1	5	5	2	3	2	3	0	15	-6	-9	-9	-21	-15	-3.4	135	-1.5	6	
5	-15	-12	-27	-39	-6	-9	3	0	-6	-3	2	3	-4	6	4	0	3	-18	6	9	-16	-6	-12	-15	-6.3	132	-1.5	6	
6	-40	-18	-21	-12	-4	-2	-3	-2	0	1	0	0	2	2	1	0	0	-6	-15	-6	-4	-3	-8	-15	-6.4	74	-1.5	6	
7	-12	-12	-15	-8	-3	-2	-1	-1	0	-1	0	0	-1	0	0	-1	0	-5	-9	-1	-2	-3	-4	-4	-3.4	30	-1.8	6	
8	-4	-4	-4	-3	-2	-1	-3	-3	0	-1	0	-1	0	0	1	1	0	0	0	-3	-1	-1	-2	-3	-3.0	68	-1.1	5	
9	-4	-4	-8	-8	-2	-2	-1	-3	-4	-5	-4	-2	-2	2	3	3	1	0	-1	-2	-3	-3	-3	-2.2	22	-1.9	6		
10	-3	-3	-4	-4	-4	-3	-4	-3	-2	-1	4	3	2	1	1	0	1	-1	-1	-1	-1	-1	-1	-2.4	43	-1.5	6		
11	-6	-5	-3	-3	-3	-4	-3	-2	-1	0	1	3	4	4	4	2	0	0	-1	-1	-2	-2	-3	-1.5	30	-0.9	8		
12	-15	-5	-6	-6	-5	-4	-4	-4	0	-1	2	5	7	11	8	16	9	6	7	-3	-27	3	-95	-3.5	195	-1.5	6		
13	-48	-36	-33	-21	-15	-8	8	3	1	3	-1	-1	-3	-8	7	0	4	-3	-2	0	-6	-6	-3	-7.7	240	-1.5	6		
14	-3	-7	-8	-5	-5	-3	-1	-4	-4	-3	-1	-1	-2	2	9	6	9	3	-24	-5	-2	-1	-1	-12	-1.2	-4.5	46	-1.5	6
15	-6	-4	-6	-6	-1	-1	-2	-3	-3	-1	-1	-2	2	9	6	9	3	-24	-5	-2	-1	-1	-1	-2.6	90	-1.5	6		
16	-15	-9	-7	-4	-3	-2	-1	0	-1	-1	1	0	4	5	7	0	-2	-3	-5	-5	-4	-6	-1.9	45	-1.3	6			
17	-6	-5	-4	-4	-2	-4	-3	-3	-1	0	0	3	-1	1	0	0	0	3	-15	-24	-9	-9	-3.5	100	-1.5	6			
18	-12	-15	-9	-6	-4	-3	-4	-2	0	0	4	10	-4	12	6	10	11	4	5	5	0	-7	-6	-1.4	40	-1.5	6		
19	-9	-10	-24	-8	-3	0	-4	-1	0	-3	0	0	3	3	3	3	7	-5	-5	-6	-3	-21	-15	-3.0	48	-1.5	6		
20	-3	-8	-3	-3	-4	-4	-3	-2	0	0	0	1	2	1	1	-1	-1	-2	-1	-10	-6	-12	-17	-4.3	45	-1.8	6		
21	-9	-5	-7	-8	-7	-6	-6	-6	-3	0	-1	6	0	7	3	1	-5	0	-1	9	-12	-5	-7	-7	-3.6	50	-1.5	6	
22	-27	-27	-12	-15	-12	-6	-3	-2	-1	-1	-1	4	3	-1	0	0	-1	-7	-18	-6	-6	-9	-5	-50	-6.1	-1.9	99		
23	-7	-6	-5	-5	-4	-4	-4	-4	-3	-2	-1	0	0	1	1	-1	-1	-4	-6	-7	-3	-6	-4	-3.4	45	-2.3	6		
24	-18	-21	-15	-6	-1	-1	-7	-1	-3	-1	-1	0	0	-1	0	-1	-4	-3	-7	-3	-6	-9	-3.9	72	-3.0	6			
25	-8	-6	-5	-5	-5	-4	-4	-4	-3	-2	-1	0	0	0	0	0	-1	5	-33	-15	-7	-7	-7	-4.1	107	-1.8	7		
M	-17.1	-15.2	-14.6	-9.0	-5.5	-2.9	-2.2	-1.5	-1.3	-0.6	0.1	2.0	1.5	2.7	1.9	2.3	0.7	-0.4	2.8	-4.8	-5.5	-10.2	-10.6	-15.0	-4.3	103.0	-1.7	6.1	
QM	-3.9	-3.0	-4.0	-4.0	-3.7	-3.5	-3.4	-2.7	-2.1	-0.7	0.6	1.6	1.4	1.9	1.0	0.4	-0.3	-0.8	-1.3	-2.1	-2.4	-2.7	-3.4	-3.5					

NOVEMBER

1	-8	-9	-4	-9	-6	-6	-5	-4	-4	-3	-3	-2	-1	0	-1	-13	-7	-2	-4	-7	-7	-12	-12	-5.2	50	-4.1	5	
2	-8	-4	-4	-6	-5	-4	-4	-3	-3	-2	-1	0	0	1	0	-3	-3	-6	-7	-10	-12	-12	-4.0	40	-3.7	5		
3	-9	-7	-7	-7	-8	-1	-1	0	-1	-1	-1	4	7	6	9	9	-1	-18	-3	-6	-21	-40	-30	-6.0	105	-3.7	5	
4	-12	-12	-21	-7	-4	0	0	-3	0	-4	0	3	4	8	-4	3	-1	-1	-6	-7	-6	-5	-6	-3.6	48	-3.7	5	
5	-4	-5	-6	-9	-9	-2	3	0	-8	-3	0	-1	3	1	0	0	0	33	7	-12	-13	-22	-11	-14	-5.6	255	-3.6	5
6	-11	-33	-18	-7	-5	9	8	0	0	-4	0	-3	3	3	-8	0	-21	-30	-4	-4	-2	-6	-15	-21	-7.0	100	-3.7	5
7	-20	-7	-15	-12	-6	-2	0	3	-2	-3	-4	-1	9	0	-1	-5	-9	-5	-9	-8	-9	-20	-12	-6.6	175	-3.7	5	
8	-15	-14	-9	-7	-6	-6	-3	0	-6	-3	-3	-1	6	-6	-4	-6	-5	0	-20	-12	-19	-33	-18	-6.6	150	-3.7	5	
9	-30	-24	-24	-9	-6	-1	-4	-6	-6	-2	-2	-5	-1	-1	-1	-1	-5	-12	-7	-6	-5	-5	-15	-27	-10.4	102	-3.7	5
10	-55	-16	-7	-8	-3	0	6	-1	-4	-4	-4	-1	2	1	-1	-12	-6	-9	-3	-4	-9	-10	-10	-7.2	123	-3.7	5	
11	-6	-6	-7	-6	-5	-4	-3	-3	-1	-3	-5	-2	-2	-3	-1	-1	-1	-10	-5	-4	-9	-8	-9	-5.3	45	-3.7	6	
12	-6	-6	-5	-4	-4	-4	-4	-4	-3	-2	-2	-3	-1	-1	-1	-1	-1	-2	-3	-3	-4	-5	-6	-3.5	62	-3.7	6	
13	-7	-6	-6	-4	-3	-3	-4	-4	-3	-2	-2	-3	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-3.0	60	-3.7	4	
14	-15	-18	-3	-1	-3	-6	-1	-2	-2	-3	-1	-1	0	0	2	-1	-20	-15	-6	0	-9	-12	-30	-7.2	130	-3.7	6	
15	-6	-5	-4	-4	-3	-3	-3	-3	-2	-2	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-2.7	157	-3.7	4	
16	-22	-12	-15	-15	-8	-4	-3	0	-1	0	-1	0	0	4	-6	-1	-2	-9	-6	-15	-21	-30	-7.0	150	-3.7	4		
17	-15	-9	-8	-5	-5	-3	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-2.7	102	-3.7	4	
18	-15	-12	-12	-9	-7	-1	-1	-3	-3	-3	-2	-2	-2	-4	-4	-10	0	-1	-3	-5	-15	-24	-4	-10.4	170	-3.7	4	
19	-8	-20	-6	-9	-2	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-6.3	64	-3.7	4	
20	-7	-17	-8	-4	-6	-4	-5	-4	-5	-4	-4	-4	-4	-4	-4	-4	-2	-8	-1	-2	-2	-6	-4	-4	-1.7	155	-3.6	4
21	-7	-5	-6	-7	-7	-4	-4	-5	-5	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-3.8	128	-3.8	3
22	-6	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-3.5	50	-3.5	4
23	-5	-5	-5	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-3.5	50	-3.5	4
24	-7	-9	-7	-9	-6	-2	-1	-3	-3	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-2.8	20	-3.7	4
25	-5	-5	-4	-1	-1	-2	-4	-3	-2	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-2.5	27	-3.7	4
M	-12.3	-11.9	-9.7	-7.9	-4.9	-2.5	-1.4	-2.2	-3.0	-3.2	-2.4	-0.8	-1.2	0.6	-1.8	-1.6	-3.3	-7.1	-2.6	-6.5	-8.4	-11.3	-11.8	-13.1	-5.4	87.2	-3.7	4.6
QM	-5.6</td																											

RESULTS OF MAGNETIC OBSERVATIONS, TROMSÖ 1931

Tromsö.

OCTOBER 1931

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

Gr. M. T.

DAY	Declination. Storminess (+ W). Unit Gamma. HOURLY MEAN VALUES.																							M	DIURNAL SUM			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		PS	NS	AS	
1	-218	-188	-48	-15	-3	7	12	20	30	24	9	13	11	26	-10	17	-40	12	34	-41	-3	-2	-30	J	-16	216	598	814
2	-218	-178	-78	-37	2	-3	6	-5	-3	12	17	13	18	-6	55	-63	10	22	94	-4	37	13	-40	-89	-18	203	730	1023
3	-88	-88	-168	-12	0	4	12	10	7	12	7	3	0	4	3	-3	-25	7	34	6	-1	0	-3	I	-12	110	388	498
4	-48	-58	-58	-12	-1	2	12	8	4	-1	2	11	11	-7	12	15	10	62	54	-14	-23	-22	-60	-39	-6	196	343	539
5	-38	-28	-78	-117	-8	-18	22	10	-13	-8	5	3	-22	14	10	-3	10	-58	24	36	-48	-12	-30	-39	-16	134	520	634
6	-118	-48	-58	-27	-3	4	2	2	7	4	-3	-7	1	2	0	-3	0	-18	-46	-14	-5	-2	-18	-39	-16	22	409	431
7	-28	-30	-38	-15	2	4	7	10	12	2	-6	-2	-7	2	0	0	-14	-26	0	0	0	0	0	-5	41	166	207	
8	0	0	0	0	0	8	13	0	0	-2	-1	0	0	0	0	0	0	0	0	0	0	0	0	-6	25	171	196	
9	-3	0	-13	-12	4	7	-2	-5	-10	-11	-10	1	15	4	8	0	0	0	0	0	0	0	0	-1	40	64	104	
10	0	0	0	0	0	0	-5	0	0	0	9	3	0	0	3	4	7	3	2	-27	-55	-21	-3	31	108	139		
11	-8	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	53	53	
12	-38	-6	-8	-7	-5	-3	0	10	10	10	15	11	-15	22	20	37	55	32	24	31	-3	-82	0	-309	-7	292	461	753
13	-148	-108	-98	-77	-38	-13	37	20	12	12	12	12	-35	-31	-5	-18	-10	-6	4	-14	-3	-4	-7	-21	-23	88	636	724
14	-2	-10	-13	-5	2	10	0	-2	-3	-3	-8	-17	0	-6	-12	-2	-60	-8	22	-14	-33	-30	-11	-10	20	267	287	
15	-8	-3	-8	-7	10	15	10	3	-3	-8	2	1	23	14	25	7	10	-78	-13	-1	4	-22	-27	-29	-3	124	207	351
16	-38	-18	-10	0	0	0	7	0	0	0	0	0	7	-6	10	15	22	2	-3	-4	-11	-9	-3	-9	-2	63	111	174
17	-8	-8	-6	-2	4	-3	2	0	2	2	-3	3	-7	0	0	0	0	0	15	-43	72	-20	-19	-7	28	191	219	
18	-28	-36	-38	-17	-8	-1	-2	-2	0	0	0	28	-19	34	15	32	37	14	14	6	-15	-12	10	-9	-1	203	388	
19	-18	-23	-68	-14	2	12	-3	7	-7	-8	7	-7	3	4	5	19	-10	-16	22	-14	-17	-62	-40	-89	-11	372	477	
20	2	-15	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	-2	-64	-28	-12	-30	-46	-8	202	204		
21	-18	-6	-10	-14	-11	-8	-8	-10	-3	2	-5	13	-7	16	5	2	-18	2	-1	-24	-33	-10	-13	-14	-7	40	213	253
22	-78	-28	-37	-28	-8	2	10	7	-8	-3	13	-17	-11	-5	0	-20	52	24	-16	-11	-2	-20	-9	-12	88	379	467	
23	-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	
24	-45	-54	-34	-5	10	39	8	21	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	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
26	-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
27	-25	-14	-34	-15	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	-7	-12	-64	-15	-4	5	13	1	-1	-5	-17	1	23	9	10	41	13	25	3	59	117	-10	-12	0	0	188	201	389
29	-8	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	-85	-144	-134	-75	-125	-6	-37	11	-4	-5	-40	-43	-2	-26	20	131	123	75	117	49	10	-119	-118	-97	-4	564	458	1022
31	-10	-4	-11	10	15	4	15	6	-1	0	-10	-13	-17	-1	-30	-9	-17	-20	-33	19	-28	-21	-28	-17	-10	50	289	339
M	-44	-38	-36	-17	-6	2	4	4	3	0	-2	1	0	3	3	6	4	1	14	-9	-10	-25	-24	-39	-8.6	112	317	429
MPS	0	0	0	0	0	2	4	6	5	4	3	2	5	3	4	6	7	12	12	11	18	7	2	0	0	0	0	
MNS	44	38	36	17	8	2	2	1	2	5	1	2	3	5	4	4	6	4	6	8	10	5	16	15	26	39		

NOVEMBER

1	-7	7	-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	
2	-8	-7	8	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	-10	-2	-4	-5	-12	13	9	13	9	5	13	19	30	24	33	35	2	-51	1	-7	-8	-17	-20	-1	-1	47	116	
4	-20	-20	-51	-8	1	15	14	3	12	-2	8	17	17	32	-12	15	4	6	-9	-9	-5	-13	-82	-40	-7	206	381	
5	0	0	0	-13	-14	7	24	13	-16	0	8	5	5	9	3	17	-91	36	-27	-30	-58	-20	-28	-6	142	297	439	
6	-18	-90	-41	-8	-2	45	41	13	12	-5	8	-3	15	14	-25	5	63	-91	-1	-2	7	-3	-32	-50	-11	160	434	594
7	-50	-2	-31	-23	-4	7	14	23	4	0	-4	2	-25	4	0	-13	-23	-1	-7	-17	-13	-15	-52	-20	-10	54	298	352
8	-30	-28	-13	-5	36	5	24	13	-8	0	-2	-2	-25	-16	-9	-15	-11	9	11	-57	-25	-47	-42	-90	-10	147	376	523
9	-80	-60	-61	-13	-15	15	9	-2	-8	-10	0	-1	-15	-1	0	-13	-33	-16	-9	-5	-8	-25	-13	-70	-22	24	565	589
10	-160	-35	-6	-10	6	15	34	10	0	-5	-7	5	0	-4	0	-37	-13	-21	-1	-2	-15	-18	-14	-15	-12	71	362	433
11	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	
12	-32	-13	-14	-13	-3	3	5	6	12	9	7	10	8	20	-13	4	-1	-21	-9	-37	35	-23	-81	-1	-9	165	573	738
13	-32	-23	-24	-17	-10	13	23	22	1	-16	16	-2	18	17	-13	-4	-31	-7	-37	-65	-163	-31	-71	-17	165	340	468	
14	-10	-51	-4	-15	-5	7	18	5	7	-4	-3	-6	-2	20	-18	7	-1	-31	-7	-37	-65	-23	-51	-1	-8	144	352	476
15	-4	-41	-12	0	-5	-6	-2	4	-2	4	-7	-6	-2	8	0	0	-21	2	1	-5	-6	-3	-1	-2	-2	221	165	386
16	-57	-23	-34	-35	-20	0	0	0	0	-3	18	-22	-12	-8	-3	-3	-16	8	-11	-41	-57	-65	-163	-31	-71	-17		

Tromsø.

Horizontal Intensity. H = 11500 + Tabular Quantities expressed in Gamma.

Gr. M. T.

JANUARY 1931

DAY	HOURLY MEAN VALUES																							M	R	QM	QR		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23						
1	71	70	71	80	80	85	83	80	80	78	77	78	90	80	83	88	88	98	89	110	130	110	-50	110	82	390	B1	19	
2	55	-10	75	87	83	78	88	84	78	77	80	81	80	81	80	81	80	81	82	95	112	80	90	79	235	B0	6		
3	80	78	77	74	76	79	79	78	76	76	78	79	80	80	79	79	78	79	78	79	80	78	79	78	20	79	4		
4	79	78	76	76	79	78	78	77	78	75	76	72	79	80	80	79	80	80	78	73	75	73	69	77	35	77	12		
5	62	76	78	79	80	80	80	79	79	79	79	79	80	80	80	81	81	81	82	82	81	82	72	79	30	79	6		
6	72	80	80	85	89	90	88	84	81	80	81	81	81	81	81	82	82	81	80	79	79	78	79	82	55	82	12		
7	79	80	80	81	81	82	82	81	80	80	81	81	80	80	80	79	79	78	79	80	79	78	79	79	20	80	5		
8	76	75	79	78	80	80	81	80	79	79	79	78	78	77	78	79	79	78	79	78	79	78	79	79	15	79	4		
9	78	20	-40	30	40	55	68	88	82	81	83	110	93	122	155	148	138	110	92	80	60	65	-140	73	425	80	5		
10	-35	78	100	105	55	120	112	80	68	78	90	90	92	83	90	95	100	110	120	-160	77	80	70	68	550	77	6		
11	70	72	78	77	76	75	70	69	72	77	78	78	81	90	135	130	118	105	70	98	60	84	255	76	11				
12	-5	72	75	78	79	80	77	71	78	82	75	75	80	85	92	110	140	160	165	110	100	98	85	90	290	77	10		
13	68	71	70	70	73	76	77	73	75	80	79	77	75	79	80	88	98	92	98	97	45	50	87	77	200	76	10		
14	81	77	75	74	75	75	75	75	76	77	79	82	82	80	80	80	79	79	78	77	76	76	60	77	80	77	9		
15	20	42	85	78	75	77	78	71	70	77	77	83	91	100	85	79	81	98	50	68	-12	8	68	185	77	6			
16	-40	-142	-22	90	85	80	80	85	58	58	107	105	140	140	230	180	200	10	-40	-10	-40	-170	-220	-320	25	840	77	5	
17	-185	90	-20	0	60	70	100	95	90	90	110	190	240	240	195	220	125	75	80	50	82	10	-90	-125	75	735	78	5	
18	-45	52	60	75	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	615	77	5			
19	-20	40	95	78	78	77	75	73	88	100	110	125	75	82	93	88	80	78	75	72	70	90	68	-90	71	435	76	5	
20	-150	72	82	82	81	81	80	80	79	77	78	80	80	83	83	140	200	230	140	115	60	-20	-55	81	580	79	5		
21	72	70	60	90	88	98	93	80	74	76	75	73	77	78	76	85	100	107	128	60	-28	20	58	74	210	78	6		
22	60	68	71	73	80	80	89	83	77	62	70	77	79	73	80	82	79	79	78	77	75	65	65	77	65	77	9		
23	8	50	73	80	80	80	82	81	79	75	73	77	78	81	90	79	81	80	78	77	70	75	76	79	30	79	9		
24	68	70	77	78	82	84	81	80	81	80	79	78	79	79	79	80	80	81	80	79	78	77	77	79	645	78	5		
25	76	77	78	79	80	81	80	79	76	76	78	79	80	80	95	98	110	0	-160	-240	-230	-175	32	78	78	78	9		
M	27.9	56.0	57.0	75.0	77.5	82.2	83.2	79.8	77.0	77.8	82.1	86.5	89.2	89.7	96.2	102.4	101.7	95.0	93.7	72.4	60.4	42.9	25.7	9.0	72.4	297	78	9	
QM	75.5	76.3	76.9	77.8	79.3	80.4	80.3	78.8	78.1	77.7	77.9	78.4	79.2	80.1	79.7	80.4	80.7	80.5	80.5	79.7	79.9	77.8	76.7	75.7					

FEBRUARY

1	62	80	85	92	90	90	90	86	83	81	80	73	76	79	80	80	81	86	110	-30	-80	-130	-10	57	440	B3	12	
2	-330	-210	100	95	100	110	100	83	80	100	93	95	98	95	100	95	93	83	85	110	98	40	40	90	59	670	B6	22
3	80	45	-50	40	42	28	48	80	103	75	72	78	80	82	95	97	120	115	110	120	110	98	82	79	71	310	80	4
4	78	80	80	76	72	76	87	65	70	60	80	80	90	85	80	97	98	120	118	90	-180	-5	88	71	450	79	11	
5	78	-60	-80	70	85	90	87	84	81	80	79	79	80	82	82	83	81	81	84	95	35	70	72	66	290	82	11	
6	80	80	82	82	80	82	85	80	77	76	74	80	81	83	85	86	92	90	93	108	130	65	35	83	165	84	19	
7	80	80	80	78	85	81	90	87	80	73	68	73	85	100	93	83	88	90	92	110	110	50	-10	76	285	84	16	
8	-20	35	85	97	100	90	90	90	83	85	82	87	80	81	81	82	82	82	82	83	80	85	38	75	155	84	10	
9	62	20	60	90	88	85	87	80	78	78	81	83	87	91	90	102	97	110	98	82	70	77	82	175	84	20		
10	58	30	60	78	92	82	81	80	83	82	82	67	78	80	90	91	93	95	93	87	82	81	90	85	16			
11	82	81	80	80	83	87	81	77	75	75	78	80	84	93	92	85	90	110	85	100	88	90	88	85	85	120	82	15
12	82	82	82	83	84	86	86	87	83	80	80	85	88	95	98	90	90	91	105	110	100	90	88	87	110	84	11	
13	-5	10	60	20	28	92	87	70	77	90	98	105	110	90	110	110	140	165	155	90	-55	-180	-180	-40	39	710	81	7
14	5	-150	-190	-60	-30	80	75	70	77	90	100	160	150	230	135	130	130	130	130	130	130	130	130	130	130	220	81	7
15	15	40	20	30	80	70	70	90	100	90	130	145	160	120	140	140	150	165	90	-40	-210	-310	-170	-80	38	840	81	7
16	-220	-55	70	78	82	82	90	80	80	78	80	92	85	83	82	80	87	81	79	76	80	79	79	62	425	81	7	
17	80	79	78	80	81	81	80	78	75	75	72	72	75	82	80	88	80	87	90	100	100	95	63	215	80	22		
18	50	80	82	81	81	83	82	78	77	72	72	78	80	81	82	83	88	90	90	90	90	90	90	72	210	79	9	
19	-45	-80	-90	0	50	-60	-110	50	50	80	85	95	150	240	305	370	310	310	310	310	310	310	310	310	310	205	81	11
20	25	20	55	87	85	80	78	73	62	58																		

RESULTS OF MAGNETIC OBSERVATIONS, TROMSÖ 1931

Tromsö.

JANUARY 1931

Horizontal Intensity. Storminess (+ N). Unit Gamma.
HOURLY MEAN VALUES.

Gr. M. T.

DAY	HOURLY MEAN VALUES.																							M	DIURNAL SUM							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		PS	NS	AS					
1	0	-26	-9	-5	0	0	-4	7	4	0	0	0	11	0	0	3	0	10	0	24	47	28	-131	30	-1	158	131	289	0			
2	8	-26	-9	-5	0	0	-4	7	4	0	0	0	0	0	0	0	0	0	0	16	33	2	12	-2	87	127	214	0				
3	0	-41	-191	-90	2	-5	-11	14	12	-1	-7	25	24	14	37	56	27	29	17	1	0	0	0	0	0	0	0	0				
4	5	-17	-8	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				
5	-55	-5	2	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				
6	-8	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				
7	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				
8	0	-3	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				
9	0	-59	-119	-50	-41	3	35	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
10	-111	1	23	28	-23	41	35	2	-10	1	12	12	13	4	11	15	20	30	40	-239	-153	0	6	0	-10	334	519	853	1			
11	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				
12	-75	0	0	0	0	0	0	0	0	-6	0	-5	0	0	0	0	0	0	0	10	55	50	39	27	-7	23	8	204	19	223	0	
13	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	60	80	66	32	23	33	13	370	86	456	0	
14	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	18	12	19	19	-32	-46	12	0	89	80	168	0
15	-55	-33	-10	2	-2	0	1	-5	-6	0	12	12	-1	4	12	21	6	0	0	18	-28	-8	-67	-9	0	0	0	12	15	27	0	
16	-115	-217	-97	14	8	3	3	9	-18	-19	29	27	62	6	151	100	120	-70	-120	-89	-118	-247	-298	-395	-53	532	1801	2333	2			
17	-260	14	-97	-78	-18	-9	21	17	12	13	33	112	162	161	116	140	45	-5	-29	4	-67	-166	-200	-3	680	929	1779	1				
18	-120	-24	-17	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	90	0	-40	-169	-165	-97	-211	-220	213	1074	1287	1
19	-95	-36	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	178	330	508	0
20	-227	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120	150	61	37	-18	-97	-132	2	536	489	1025	1	
21	-4	-7	-18	11	8	17	12	0	-4	0	-3	0	0	0	-3	-4	5	20	27	49	-18	-106	-57	-18	-4	149	242	391	0			
22	-14	-5	0	0	-2	0	0	0	0	-14	-6	0	0	0	0	0	0	0	0	0	0	0	0	-3	-10	-2	12	60	72	0		
23	-68	-27	-5	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	111	134	0	
24	-7	-6	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	1	0	13	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	18	30	-79	-238	-318	-307	-251	-47	63	1195	1258	1
M	-48	-20	-20	-3	-2	2	3	1	-1	0	4	8	10	10	16	22	21	14	13	-7	-19	-35	-51	-67	-6.2	172	322	494	0.4			
MPS	1	1	1	3	1	2	3	2	1	2	4	8	10	10	17	22	21	17	19	13	20	7	3	3	2	68						
MNS	48	21	21	6	3	1	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

FEBRUARY

1	-77	-25	-8	-4	2	0	0	0	-8	0	0	0	-6	-3	0	0	0	0	4	29	-110	-140	-209	-88	-26	35	670	705	1		
2	-408	-288	21	20	14	28	38	16	-3	-8	10	0	0	-6	-3	0	0	0	4	29	-110	-140	-209	-88	-26	35	670	705	1		
3	2	-33	-129	-40	-39	-54	-34	-1	-1	-23	-5	-3	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	-1	-3	3	15	-6	-1	-2	5	2	0	0	0	-2	15	15	38	33	28	39	29	17	1	0	0	0	0	0	
5	-3	-163	-164	-15	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35	8	-261	-86	8	-8	180	374	554	0	
6	0	0	-1	0	-1	2	5	0	-1	0	-2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	-5	0	-3	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
8	-107	-53	-3	11	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
9	-20	-63	-25	4	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
10	-21	-50	-20	-2	11	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	0	0	0	0	0	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
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	-85	-70	-20	-61	-1	-10	5	-11	-2	13	21	26	30	9	29	58	83	-33	-29	-3	15	21	15	5	-3	2	55	9	64	0	
14	-75	-230	-270	-141	-51	-2	-12	-6	-8	13	23	81	70	151	54	48	98	67	16	-48	27	-101	-580	-429	-56	-27	285	1285	1566	1	
15	-65	-40	-60	-51	-1	-22	-12	-9	-9	23	23	11	50	64	78	58	82	6	-123	-292	-39	-250	-159	-43	443	1475	1918	2			
16	-300	-135	-10	-3	0	0	0	5	-4	-12	-28	-11	-6	-6	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	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
18	-30	-10	-3	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	-14	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	-56	-62	-28	4	2	2	0	0	-2	-1	0</td																				

Tromsø.

Gr. M. T.

Horizontal Intensity. $H = 11500 + \text{Tabular Quantities expressed in Gamma.}$
HOURLY MEAN VALUES

APRIL 1931

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	QM	QR		
1	81	81	81	81	81	80	75	65	57	52	50	53	70	90	108	140	175	215	110	-190	45	45	30	-30	69	635	73	33	
2	-95	-3	78	100	52	22	70	50	40	130	180	200	220	180	200	230	170	150	145	0	-20	-140	60	80	70	290	79	33	
3	79	90	90	89	85	80	72	57	48	50	48	53	75	70	122	220	280	265	150	45	0	-20	-140	60	82	625	74	42	
4	98	89	80	73	80	79	71	63	54	49	47	48	68	87	82	83	100	130	110	112	40	-20	-90	-130	59	390	72	36	
5	-110	-70	-5	80	92	90	80	72	59	54	40	43	53	65	72	79	78	73	80	81	79	79	80	55	255	72	35		
6	80	80	80	79	79	78	74	67	59	48	40	47	65	90	83	88	90	88	87	84	80	79	78	75	75	65	75	43	
7	76	81	83	83	81	79	74	65	54	48	43	45	58	75	73	80	85	89	90	90	80	33	48	70	105	72	40		
8	-8	58	63	83	83	81	79	75	69	59	52	47	50	52	67	80	122	128	105	93	91	88	25	10	-105	61	295	73	33
9	-65	22	45	80	78	71	69	60	55	50	57	58	85	72	110	92	132	125	110	93	72	-20	-95	60	310	74	33		
10	-30	10	-80	-150	-90	45	85	58	50	60	58	80	140	150	148	150	137	118	110	67	10	-30	-205	-70	34	540	73	36	
11	62	82	84	81	80	74	63	58	67	48	45	65	90	170	180	250	123	85	78	92	73	50	60	60	78	90	315	73	36
12	78	77	75	73	71	68	61	55	49	46	50	50	53	60	68	70	78	80	80	79	78	77	76	67	40	67	34		
13	75	72	70	70	70	65	54	46	43	48	49	55	60	69	85	70	76	79	80	76	75	75	75	67	50	66	37		
14	75	74	75	76	74	71	66	56	45	40	40	46	45	57	66	78	90	98	108	103	85	80	-30	-88	38	59	290	68	40
15	48	80	87	82	79	72	59	52	48	47	42	47	60	75	98	100	127	118	118	82	-20	-25	5	28	63	235	68	38	
16	42	38	50	77	80	79	72	62	50	41	41	47	60	65	70	75	82	89	90	88	88	90	90	85	69	85	73	49	
17	82	78	73	73	78	77	70	59	48	41	43	52	55	82	72	85	89	90	95	88	58	0	-10	52	65	170	69	39	
18	60	40	-15	-120	5	48	70	62	67	63	42	57	72	100	160	145	108	103	108	27	-60	-27	67	65	435	68	37		
19	62	52	60	68	72	70	62	59	50	50	50	52	50	57	92	128	205	200	162	-50	-360	-140	-140	-280	27	810	68	37	
20	-360	-330	-135	-40	-30	30	75	35	78	95	160	195	80	95	160	145	100	83	73	58	48	60	71	72	760	66	38		
21	74	73	71	70	68	61	57	49	43	48	38	42	55	60	67	71	75	81	80	97	100	80	71	79	68	105	65	43	
22	78	35	38	28	35	42	52	55	50	30	52	42	75	78	70	70	110	140	128	93	22	-12	40	-35	55	375	66	38	
23	-190	0	70	70	71	70	63	58	51	47	45	48	70	87	108	115	112	112	93	77	70	64	40	-32	55	390	67	38	
24	-100	-2	35	62	73	70	61	51	41	38	35	41	48	58	73	82	90	105	103	90	80	72	70	55	20	54	240	67	45
25	40	62	64	65	70	63	57	50	44	45	46	67	75	120	133	122	133	135	150	110	-50	-40	-102	-22	62	320	66	37	
26	75	79	77	74	68	62	52	43	45	25	40	52	55	63	63	72	77	80	80	80	70	48	42	-42	57	210	66	37	
27	-40	52	60	78	70	60	54	49	46	42	50	51	55	60	65	75	85	82	79	70	68	70	60	60	210	65	38		
28	70	70	70	70	68	65	59	50	48	45	47	50	52	68	70	70	71	83	82	80	83	78	70	67	65	39	66	38	
29	60	32	58	73	71	63	56	51	49	52	38	50	55	62	65	72	78	85	98	90	80	68	61	60	64	85	65	38	
30	M	13.7	38.0	51.8	56.1	61.9	67.7	66.0	58.0	51.9	48.3	50.1	57.4	67.6	78.1	92.9	101.8	108.6	111.1	98.4	65.2	42.2	38.7	20.3	17.7	61.2	299	69	38
QM	86.4	76.3	76.4	76.0	75.0	72.0	66.1	58.3	50.0	45.4	44.9	48.2	57.0	64.5	70.1	75.1	78.8	81.5	82.2	80.8	78.4	76.6	76.1	76.4					

MAY

1	40	40	60	70	69	63	54	43	41	43	58	42	49	56	68	72	79	92	90	85	81	79	78	78	64	80	44						
2	70	20	8	42	67	58	50	53	40	42	43	48	72	53	72	67	78	83	79	74	71	71	70	59	135	66	41						
3	71	11	73	70	68	57	44	40	43	45	42	38	50	69	67	80	85	95	112	115	52	32	18	2	60	160	65	41					
4	50	28	18	52	62	60	60	57	52	49	50	48	60	98	82	80	86	90	100	85	80	85	50	62	135	67	32						
5	59	68	60	70	67	63	70	65	57	50	44	45	67	75	120	133	122	133	135	150	110	-50	-40	-102	-22	62	320	66	37				
6	52	65	28	37	65	85	70	42	10	42	80	88	98	105	82	105	160	140	123	85	58	50	48	70	105	60	38						
7	70	72	-50	-500	-600	-150	95	80	40	40	110	125	140	98	210	140	125	110	180	60	-90	-10	0	0	11	1030	66	38					
8	7	-8	45	60	60	58	55	62	57	48	30	40	65	80	70	80	88	90	93	73	70	64	63	63	150	66	37						
9	67	68	63	59	56	52	48	41	38	37	40	45	58	67	88	80	75	78	77	77	72	71	70	65	60	55	59	41					
10	50	48	61	61	59	50	39	35	32	47	57	67	73	73	81	80	86	80	79	79	79	79	62	70	64	49							
11	79	78	74	70	69	62	58	53	50	45	48	80	80	88	98	110	137	175	160	50	-55	-210	-330	-160	37	640	67	35					
12	-120	-80	-105	-40	-10	20	52	70	68	50	57	80	80	86	88	90	92	98	130	145	128	97	60	-150	-65	-48	27	465	64	40			
13	-20	58	68	63	70	65	62	60	57	40	37	49	65	70	68	70	88	108	108	152	165	185	30	-90	-250	-120	-200	29	730	67	35		
14	-220	-185	-75	70	95	75	70	52	60	52	58	67	62	70	88	75	88	127	140	30	-50	-310	-240	-270	-3	720	66	34					
15	-260	-230	-380	-380	-30	-260	-160	30	115	100	120	142	280	190	190	165	110	115	100	140	178	188	175	112	80	-5	15	-40	-130	-2	870	66	34
16	-55	62	10	30	62																												

RESULTS OF MAGNETIC OBSERVATIONS, TROMSÖ 1931

Trømsö.

APRIL 1931

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

Gr. M. T.

HOURLY MEAN VALUES.

DAY	HOURLY MEAN VALUES.																							M	DIURNAL SUM				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		PS	NS	AS	C	
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	388	500	888	I	
2	-17	-84	-4	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	43	355	399	O	
3	-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-17	43	466	1130	I	
4	18	8	-2	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	664	486	1130	O	
5	-190	-151	-87	-2	11	11	6	5	2	4	-7	-6	-5	-2	0	4	0	-6	0	0	0	0	0	-14	198	528	724	O	
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-17	43	456	499	O	
7	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	6	19	O	
8	-88	-23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	33	92	115	O	
9	-145	-59	-37	-2	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-12	130	425	555	O	
10	-110	-71	-162	-232	-171	-34	11	-9	-7	10	11	31	82	83	75	73	57	36	27	-15	-70	-109	-284	-150	-39	498	1424	1920	I
11	-18	0	0	0	0	-5	-11	-9	10	-2	18	41	112	113	177	46	5	-4	9	-9	-30	-19	-19	-2	17	531	128	659	O
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	1	2	3	O	
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	O	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	22	O	
15	-28	5	12	7	4	-3	0	0	2	0	0	5	12	30	51	39	38	2	-99	-102	-71	-48	-5	-5	309	420	586	O	
16	-34	-37	-26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	97	104	O	
17	0	0	-5	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	
18	-16	-35	-90	-195	-70	-24	4	25	21	20	-2	8	19	4	15	15	11	18	15	-21	-77	-86	-24	-5	103	218	321	O	
19	-14	-23	-15	-7	0	0	-3	0	0	7	6	24	-5	-6	24	56	129	121	82	-130	-439	-217	-216	-355	383	694	1077	I	
20	-434	-402	-206	-110	-99	-34	16	-17	31	52	136	148	26	34	94	73	23	8	-9	-21	-28	-13	0	0	-41	449	1430	1879	O
21	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	O	
22	6	-37	-33	-42	-34	-22	-7	3	3	-13	8	-5	21	17	4	-2	33	60	47	14	-54	-85	-33	-108	-11	216	475	691	O
23	-262	-72	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	
24	-172	-74	-36	-8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	
25	-28	-5	-3	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	352	391	O	
26	3	7	6	4	-7	-12	-16	-7	-4	-18	-5	2	0	3	-2	0	0	0	0	0	0	0	0	0	0	0	0	O	
27	-112	-20	-11	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	
28	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	O	
29	-10	-39	-14	0	0	0	0	0	0	9	-6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	
30	-10	-39	-14	0	0	0	0	0	0	9	-6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	
M	-63	-38	-25	-20	-13	4	0	0	2	3	5	9	11	15	23	27	30	30	30	17	5	2	0	0	0	0	0	O	
MPS	64	39	25	21	14	5	1	2	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	
MNS	64	39	25	21	14	5	1	2	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	

DAY	HOURLY MEAN VALUES.																							M	DIURNAL SUM					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		PS	NS	AS	C		
1	-32	-31	-11	0	0	-5	-7	-3	0	0	14	-5	-3	0	0	0	0	9	5	2	0	0	0	-2	30	82	112	O		
2	-54	-64	-28	0	0	-5	-7	-3	0	0	2	-2	-10	-5	7	-1	6	7	14	32	36	-25	-43	-58	-71	104	218	320	O	
3	0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-7	21	188	209	O		
4	-42	-43	-53	-18	-5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	104	216	320	O		
5	-11	0	0	3	-4	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	332	332	332	O		
6	-20	-6	-43	-33	-3	22	13	-8	-35	-1	36	40	43	43	46	46	46	54	55	54	70	31	-127	-176	-95	436	522	984	O	
7	-2	-1	-121	-570	-668	-213	38	30	-35	-1	36	40	43	43	44	44	44	50	50	50	50	50	50	50	50	50	50	O		
8	-65	-79	-26	-10	-8	-5	5	7	-17	-12	7	13	-2	3	-1	4	9	5	47	29	58	-19	-167	-85	-74	-73	657	2000	2675	O
9	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	O		
10	-14	-15	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O		
11	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	O		
12	-193	-152	-175	-107	-74	-39	-1	23	25	10	16	36	15	3	2	2	22	51	51	49	49	49	49	49	355	1080	1435	I		
13	-93	-14	-3	-7	0	0	-8	5	7	-5	8	0	9	7	-2	-6	29	72	72	106	-47	-186	-325	-194	-373	-38	334	1245	1579	I
14	-293	-259	-148	-26	23	14	3	18	12	16	22	7	5	17	-1	-1	9	46	59	59	49	-49	-127	-384	-312	-69	-235	1151	1386	I
15	-333	-334	-403	-452	-289	-32	4	-9	5	3																				

Tromsø.

Horizontal Intensity. H = 11500 + Tabular Quantities expressed in Gamma.
HOURLY MEAN VALUES

Gr. M. T.

JULY 1931

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	QM	GR.	
1	63	65	68	64	61	57	50	41	33	32	33	45	38	65	80	88	83	79	78	74	70	67	-10	-30	54	200	62	56
2	32	30	50	72	82	70	60	45	40	30	35	60	100	132	78	112	100	85	72	83	10	-110	-340	-140	35	560	66	54
3	-10	68	65	62	62	60	53	50	50	52	48	46	65	110	112	100	85	72	83	10	-110	-340	-140	72	250	64	55	
4	47	68	76	71	60	52	47	49	47	48	32	31	52	63	85	110	135	155	148	90	-90	-70	-30	22	54	305	64	55
5	40	60	73	66	62	60	62	55	40	29	36	35	32	51	63	77	88	87	85	80	30	-50	20	53	165	64	59	
6	53	45	52	69	68	62	52	40	38	35	41	55	62	88	60	62	82	115	130	85	62	50	60	68	64	110	65	52
7	68	65	62	60	58	53	50	46	39	41	43	55	55	59	62	70	80	90	98	100	65	-18	-10	-28	55	175	64	49
8	-30	-5	78	80	68	56	46	51	33	39	45	50	67	75	80	76	78	82	87	85	78	61	42	15	55	195	63	54
9	55	72	70	70	70	66	57	47	42	47	52	55	60	64	70	75	90	91	93	89	82	58	20	-50	60	180	68	48
10	35	60	70	78	73	67	59	46	49	56	60	60	61	67	82	92	95	100	87	68	15	-38	61	190	68	38		
11	0	65	80	80	70	57	37	32	47	63	70	70	65	130	140	135	140	147	157	110	80	30	-48	-40	72	260	67	46
12	8	20	25	80	70	68	59	48	40	42	48	47	60	73	77	85	87	90	98	105	103	90	89	66	135	68	50	
13	88	68	70	52	50	50	60	52	48	43	52	50	67	132	148	145	145	145	145	92	80	72	80	84	175	67	46	
14	76	69	63	50	55	60	49	58	45	62	82	90	40	70	110	90	110	205	180	118	100	68	60	62	82	200	67	45
15	60	70	77	58	80	68	60	32	40	40	70	48	60	90	85	108	118	110	83	68	40	-90	-80	59	335	67	45	
16	-30	-70	-260	55	65	53	60	60	50	33	47	73	68	83	82	90	95	83	80	75	78	68	-15	41	560	67	44	
17	-90	-65	52	65	78	62	60	49	42	45	48	52	57	62	75	81	92	91	87	84	79	68	62	54	275	68	49	
18	18	75	72	62	65	60	38	48	42	30	40	60	67	72	110	105	97	105	115	92	70	31	10	58	65	160	68	45
19	70	72	76	70	69	62	55	43	35	30	32	50	65	72	103	115	90	65	60	61	68	55	57	59	110	60	50	
20	58	59	63	68	68	60	47	35	28	27	30	48	58	72	80	93	101	102	110	107	90	77	72	40	66	95	60	56
21	38	69	60	72	60	52	53	43	40	32	40	50	62	60	90	100	102	120	115	108	58	20	67	60	66	135	62	51
22	53	61	66	67	68	70	63	53	45	41	40	47	57	61	78	88	85	80	78	79	75	68	64	65	60	65	40	50
23	60	62	58	48	68	75	73	49	48	32	100	60	200	110	105	280	150	170	145	-70	-120	-10	30	-130	66	670	62	50
24	-280	-70	-10	80	65	70	58	50	60	80	53	50	78	60	88	118	120	93	88	80	70	28	22	50	46	550	62	50
25	-30	-95	22	20	50	40	57	40	35	60	120	240	340	260	310	260	200	150	95	-70	-90	-160	-300	66	1110	62	48	
M	-140	20.6	38.5	60.2	59.7	58.1	53.7	46.3	42.6	42.5	47.3	56.2	80.5	97.0	96.6	110.6	106.7	110.6	104.2	78.6	48.7	22.7	-5.6	-13.3	56.1	330	64	48
QM	65.8	67.7	69.6	69.0	67.1	62.5	55.7	46.0	38.6	37.0	40.4	48.1	55.2	63.5	71.3	77.2	82.8	84.0	83.1	80.7	75.6	70.0	78.1	65.7				

AUGUST

1	62	60	54	42	47	50	49	48	47	49	42	43	50	62	50	58	58	70	90	90	-15	-60	8	42	46	275	58	30		
2	54	58	60	59	58	54	49	41	33	31	30	38	43	58	56	78	90	90	92	78	67	64	57	30	57	115	55	39		
3	10	40	40	18	30	48	33	28	33	35	50	15	40	58	60	53	60	60	68	72	70	72	60	50	47	95	57	36		
4	20	29	46	61	67	65	51	40	37	47	50	60	60	90	78	65	62	75	80	95	78	62	50	55	58	140	58	35		
5	65	60	30	40	58	60	60	53	44	50	40	40	43	78	127	92	140	210	120	115	5	-30	-65	-15	59	340	58	35		
6	38	20	42	48	59	60	57	50	41	38	52	40	100	80	42	45	56	68	90	123	88	65	62	73	60	160	58	35		
7	68	68	60	65	60	60	63	52	40	42	48	40	250	420	280	300	195	130	70	60	35	40	40	40	111	470	58	32		
8	-150	-240	-60	100	20	50	57	35	43	65	110	140	210	150	300	190	190	138	140	-130	-85	-190	-150	-105	35	770	58	36		
9	-290	-310	-250	-170	30	30	70	48	50	55	65	90	140	180	245	270	190	155	125	60	-200	-180	-40	-40	17	980	58	34		
10	28	52	55	68	45	58	58	50	50	52	65	65	80	103	82	160	140	82	60	38	-230	-210	-240	34	700	58	33			
11	-460	-190	0	-45	-130	-120	-30	8	95	110	95	60	150	162	138	160	175	132	105	78	5	-20	-8	28	21	750	58	31		
12	28	32	27	60	60	53	53	43	45	42	33	38	78	75	110	108	88	78	87	93	40	12	-10	-28	54	400	58	36		
13	-95	-125	17	58	62	62	56	52	48	44	45	45	57	60	65	110	160	149	120	117	100	70	28	13	45	240	58	36		
14	60	60	61	58	20	22	48	48	32	35	55	65	75	80	88	73	75	61	89	68	-30	40	40	58	55	240	58	39		
15	61	60	60	53	55	57	44	39	36	33	47	62	75	110	110	80	80	85	72	80	80	50	-110	-130	-125	44	360	58	38	
16	-152	-130	-70	-20	28	52	53	63	50	57	105	150	120	137	143	190	190	110	110	25	25	-20	-90	-165	38	540	58	36		
17	-20	40	40	-20	-5	0	-25	30	68	60	135	190	240	260	180	120	100	100	15	-70	-270	-400	-160	23	920	57	39			
18	22	20	60	63	62	59	58	52	46	31	33	45	50	57	60	170	132	100	108	95	73	58	48	33	330	57	38			
19	32	20	-20	12	42	43	52	48	33	44	42	30	30	40	48	51	60	78	61	61	70	77	-20	-60	10	10	36	310	57	38
20	115	10	63	60	59	57	50	47	42	35	35	38	47	51	60	78														

Tromsö.

JULY 1931

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

Gr. M. T.

HOURLY MEAN VALUES.

DAY	DIURNAL SUM																															
	I	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	C				
1	0	0	-4	-14	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-78	-99	-8	3	191	194	0		
2	-39	-42	-22	0	-22	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-78	-99	-33	3	199	195	194	1	
3	-81	0	0	0	0	3	4	0	0	22	19	15	5	12	46	40	91	45	45	38	-15	-15	-16	-22	-17	8	383	200	583	0		
4	-21	0	0	0	0	0	0	0	0	6	9	13	-12	0	13	31	50	68	61	5	169	-143	-100	-47	-10	256	492	748	0	0		
5	-31	-12	0	0	0	0	0	0	-4	0	0	0	3	-5	-13	0	0	0	0	0	0	0	-43	-120	-49	-12	3	277	280	0	0	
6	-18	-27	-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-17	-23	-10	0	-1	112	147	259	0
7	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	34	296	330	0	0	
8	-96	-70	15	18	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-10	-26	-52	-8	68	254	322	0	0
9	-14	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-17	-52	-120	-8	9	203	212	0	0
10	-38	-15	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-53	-105	-8	38	221	289	0	0	
11	-69	-6	7	8	0	-8	-21	-16	6	20	23	18	8	64	67	57	55	60	70	26	2	-41	-116	-107	5	491	384	875	0	0		
12	-61	-51	-48	8	0	0	0	0	0	0	0	1	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	126	166	292	0	0	
13	19	-3	-3	-20	-20	-15	-2	12	11	5	-4	0	33	52	17	84	63	108	58	21	14	9	4	13	17	475	65	540	0	0		
14	7	-2	-10	-22	-15	-5	-9	10	4	19	35	38	-17	4	37	12	25	118	93	34	22	-3	-8	-5	15	458	96	554	0	0		
15	-9	-1	4	-14	10	3	2	-16	-1	-3	23	-4	3	24	12	30	33	51	23	-1	-10	-31	-158	-147	-8	198	398	593	0	0		
16	-99	-141	-333	-17	-5	-12	2	12	29	7	-14	-5	15	0	8	0	5	10	0	0	0	0	0	0	-82	-26	94	708	802	1	0	
17	-159	-136	-21	-7	8	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	-5	8	355	343	0	0		
18	-52	0	-6	-1	-10	3	2	-10	5	0	-17	-12	3	6	37	27	12	18	28	8	-8	-34	-58	-9	-3	151	216	367	0	0		
19	0	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	125	51	176	0	0	
20	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	148	28	176	0	0	
21	-26	4	-8	3	-8	-9	0	0	3	0	0	0	0	4	-6	18	22	20	37	34	29	-17	-50	1	-4	2	175	128	303	0	0	
22	9	-3	0	0	0	0	0	0	0	0	0	0	0	0	-7	0	6	0	0	0	0	0	0	0	0	0	15	12	27	0	0	
23	0	0	-7	-20	0	12	16	4	11	-1	63	13	144	46	33	202	68	87	64	-149	-195	-80	-36	-194	3	763	682	1445	1	0		
24	-344	-135	-78	11	-3	7	1	5	23	47	16	3	22	-4	16	40	38	10	7	1	-5	-42	-44	-14	-16	247	669	916	2	0		
25	-94	-160	-46	-49	-18	-43	-17	12	3	2	23	73	184	276	178	117	69	16	-15	-45	-160	-226	-364	-2	1373	122	2695	2	0			
M	-80	-47	-31	-9	-7	-4	-2	0	4	6	7	8	25	34	25	33	24	27	21	-4	-27	-47	-73	-79	-8	250	446	696	0	0		
MPS	81	47	32	10	9	5	3	2	1	0	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
MNS	81	47	32	10	9	5	3	2	1	0	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

AUGUST

1	0	0	-4	-14	-6	0	0	0	0	0	0	0	0	0	-15	-10	-12	-1	18	21	81	-123	-52	-17	-12	43	335	378	0	0			
2	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	36	120	0	0				
3	-50	-12	-21	-42	-29	-9	-20	-18	-7	-1	13	-27	-11	0	0	-10	-5	0	0	0	2	8	0	-29	-10	23	271	294	0	0			
4	-60	-31	-15	0	8	9	0	0	0	0	0	11	13	18	9	30	15	18	-2	-8	4	6	26	12	-1	-20	-41	161	302	0	0		
5	5	0	-31	-20	0	0	0	0	0	0	0	12	3	-2	-8	18	62	24	70	139	46	45	-61	-125	-74	1	427	414	841	0	0		
6	-22	-40	-19	-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		
7	8	1	5	0	3	8	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	210	-200	-121	40	-39	-7	4	-11	3	29	73	98	159	90	235	122	120	67	68	-199	-151	-253	-210	-164	-23	1108	1665	2773	0	0			
9	-350	-270	-311	-230	-29	-27	17	2	10	19	28	48	69	120	180	202	120	84	53	-265	-243	-100	-19	-41	972	1954	2926	2	0				
10	-32	-8	-6	8	-14	1	-10	4	10	16	23	23	29	43	17	47	90	69	10	-9	-28	-263	-270	-299	-24	390	969	1359	0	0			
11	-520	-250	-61	-105	-187	-177	-83	-38	55	74	58	18	99	102	73	82	105	61	33	9	-61	-63	-68	-81	-81	-27	779	1666	2445	1	0		
12	-32	-28	-34	0	0	0	0	-4	0	0	0	-9	-7	27	15	45	40	49	7	15	24	-56	-81	-70	-87	-27	79	158	354	0	0		
13	-155	-185	-42	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	0	0	0	-2	-39	-35	-5	-2	-8	-1	28	33	29	28	8	7	-5	0	17	1	6	11	-16	-173	-190	-184	-15	-15	226	575	803	0	0
15	-212	-190	-131	-80	-31	-5	-17	0	17	10	24	20	63	99	60	72	75	120	119	38	-44	-41	-83	-150	-224	-20	717	1191	1908	1	0		
16	-59	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		
17	-27	-40	-81	-50	-18	-15	-1	-6	15	18	36	45	21	41	107	66	32	32	25	5	-7	-14	-24	-50	-28	-4	71	158	229	0	0		
18	-23	-40	-81	-40	-20	5	1	-6	7																								

Tromsø.

Horizontal Intensity. H = 11500 + Tabular Quantities expressed in Gamma.

Gr. M. T.

OCTOBER 1931

DAY	HOURLY MEAN VALUES																							M	R	QM	QR			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23							
1	-280	-270	-80	20	80	70	40	-10	40	40	35	90	70	125	175	135	120	115	-180	-80	-20	-90	-330	-390	-23	730	51	21		
2	-580	-300	-110	-15	90	82	68	55	53	78	80	110	90	170	260	160	150	30	-150	-180	-50	-210	-280	-315	-30	950	51	21		
3	-260	-125	-170	45	0	60	75	50	70	50	45	50	70	65	50	62	80	107	25	-62	55	20	8	20	21	595	51	21		
4	-110	-360	-30	42	38	50	60	48	40	43	40	72	130	160	92	50	90	70	20	-180	-280	-200	-170	-50	-14	690	51	21		
5	-150	-55	-60	-280	-110	-50	85	60	100	190	140	115	100	80	-105	40	-300	-220	-40	-70	-230	-18	820	51	22					
6	-370	-140	-45	30	55	55	50	53	52	33	75	62	52	60	58	60	62	60	30	15	55	48	-140	-265	0	640	51	22		
7	-135	-22	20	28	42	47	50	45	28	48	43	72	62	80	42	75	82	61	58	51	48	45	45	45	40	305	50	22		
8	46	43	40	38	32	25	22	35	28	30	43	48	35	40	55	77	62	60	60	53	40	-200	-120	28	26	500	46	24		
9	38	43	23	0	30	40	45	48	43	41	39	60	80	52	95	110	64	58	50	47	45	45	42	49	190	48	25			
10	40	49	48	50	51	53	52	46	39	37	52	43	58	40	52	65	90	140	100	78	40	-15	-125	-80	40	415	49	23		
11	-8	40	58	57	55	50	48	40	32	30	38	47	55	62	62	55	58	55	55	45	-40	-150	36	295	51	32				
12	-130	22	52	55	54	52	48	40	35	38	60	40	80	130	210	270	110	-110	-80	-70	-145	-180	-320	-450	-8	970	49	25		
13	-580	-340	-60	-85	-150	-100	20	70	80	60	75	150	230	155	180	170	130	95	60	5	40	40	50	-145	7	1060	49	22		
14	-160	-10	20	38	50	58	58	48	42	40	50	53	80	52	72	120	100	85	58	-80	-135	-80	-28	30	24	485	49	24		
15	28	40	40	52	58	56	49	37	60	70	90	75	180	250	85	92	120	60	45	60	10	-20	-100	-215	47	610	49	26		
16	-110	-5	37	60	53	43	40	32	35	32	43	48	80	150	120	155	138	97	62	53	30	39	38	5	53	355	48	28		
17	-100	-105	15	57	48	53	50	45	45	60	40	65	75	70	57	55	57	59	60	40	-160	-130	15	-2	20	510	49	22		
18	-20	-70	-30	60	65	65	50	45	42	70	150	175	105	100	90	175	180	90	10	-25	35	10	-30	57	510	51	20			
19	-7	-25	-60	0	22	30	65	65	60	45	65	80	85	70	65	130	140	115	122	-25	-100	-85	-130	-280	18	610	49	22		
20	-100	22	62	60	57	55	48	37	42	42	40	55	48	60	72	62	60	73	63	60	-25	40	-100	-250	25	455	50	23		
21	-40	10	50	55	60	58	55	43	40	45	60	80	100	92	68	90	100	85	20	-90	-50	10	-25	-65	36	370	50	22		
22	-360	-50	-60	-10	30	60	50	80	60	70	90	85	65	60	110	120	100	-90	50	50	15	-75	-35	10	10	1030	49	22		
23	30	52	55	55	52	49	45	40	40	40	65	53	52	60	80	78	90	60	50	60	-200	-550	-370	-240	-10	1010	49	21		
24	-45	-10	25	-10	5	5	55	70	40	45	55	110	205	200	-50	-75	-75	-200	-180	20	-150	-90	-190	-450	-460	-300	-55	1010	48	21
25	30	50	51	52	51	50	48	44	40	36	33	40	50	57	73	63	82	90	57	49	35	-110	-50	12	39	335	49	21		
M	-115.6	-65.9	-13.5	9.2	21.1	38.4	46.3	48.5	49.0	50.4	61.1	75.4	83.8	98.6	93.0	93.8	80.7	56.7	-50	-36.8	-43.6	-74.5	-91.6	-105.8	14.7	629	49	23		
QM	48.1	49.8	52.1	54.3	53.5	52.2	49.1	44.6	40.2	37.8	38.4	41.6	46.5	52.3	56.2	58.3	59.3	57.9	65.4	48.2	49.3	47.6	46.0	46.2						

NOVEMBER

1	-12	-30	-10	20	52	50	43	45	33	25	27	42	47	33	53	65	120	80	93	60	42	-22	-180	-115	23	490	47	17	
2	20	8	35	55	55	53	48	35	38	37	37	32	38	62	120	172	148	85	72	30	28	5	-70	-130	42	475	48	18	
3	0	28	0	30	58	50	35	40	30	30	40	50	80	110	210	170	110	20	15	40	-140	-350	-230	-95	14	725	47	17	
4	-170	-240	-75	40	40	-10	-5	55	60	35	70	230	180	170	185	180	60	80	78	30	35	35	20	20	46	730	47	16	
5	20	25	32	27	-5	52	55	55	42	50	50	75	75	95	55	80	95	50	-270	-180	-140	-200	-230	-35	-90	-11	710	47	16
6	-60	-195	-70	20	-10	5	50	60	50	60	120	125	180	125	100	60	45	20	90	0	-40	-250	-310	-105	3	730	47	16	
7	-140	-30	-20	-30	40	50	70	50	40	70	60	95	180	80	45	70	50	55	50	60	-200	-280	-200	-90	14	830	47	15	
8	10	-25	-10	-10	0	20	60	25	90	155	130	100	160	145	190	105	100	-60	-110	-200	-400	-310	-210	-430	-22	1010	47	15	
9	-410	-240	-180	-60	130	90	75	50	50	42	52	80	65	165	172	130	185	-40	-300	-130	-200	-110	-110	-15	260	47	15		
10	-370	-80	15	25	50	50	75	60	60	60	55	52	68	85	120	115	80	-10	-60	-190	-20	-60	-25	9	805	47	14		
11	30	48	48	49	49	45	40	43	40	38	38	60	105	72	72	98	60	88	63	20	-10	-40	-105	-10	40	345	48	14	
12	33	45	47	48	48	47	42	40	36	39	41	48	42	42	40	50	52	57	57	50	43	45	35	44	44	315	48	9	
13	25	35	48	57	55	53	50	47	48	42	40	57	100	270	155	190	110	10	-10	-60	-130	-200	-300	-450	36	605	46	14	
14	-40	-50	-50	-30	80	60	100	40	90	65	80	70	100	95	100	110	100	10	-60	-140	-210	-280	-350	-400	15	860	47	10	
15	20	50	60	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	47	172	47	17	
16	-330	10	18	20	58	55	50	52	45	40	40	55	80	150	140	145	70	-90	-100	-210	-320	-750	-160	-130	-52	1100	46	14	
17	-150	30	60	50	52	52	55	45	60	60	60	80	150	110	110	110	110	10	-70	-10	-80	-140	-240	-350	-50	825	46	15	
18	-290	50	40	82	40	22	30	80	90	70	70	80	95	160	170	150	12												

Trømsö.

OCTOBER 1931

Horizontal Intensity. Storminess (+ N). Unit Gamma.
HOURLY MEAN VALUES.

Gr. M. T.

DAY	Horizontal Intensity. Storminess (+ N). Unit Gamma. HOURLY MEAN VALUES.																							Diurnal Sum							
	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	C			
1	-329	-321	-133	-35	26	17	-10	-56	-2	1	-4	48	24	73	119	77	60	55	-218	-135	-72	-140	-378	-437	-74	500	2270	2770	1		
2	-629	-351	-163	-70	36	29	18	9	11	39	41	68	44	118	204	102	90	-30	-208	-125	-102	-260	-328	-362	-76	809	2628	3437	2		
3	-309	-178	-223	-10	-54	7	25	4	28	11	6	8	24	13	76	4	20	47	-33	7	3	-30	-40	-27	-29	207	910	207	1117	1	
4	-159	-411	-83	-13	-16	-3	10	2	-2	4	1	30	84	108	36	-8	30	10	-38	-235	-332	-250	-218	-87	-65	315	1865	2180	1		
5	-179	-106	-113	-325	-164	-103	35	14	148	21	21	58	144	88	59	42	20	-165	-18	-355	-272	-90	-118	-277	-69	650	2295	2945	2		
6	-419	-191	-98	-25	1	2	0	7	10	-6	36	20	6	8	2	2	2	0	-28	-40	3	-2	-188	-312	-50	99	1309	1408	1		
7	-184	-73	-33	-27	-12	-6	0	-1	-14	9	4	30	16	28	-14	17	22	0	0	0	0	0	0	-10	126	364	490	0			
8	0	0	0	-8	-15	-17	-4	-10	-8	4	6	11	-12	-1	-1	0	0	0	-9	-247	-165	-17	-21	29	524	553	0	0			
9	-6	0	-25	-50	-19	-8	0	4	0	0	0	18	34	0	39	50	0	0	0	0	0	0	-4	1	145	112	257	0			
10	-7	0	0	0	0	0	0	0	0	13	1	12	-12	-4	7	30	81	44	26	-9	-102	-170	-126	-9	214	430	644	1			
11	-58	-14	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0	0	-7	-90	-198	-16	0	372	372	0	0	
12	-187	-27	0	0	0	0	0	0	0	0	21	-2	34	78	154	212	50	-169	-136	-122	-194	-227	-385	-496	-57	549	1925	2474	2		
13	-597	-380	-112	-140	-203	-152	-29	26	39	22	36	108	184	103	124	112	70	36	4	-47	-9	-7	-15	-191	-43	864	1891	2755	2		
14	-207	-59	-32	-17	-3	5	6	9	4	1	2	11	11	34	0	16	62	40	26	2	-132	-184	-107	-73	-16	-25	224	830	1054	1	
15	-19	-9	-12	-3	5	6	0	-7	19	32	51	33	134	198	29	34	60	1	-11	8	-39	-167	-145	-261	-3	610	673	1293	1		
16	-157	-54	-15	5	0	-7	-5	-8	0	9	7	35	98	64	97	78	38	6	1	-19	-8	-7	-41	-5	437	321	758	0			
17	-147	-154	-37	2	-5	-1	-1	4	22	1	25	29	18	0	0	0	0	-15	-210	-177	-20	-48	-30	102	823	925	1				
18	-67	-120	-85	0	2	5	-3	0	0	30	107	129	53	44	32	115	101	34	-42	-74	-12	-35	-76	6	652	514	1166	1			
19	-54	-74	-132	-55	-31	-22	16	16	4	27	41	43	24	8	9	72	80	56	66	-149	-132	-175	-326	-32	462	1227	1689	1			
20	-148	-28	7	0	0	0	-7	2	3	0	13	2	8	15	0	0	14	27	8	-74	-145	-296	-25	99	705	804	1				
21	-87	-40	-5	-5	0	0	5	0	-1	7	21	48	54	40	12	82	40	26	-36	-142	-99	-37	-70	-111	-15	285	633	918	0		
22	-407	-379	-112	-65	-23	8	1	36	19	32	41	53	39	13	4	52	60	41	-146	2	-1	-32	-120	-81	-40	400	1367	1768	2		
23	-18	0	0	0	0	0	0	0	0	27	13	5	28	-1	19	32	5	-2	11	-248	-597	-416	-286	-60	140	1588	1708	2			
24	-93	-60	-27	-63	-48	-46	6	26	0	42	47	10	15	13	0	0	0	0	0	-47	-31	-14	-12	-12	-12	159	436	595	0		
25	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	318	398	0	0			
26	-38	-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	
27	-158	-230	-95	-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	
28	-18	-20	-142	-108	-43	19	-1	16	2	14	42	25	53	113	16	71	127	-95	-352	-179	-168	-157	-36	-31	-35	499	1349	1848	1		
29	-30	-5	0	0	0	-14	-1	-12	15	72	167	160	92	127	-127	-13	-151	-151	-289	-448	-357	-255	-474	-69	777	2424	3201	2			
30	-288	-245	-312	-353	-383	-151	-129	21	-15	22	14	30	3	138	94	41	-248	-155	-402	-579	-178	-167	-196	-61	-103	414	2877	3291	2		
31	-58	-30	-52	-15	-63	-1	-19	31	20	22	27	40	53	43	44	-4	17	5	-2	-47	-68	-107	-96	-71	-13	302	613	915	0		
M	-164	-116	-66	-45	-32	-14	-3	4	9	13	23	34	37	46	37	36	21	-1	-60	-85	-93	-122	-138	-152	-34.6	342	1173	1515	1.0		
MPS	0	0	0	0	2	3	4	7	10	13	23	34	41	51	42	44	37	36	21	-1	-60	-85	-93	-122	-138	-152					
MNS	164	116	66	45	34	2	17	7	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

NOVEMBER																														
1	-57	-77	-59	-30	1	0	-5	0	-9	-15	-11	2	4	-14	2	16	65	27	42	11	-6	-69	-225	-159	-24	165	736	901	1	
2	-26	-41	-17	0	0	-2	-10	-2	0	-8	-5	15	69	118	93	52	52	21	-19	-20	-42	-115	-174	-21	-348	481	829	1		
3	-45	-19	-49	-20	7	0	-13	-5	-12	-10	2	10	37	63	159	116	55	-33	-36	-9	-188	-397	-275	-139	-33	449	1250	1699	1	
4	-215	-287	-124	-10	-11	-60	-53	10	18	-5	32	190	137	123	154	126	5	27	-19	-13	-12	-25	-24	-24	-829	858	1687	1		
5	-25	-22	-17	-23	-56	2	7	-3	8	10	37	35	52	8	29	41	-5	-323	-231	-189	-148	-277	-80	-134	-229	229	229	1622	1	
6	-105	-242	-119	-30	-61	-45	2	15	8	20	82	85	137	78	49	6	-10	-33	36	-49	-88	-297	-355	-149	-44	521	1583	2104	1	
7	-185	-77	-69	-80	-11	0	22	2	-2	30	42	55	137	33	6	-16	5	29	1	-53	-247	-305	-134	-33	382	1174	1556	2		
8	-35	-72	-59	-60	-51	-30	12	-20	48	115	92	60	117	98	139	51	45	-113	-151	-289	-448	-357	-255	-474	-69	777	2424	3201	2	
9	-455	-257	-229	-110	97	40	27	5	8	2	12	10	47	48	119	76	35	7	14	-148	-247	-405	-394	-73	73	530	2275	2605	2	
10	-415	-127	-34	-25	-1	0	27	15	18	20	22	15	9	21	34	66	20	27	-61	-109	-238	-87	-69	-38	334	1251	1555	2		
11	-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	0	0
12	-10	0	0	0	0																									

Tromsø.

Vertical Intensity. V = 50100 + Tabular Quantities expressed in Gamma.

Gr. M. T.

HOURLY MEAN VALUES

JANUARY 1931

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	QM	QR	
1	107	103	140	111	107	109	106	100	99	103	103	109	118	110	95	92	115	125	110	105	55	80	-30	20	94	315	104	16
2	110	108	90	60	78	83	92	100	104	107	102	103	108	120	117	110	105	107	100	65	70	103	98	100	101	101	101	13
3	112	103	103	102	100	98	99	97	96	97	98	99	100	105	106	105	105	107	105	105	111	112	118	104	13	101	101	11
4	107	105	105	108	100	100	100	100	100	106	107	107	105	105	105	105	105	105	103	102	108	105	98	92	93	40	103	7
5	87	92	102	104	105	102	99	99	98	98	98	99	100	103	105	104	103	103	105	107	107	100	102	101	35	102	9	
6	80	92	83	93	92	90	90	93	95	96	97	99	104	105	108	110	105	102	100	100	98	95	93	97	27	99	20	
7	93	95	95	96	97	95	94	92	92	91	91	95	98	100	100	101	102	104	103	101	100	88	85	96	27	97	13	
8	95	95	93	92	95	97	97	97	95	95	95	97	98	97	95	95	95	96	97	98	97	96	94	95	7	96	6	
9	94	85	25	-18	-5	30	65	72	82	90	93	95	110	132	120	123	113	93	80	65	50	50	120	75	77	500	99	11
10	-18	60	108	127	65	50	90	88	97	95	108	110	125	122	108	127	130	120	90	60	-20	10	92	100	85	305	99	10
11	98	105	108	103	99	98	95	98	100	100	102	105	105	103	102	103	115	118	90	92	50	50	50	88	97	185	101	13
12	92	80	100	103	102	98	95	95	100	102	104	105	107	110	112	120	123	130	132	140	138	120	123	60	108	145	102	17
13	75	95	97	98	97	95	92	93	98	103	108	105	105	107	112	112	120	122	118	117	110	110	60	100	102	100	104	20
14	110	108	103	100	99	97	97	97	98	99	102	105	107	103	100	98	98	100	100	101	102	90	101	35	101	13		
15	73	65	60	80	87	92	90	90	93	98	100	106	120	122	120	137	110	100	103	85	42	70	90	88	95	120	100	8
16	145	140	20	48	52	73	88	100	110	128	150	140	150	115	110	130	120	20	-10	15	70	-15	30	-15	80	390	100	8
17	15	20	65	50	50	70	80	105	120	128	140	125	110	140	80	120	110	-20	70	90	95	70	60	85	300	100	8	
18	10	45	62	80	87	72	80	100	100	100	100	102	100	110	110	125	128	70	60	20	0	20	55	30	325	100	8	
19	40	80	103	102	95	93	93	100	117	130	148	135	135	120	125	118	105	107	117	18	52	80	80	100	190	100	8	
20	12	50	90	95	95	97	100	100	100	102	100	107	115	135	100	60	50	122	100	107	55	-12	87	250	100	12		
21	82	88	110	100	102	97	102	98	98	102	102	105	105	108	105	105	107	130	120	100	98	60	60	73	62	98	110	11
22	70	75	82	88	93	83	95	93	100	110	112	105	110	120	110	102	99	99	100	108	100	88	80	97	55	100	100	8
23	50	50	63	77	90	97	97	93	97	101	101	102	110	110	100	125	128	120	107	98	90	55	70	94	120	100	100	8
24	87	88	90	92	92	90	90	90	90	90	92	92	92	92	92	95	95	100	98	95	93	95	92	94	13	94	13	
25	91	90	90	89	89	90	90	90	90	90	92	92	92	92	92	95	95	108	80	65	100	150	170	290	105	410	93	10
M	82.2	88.5	87.0	84.6	86.8	88.3	92.7	95.9	98.4	101.5	105.3	105.9	110.8	109.2	110.9	111.5	108.3	104.9	90.7	92.8	83.8	86.2	84.6	83.8	93.5	169	99	11
QM	96.7	98.0	98.5	98.5	97.6	96.7	96.0	96.2	97.5	98.5	99.5	100.5	100.7	102.1	103.2	103.3	102.6	101.9	101.3	100.9	100.6	100.0	99.4	98.3	96.9			

FEBRUARY

1	15	62	78	80	83	80	80	92	87	80	97	98	100	98	96	97	97	97	97	90	30	130	230	110	93	380	96	9		
2	290	150	20	75	90	75	95	113	100	103	102	108	120	112	123	140	137	118	100	103	75	52	92	109	480	101	11			
3	102	90	40	10	58	-12	70	80	85	87	92	97	100	102	118	140	115	130	130	115	105	102	100	100	185	98	12			
4	100	99	100	98	97	89	83	80	88	102	108	110	110	108	112	112	120	120	125	100	72	70	43	80	98	190	98	15		
5	100	70	5	30	67	60	92	92	93	95	97	98	99	100	99	98	98	98	100	20	75	70	62	175	97	8				
6	82	97	97	93	92	90	88	88	92	92	91	91	93	95	95	95	95	97	103	78	95	103	107	105	102	280	98	8		
7	82	92	80	80	70	80	83	93	95	102	110	107	108	105	108	98	97	100	102	102	105	105	105	105	190	98	10			
8	70	40	38	72	81	85	85	85	95	95	93	93	95	95	95	95	95	95	95	100	137	130	130	105	105	135	99	15		
9	68	82	63	68	72	93	88	81	93	92	90	90	100	108	120	100	112	115	120	100	72	72	83	83	88	95	95	12		
10	85	70	77	83	82	80	80	85	90	91	90	95	95	97	98	98	98	100	102	103	110	100	95	91	92	93	93	95	93	25
11	95	94	92	80	90	88	85	88	90	90	90	90	92	95	95	95	95	95	100	113	112	100	48	80	92	110	115	94	15	
12	95	97	97	94	92	91	90	90	91	92	92	94	98	100	98	98	98	98	100	75	110	110	95	90	87	95	95	95	10	
13	40	5	55	60	42	50	70	72	60	60	67	72	83	112	118	132	100	115	47	90	270	560	30	50	87	87	96	9		
14	90	115	40	25	45	55	70	78	95	105	120	135	120	160	170	120	120	120	100	70	20	60	300	-60	88	645	96	9		
15	-45	30	65	60	60	70	72	78	80	145	120	130	135	100	100	70	70	20	60	100	40	40	40	79	365	97	9			
16	175	5	42	60	80	93	102	100	98	102	108	105	105	112	112	112	112	112	105	101	100	98	97	325	97	14				
17	97	98	99	97	97	95	92	93	98	108	112	110	113	120	112	112	112	112	108	99	97	98	98	28	98	155	98	13		
18	60	82	91	92	93	93	95	95	97	100	103	100	98	99	102	103	103	103	103	103	103	103	103	103	103	102	97	11		
19	60	90	92	92	95	9																								

Tromsö.

Vertical Intensity. Storminess (+ Down). Unit Gamma.
HOURLY MEAN VALUES.

Gr. M. T.

JANUARY 1931

DAY	Vertical Intensity. Storminess (+ Down). Unit Gamma. HOURLY MEAN VALUES.																							DIURNAL SUM					
	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	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-10	63	291	354		
2	15	12	-7	-38	-20	-15	-8	0	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	91	153	244		
3	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	0	66		
4	7	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	22	50		
5	-13	-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	26	26		
6	-10	-6	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	28	28		
7	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	23	23		
8	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		
9	-11	-72	-116	-102	-67	-31	-24	-15	-7	-5	-4	9	29	15	19	10	-9	-22	-36	-50	-48	24	-20	-22	106	639	745		
10	-113	-36	11	29	-32	-49	-6	-8	0	-2	10	11	24	19	3	23	27	18	-12	-41	-120	-88	-6	2	-14	177	513	690	
11	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		
12	-7	-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	37	127	164		
13	-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	201	66	267		
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	37	82	119		
15	-24	-33	-39	-20	-12	-5	-6	-7	-6	-2	-1	4	17	18	17	35	9	0	-15	-58	-30	-9	-10	-7	103	277	380		
16	48	42	-79	-52	-47	-24	-8	3	11	28	49	38	47	11	7	28	19	-80	-110	-85	-30	-115	-69	-113	-20	331	812	143	
17	-82	-78	-34	-50	-49	-27	-16	8	21	22	39	23	47	6	37	-22	19	10	-120	-30	-10	-50	-29	-38	(48)	590	822	(642) (690)	
18	-87	-53	-37	-20	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	-100	-80	-44	-58	233	491	0	10	0		
19	-37	-18	4	2	-4	-4	-3	3	18	30	47	33	32	16	22	16	4	7	17	7	-82	-48	-19	-18	1	258	233	458	
20	-85	-46	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-40	-50	22	0	7	-44	-110	-13	71	387	458	
21	-15	-10	11	0	3	0	4	0	0	0	0	0	0	0	0	0	0	4	29	20	0	-2	-40	-26	-36	-2	71	129	200
22	-27	-23	-17	-12	-6	-14	-1	-4	1	10	11	5	2	6	17	8	0	0	0	0	0	0	-11	-18	-3	68	133	201	
23	-47	-48	-36	-23	-9	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	-22	122	243	365	
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		
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	-19	-34	3	54	75	196	12	339	53	392
M	-15	-10	-12	-14	-11	-8	-3	0	1	3	6	5	9	6	8	9	6	4	-10	-8	-16	-13	-14	-13	-3.8	111	201	313	
MPS	7	4	1	1	0	0	0	1	2	4	6	5	8	6	8	10	8	9	5	4	2	5	5	10					
MNS	22	13	13	15	11	8	4	2	1	0	0	0	0	0	0	0	0	1	5	15	12	18	19	23					

FEBRUARY

1	-81	-35	-18	-14	-10	-2	-11	1	-5	-5	0	0	0	0	0	0	0	0	-8	-70	31	132	13	-3	177	259	436		
2	194	53	-76	-19	-3	-17	0	16	-8	-7	-3	0	8	21	14	25	38	19	10	3	-3	-46	-5	-11	443	190	633		
3	6	-7	-56	-64	-55	-104	-89	-41	-12	-8	-7	0	0	0	0	16	38	12	27	27	12	3	0	-14	141	466	607		
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	37	186	223			
5	4	-27	-91	-64	-26	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-14	4	349	353			
6	-14	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		
7	-14	-5	-6	-14	-23	-12	-9	0	0	0	0	0	0	0	0	0	0	0	4	18	13	5	-19	10	-27	0	50	60	110
8	-26	-55	-55	-18	-4	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	72	338	410			
9	-28	-13	-29	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-14	0	323	323			
10	-11	-25	-32	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	23	78	101			
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	32	79	111			
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	31	46	77			
13	-56	-92	-41	-34	-51	-42	-21	-19	-32	-35	-27	-23	-15	15	20	34	27	22	10	-24	10	10	4	-8	101	72	140		
14	-6	-18	-56	-69	-48	-37	-21	-13	-3	-12	-24	-40	24	63	72	22	2	14	16	21	7	0	-27	-26	-14	101	141	242	
15	-141	-67	-31	-34	-33	-22	-19	7	38	52	26	35	32	38	2	-28	-29	-79	-40	0	-59	-56	3	-17	235	640	875		
16	79	-92	-54	-34	-13	1	11	8	5	8	13	9	15	24	12	12	10	0	0	0	0	0	0	1	218	193	411		
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	43	43	43			
18	-36	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	14	70	84			
19	-30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	47	60	107			
20	-53	-74	-65	-23	-17	8	9	10	12	6	5	13	5	12	31	20	-50	-195	-161	-50	31	162	143	55	-68	374	2001	2581	
21	-116	-26	-55	-46	-21	5	-4	1	10	22	17	18	32	28	20	15	70	40	21	20	11	-17	-107	-69	-5	337	444	781	
22	-36	-4	-15	-9	6	7	4	8	23	12	23	42	41	45	20	12	-26	100	-99	1	-15	-17	-47	0	302	368	670		
23	-26	-7	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-14	0	76	70	146		
M	-17	-20	-24	-19	-13	-11	-11	-4	0	2	3																		

Tromsø.

Vertical Intensity. V = 50100 + Tabular Quantities expressed in Gamma.

Gr. M. T.

HOURLY MEAN VALUES

APRIL 1931

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	QM	QR	
1	99	100	100	99	97	96	97	97	97	97	95	92	102	120	132	135	75	70	150	80	78	78	120	100	300	99	7	
2	110	60	55	102	97	97	95	98	98	99	100	107	103	103	112	110	105	102	90	80	80	70	80	210	(99)	12		
3	90	92	93	96	97	97	95	98	98	99	100	102	102	102	118	58	50	78	70	130	260	180	85	104	395	97	12	
4	100	115	113	110	107	107	102	102	107	105	102	102	102	102	128	108	110	47	68	90	130	160	145	108	230	101	15	
5	10	5	20	32	90	112	115	110	103	108	112	95	95	97	100	100	100	100	98	97	95	95	95	87	155	98	5	
6	95	97	99	99	100	100	100	100	105	108	102	98	107	125	132	130	113	105	101	97	93	90	88	90	103	55	99	16
7	83	93	97	100	100	98	98	97	97	96	96	96	90	102	103	95	93	95	95	80	40	40	90	88	97	11		
8	32	43	75	88	90	92	92	95	98	100	102	102	107	98	102	117	102	100	95	78	78	20	90	170	97	12		
9	30	40	45	70	82	88	90	90	97	100	102	115	107	115	120	125	113	107	108	110	22	50	90	130	97	14		
10	98	120	170	90	-60	0	72	92	100	100	110	103	122	170	140	130	120	110	73	50	70	110	230	60	470	99	7	
11	40	82	100	102	98	96	98	103	132	130	122	120	140	138	135	143	125	100	62	82	90	92	105	175	99	7		
12	98	100	101	100	100	101	102	101	100	98	99	102	107	105	105	102	99	98	94	93	92	93	99	13	99	15		
13	97	98	100	99	98	95	97	98	98	95	97	100	100	100	102	102	96	95	95	95	97	98	23	97	7			
14	98	99	100	100	100	100	100	97	100	100	95	91	90	95	100	112	127	120	118	75	88	88	30	50	95	99	7	
15	68	75	93	98	98	92	97	99	96	93	98	93	97	110	142	127	117	110	92	130	100	88	72	99	140	98	7	
16	70	70	62	82	90	92	96	97	100	100	97	98	92	95	97	97	93	90	89	89	90	90	90	80	47	95	11	
17	90	90	71	85	80	83	90	93	97	97	105	118	128	112	112	102	100	92	90	88	80	68	94	115	96	12		
18	88	78	-20	-43	25	70	93	95	100	100	97	117	142	135	130	127	120	110	110	82	45	40	83	93	82	238	99	7
19	93	91	88	88	95	97	97	98	100	99	98	98	108	93	82	102	90	80	60	180	250	210	205	290	121	435	98	7
20	15	70	12	30	40	87	110	120	140	140	132	130	130	152	123	155	155	108	97	78	90	80	92	102	94	360	99	7
21	100	100	101	103	103	102	101	101	100	105	101	98	95	97	99	100	100	100	99	88	88	90	98	99	60	100	8	
22	100	98	70	62	58	70	80	93	103	108	103	105	107	103	105	110	110	113	105	112	118	120	120	100	87	100	98	101
23	50	10	52	80	90	100	103	107	105	105	98	97	130	135	117	133	128	125	112	102	98	83	60	97	215	101	11	
24	0	15	42	60	80	92	98	103	107	105	105	102	97	112	132	130	123	120	113	100	99	90	97	91	170	102	11	
25	50	80	92	92	98	97	95	100	103	108	112	100	108	110	118	120	115	105	102	112	98	101	150	100	10			
26	103	103	105	102	98	98	93	97	101	118	105	105	103	110	112	110	107	100	100	100	96	98	78	20	98	122	101	10
27	20	70	95	100	100	100	99	99	100	101	100	107	103	103	108	110	115	110	100	95	95	102	98	108	103	13		
28	105	107	108	107	104	103	103	101	100	100	103	105	105	105	112	122	108	100	107	105	105	105	104	103	(15)	17		
29	98	80	80	102	105	101	100	98	98	102	112	104	105	110	113	112	111	108	102	90	95	97	102	55	103	17		
M	73,4	78,7	82,6	84,2	81,6	88,2	94,9	98,6	101,9	104,0	103,8	102,2	103,8	111,2	113,7	118,0	113,7	104,4	97,6	100,1	100,1	102,1	97,4	88,7	97,8	166	99	11
QM	97,6	98,6	100,3	100,3	99,1	98,3	98,1	98,3	99,5	99,7	99,8	99,8	100,7	101,8	103,2	103,6	102,8	101,5	99,6	97,7	96,1	95,4	95,2	96,5				

MAY

1	90	80	90	105	103	102	100	100	99	99	98	118	112	110	109	109	104	100	100	102	101	101	102	102	30	103	12	
2	104	90	48	73	83	88	90	90	100	105	103	97	108	122	110	112	115	110	108	108	105	102	101	102	102	98	100	13
3	103	106	107	108	105	100	93	90	88	92	95	102	103	110	113	117	117	118	118	100	110	112	118	106	68	104	8	
4	90	65	93	88	85	85	90	90	92	97	102	108	108	113	128	125	122	118	118	118	80	68	83	100	130	103	103	7
5	90	93	98	98	96	95	97	97	99	99	100	105	125	165	167	162	160	120	93	102	52	52	112	155	101	12		
6	67	90	80	68	78	98	100	102	112	103	140	190	157	120	152	138	133	130	120	122	118	113	110	110	115	170	103	8
7	108	100	120	310	45	-60	0	70	90	102	108	170	135	132	132	135	110	140	108	110	140	105	128	102	108	103	7	
8	93	100	100	102	108	110	110	112	115	117	110	120	122	122	120	120	120	118	108	102	104	103	105	105	105	106	9	
9	107	109	110	112	109	108	103	102	100	100	98	103	101	105	107	110	104	103	103	103	103	103	101	88	20	104	14	
10	92	90	97	102	102	103	105	102	100	99	99	100	100	100	102	105	108	105	105	105	105	105	105	105	105	105	9	
11	105	107	108	105	103	100	98	95	87	85	88	90	102	100	130	148	125	90	80	180	180	180	180	180	190	130	103	10
12	90	120	110	70	60	62	90	90	103	108	110	140	115	115	118	120	112	118	100	110	110	110	110	110	110	99	125	103
13	32	70	92	90	83	95	95	95	105	100	100	100	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	7
14	70	40	-55	-20	45	93	102	90	87	93	100	100	100	100	100	100	100	100	105	105	105	105	105	105	105	105	105	7
15	245	300	90	40	-80	5	80	103	110	123	108	100	120	128														

Tromsö.

APRIL 1931

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

HOURLY MEAN VALUES.

Gr. M. T.

DAY	Vertical Intensity. Storminess (+ Down). Unit Gamma.																							M	Diurnal Sum					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		P8	NS	AS			
1	0	0	0	0	0	0	0	0	0	0	-5	-8	1	18	30	34	-25	-28	54	-15	-17	-17	24	2	161	115	276			
2	13	-38	-25	2	0	0	0	0	0	0	0	-2	5	27	24	-14	-45	-50	-20	-26	35	165	85	-13	7	312	152	484		
3	0	-9	0	6	0	0	0	0	0	0	0	-2	5	27	24	-14	-45	-50	-20	-26	35	165	85	-13	7	259	98	355		
4	0	-13	7	0	0	0	0	0	0	0	-12	14	25	26	7	10	-51	-28	-5	35	65	65	49	7	259	98	355			
5	-87	-83	-80	-68	-9	13	17	12	4	9	15	0	0	0	0	0	0	0	0	0	0	0	0	-11	70	337	407			
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	112	0	112		
7	-9	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	141	161	
8	-65	-52	-18	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169	169	169	
9	-67	-58	-55	-28	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	253	337	
10	1	22	70	-10	-159	-99	-26	-6	1	11	3	22	69	38	28	19	10	-25	-46	-25	15	135	135	-36	7	158	335	493		
11	757	-16	0	0	0	0	0	0	5	33	31	23	20	40	37	33	41	24	0	0	4	-33	-13	-5	-4	6	291	128	419	
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	
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	22	0	22	
14	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	69	171	240	
15	-29	-23	-7	0	0	-6	-6	0	0	-4	0	0	-7	-4	8	40	26	17	12	-4	35	13	-7	-24	1	151	121	272		
16	-27	-28	-38	-18	-9	-7	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	132	132		
17	0	-16	-10	-15	-13	-9	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	-2	73	122	195		
18	-9	-20	-43	-120	-142	-74	-28	-5	-4	-1	-1	-3	17	41	33	28	26	20	10	-14	-50	-55	-12	-3	-17	179	582	761		
19	-4	-7	-12	-9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	10	120	
20	-82	-28	-115	-88	-69	-59	-11	12	21	41	41	22	32	29	28	50	54	23	10	-17	-5	110	10	0	-5	566	129	795		
21	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	364	474	838	
22	0	0	-30	-41	-44	-31	-21	-7	3	5	2	4	5	2	3	9	11	14	11	3	-2	2	4	7	2	-8	-1	5	26	31
23	-50	-91	-50	-23	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	183	299
24	-100	-86	-60	-43	-22	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170	275	445
25	-50	-21	-10	-8	0	0	0	0	0	0	0	7	11	-2	5	3	13	16	12	-21	15	41	-2	16	0	0	0	139	114	253
26	0	0	-1	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	-80	-31	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	102	152	
28	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	120	132		
29	0	0	-21	-22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	31
30	0	0	-21	-22	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	5
M	-24	-20	-18	-16	-18	-10	-3	0	2	4	4	2	3	9	11	14	11	3	-2	2	4	7	2	-8	-1	1.5	137	171	308	
MPS	0	1	3	0	0	0	1	1	3	4	4	3	1	5	10	11	14	13	2	6	4	8	10	12	14	9				
MNS	24	21	20	16	17	11	4	1	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MAY

1	-13	-24	-15	0	0	0	0	0	0	0	0	0	0	18	7	0	0	0	0	0	0	0	0	0	0	0	-1	25	52	77			
2	0	-14	-57	-32	-21	-16	-23	-12	-1	-5	-3	-2	-3	8	10	6	8	0	0	0	0	0	0	0	0	-6	39	176	215				
3	0	0	0	0	0	0	0	-10	-12	-13	-8	-5	-2	0	7	9	8	10	2	14	-3	7	9	18	15	2	89	51	150				
4	-13	-19	-12	-17	-19	-19	-13	-12	-9	-3	-2	-2	-1	8	7	11	24	20	15	12	8	15	15	15	-5	157	215	350	523				
5	-13	-7	0	0	0	0	0	0	0	0	0	5	25	64	48	61	62	55	34	16	5	17	-10	-50	-51	11	392	131	523				
6	-36	-14	-25	-37	-22	0	0	0	0	0	0	0	0	11	3	40	90	56	18	48	33	26	24	16	19	15	10	8	7	12	424	134	558
7	5	-4	15	205	-59	-164	-103	-32	-1	-1	-1	-1	-1	34	8	70	34	30	28	30	3	34	4	10	7	374	914	914					
8	-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	4	104	10	114			
9	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	6	6	6	6			
10	-10	-12	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	27	27	27			
11	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			
12	-13	-16	-24	-42	-13	-15	-12	-2	-1	-2	-1	-2	-1	26	43	47	44	20	1	-28	-18	-15	-6	0	0	0	6	249	115	364			
13	-71	16	5	-35	-24	-42	-13	-12	-2	-1	-1	-1	-1	17	8	13	23	4	8	7	5	-5	-64	-60	-4	179	268	447					
14	-33	-64	-160	-125	-59	-11	-1	-12	-14	-7	-0	0	0	0	17	15	15	12	-31	-23	-21	-30	-13	-15	-18	156	248	512					
15	142	196	-15	-63	-184	-99	-23	-1	9	23	9	10	19	-14	36	30	8	-3	8	113	-68	-43	-50	-33	-9	490	710	1200					
16	-73	-34	-45	-62	-59	-22	-8	-9	-3	0	0	0																					

Tromsö.

Vertical Intensity. V = 50100 + Tabular Quantities expressed in Gamma.

Gr. M. T.

JULY 1931

DAY	HOURLY MEAN VALUES																							M	R	QM	QR	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
1	105	107	107	104	101	101	102	102	100	99	98	100	93	100	105	113	108	107	103	100	88	40	30	97	115	102	10	
2	58	40	60	73	90	97	90	85	88	88	85	92	120	130	150	122	113	105	100	130	190	55	30	95	355	102	4	
3	20	57	60	77	93	90	88	93	98	100	103	90	118	122	140	120	120	120	120	80	52	68	95	97	93	175	101	9
4	98	95	103	108	108	103	103	88	90	95	100	83	90	93	95	100	122	107	90	95	-40	0	35	62	85	225	103	12
5	73	78	82	105	103	110	110	110	107	112	105	100	103	103	103	103	103	101	95	70	25	40	94	102	105	12		
6	78	87	88	90	98	100	108	108	106	104	100	100	120	120	138	117	100	108	90	83	93	88	92	102	101	90	100	21
7	107	109	105	97	93	95	90	92	92	98	107	108	100	95	95	95	92	92	90	95	92	140	58	60	96	175	99	16
8	73	45	75	95	100	100	105	105	108	103	101	108	110	100	95	95	97	98	95	93	90	70	95	82	100	20	100	20
9	78	90	97	94	98	100	100	90	86	88	93	100	103	103	102	105	103	102	95	88	90	60	94	82	97	19	95	20
10	58	80	85	90	95	100	102	100	98	93	93	97	97	98	100	100	103	103	90	70	42	92	95	95	99	20	95	20
11	25	60	90	95	97	100	110	95	82	100	102	120	108	115	132	150	142	128	80	70	30	40	80	110	94	155	101	9
12	85	82	52	80	90	100	102	103	105	102	98	100	95	95	102	103	102	92	100	99	95	100	110	103	96	75	102	7
13	102	102	100	88	70	65	60	85	107	115	120	108	142	125	115	120	148	140	120	112	103	108	100	108	100	105	100	102
14	10	107	103	95	87	85	98	98	97	120	120	200	140	88	103	130	122	80	100	85	102	102	100	105	110	175	102	7
15	100	100	102	88	100	110	105	112	148	160	95	102	100	120	137	122	152	127	112	97	90	80	40	110	175	102	7	
16	38	20	20	20	72	75	87	105	120	110	98	98	110	103	105	110	107	115	115	112	107	97	83	70	88	225	102	9
17	28	-22	30	68	90	92	100	102	98	100	92	90	95	98	100	112	120	108	105	95	80	87	-	150	102	30		
18	53	75	92	98	98	95	100	110	108	117	105	95	90	102	117	123	125	122	118	102	90	80	100	80	100	18	82	100
19	92	93	97	98	98	99	100	95	97	98	98	93	100	102	118	130	110	107	104	103	100	100	80	97	80	107	75	102
20	100	102	102	103	106	109	108	107	103	97	90	100	110	125	130	133	120	112	117	103	97	80	107	75	102	19		
M	84.3	67.0	68.9	79.8	87.9	93.2	95.6	98.8	102.4	105.0	105.5	110.3	111.2	104.8	115.3	112.5	108.0	106.4	103.3	109.5	97.9	97.5	90.7	103.9	98.3	231	102	12
QM	99.7	100.1	100.4	99.8	100.1	101.1	101.1	103.1	102.6	101.6	99.9	99.4	100.4	101.8	102.4	104.0	104.6	105.5	105.8	104.3	102.4	101.2	99.9	99.3	99.8			

AUGUST

1	102	102	107	100	90	83	88	88	89	90	97	95	97	110	120	98	100	100	100	102	92	32	40	60	91	130	97	14		
2	80	97	100	102	102	100	100	100	100	103	105	105	105	105	108	110	110	110	100	90	100	80	100	100	103	101	8			
3	35	50	20	-18	0	32	60	90	85	85	100	125	92	93	90	100	103	102	100	98	98	90	97	90	96	102	15			
4	80	77	88	90	95	102	102	105	130	90	100	102	108	102	108	102	128	107	98	98	103	90	83	87	90	102	102			
5	95	97	95	73	80	80	95	98	100	102	105	105	105	98	90	112	148	103	80	105	80	115	130	130	80	99	135	102	15	
6	82	88	90	78	82	85	91	92	97	100	102	110	92	135	125	108	98	95	90	105	108	132	97	88	82	104	152	102	19	
7	100	98	80	85	88	70	82	82	92	95	105	120	150	158	140	30	90	95	60	100	112	120	125	165	104	290	102	12		
8	380	250	0	50	82	80	100	80	110	128	142	180	190	170	138	120	140	140	122	250	170	300	140	220	152	570	102	12		
9	370	130	310	-10	-35	22	82	82	120	120	107	115	130	175	125	105	40	110	130	128	120	90	70	47	80	112	750	102	12	
10	90	95	92	103	105	110	110	117	117	115	112	128	140	138	128	130	132	120	105	90	100	160	170	170	117	325	102	12		
11	130	-70	0	0	5	0	12	33	85	120	130	150	150	128	142	140	132	127	120	100	120	102	92	85	84	355	102	12		
12	92	88	80	88	97	97	100	102	105	105	105	110	108	107	102	102	107	102	108	108	108	108	108	108	115	107	13			
13	70	18	32	70	88	95	90	92	97	100	102	103	102	98	88	125	128	128	115	100	108	112	82	88	95	193	101	15		
14	100	102	102	110	100	80	80	90	90	100	108	120	130	135	130	125	117	120	108	107	88	40	40	62	96	190	102	20		
15	95	98	100	100	90	92	93	94	95	95	100	110	117	137	152	140	117	120	117	108	103	105	35	120	180	112	435	100	15	
16	180	145	50	50	52	73	87	92	85	148	158	130	142	150	110	80	138	122	180	220	40	111	330	101	15	150	100	155	100	15
17	30	55	75	95	102	100	110	112	110	107	105	112	112	142	140	140	138	123	123	112	108	98	82	82	85	103	155	100	15	
18	50	80	97	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	15	
19	160	130	10	-28	-10	33	67	82	90	92	115	132	142	130	108	98	110	110	110	110	100	100	90	30	240	180	114	435	100	15
20	195	60	40	70	62	65	110	150	118	122	125	150	130	110	100	115	110	115	115	115	115	115	115	115	115	115	115	115	115	115
21	200	60	68	72	70	68	88	90	97	120	142	95	102	75	102</															

Tromsö.

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

Gr. M. T.

JULY 1931

DAY	HOURLY MEAN VALUES.																							DIURNAL SUM					
	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	-12	-60	-71	-6	0	153	153		
2	-44	-63	-43	-29	-11	-4	-12	-17	-13	-12	-15	-8	-19	-28	-47	-19	-10	-1	-3	-5	-29	-89	-45	-71	-6	242	395	637	
3	-82	-46	-23	-25	-28	-11	-14	-7	-17	-12	-15	-3	-11	-16	-19	-37	-17	16	-17	-22	-48	-10	0	0	-8	125	327	452	
4	0	-5	0	0	0	0	0	-14	-11	-5	0	-17	-11	-9	-10	0	14	0	-15	-7	-141	-101	-65	-39	-18	14	450	464	
5	-29	-25	-21	-21	-0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	-31	-75	-60	-10	6	256	262		
6	-17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	81	171	
7	0	0	0	0	-3	0	-8	-8	-9	-2	0	7	8	0	0	0	0	0	0	-5	-3	-8	40	-42	-41	-3	55	129	184
8	-29	-55	-22	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	4	131	135	
10	-35	-15	-8	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	59		
11	-77	-40	-8	0	0	0	8	-7	-19	0	2	20	7	13	29	47	39	24	-23	-32	-71	-61	-20	9	-7	198	358	556	
12	-17	-21	-51	-22	-11	0	0	0	0	0	0	0	-6	0	0	0	-5	0	11	8	0	-5	19	142	161				
13	0	0	-14	-31	-36	-42	-17	6	15	20	8	41	23	12	17	45	36	17	10	2	7	0	7	5	266	140	406		
15	0	0	-13	0	8	0	10	47	60	-5	1	-2	17	32	16	30	45	22	9	-5	-11	-21	-61	8	297	118	415		
16	-62	-81	-82	-81	-28	-26	-16	3	19	10	0	0	0	10	0	0	4	0	8	10	0	5	-4	-8	-31	-14	78	419	497
17	-72	-123	-72	-33	-10	-6	-10	0	0	0	-6	-7	0	0	0	0	0	0	0	0	0	0	0	-12	-15	0	351	351	
18	-47	-26	-8	0	0	0	0	8	7	18	17	4	-7	-13	-3	11	16	16	17	5	0	-1	-32	-13	-1	129	160	289	
20	0	0	0	0	0	0	0	0	0	0	0	0	5	10	20	24	26	13	7	19	15	2	-4	-21	5	141	25	166	
21	-27	-11	-12	-13	-5	-11	-10	3	0	0	0	0	7	16	19	23	34	23	10	13	12	-22	-51	-13	0	-1	160	175	335
22	0	0	0	0	0	0	0	0	0	10	9	5	0	0	0	0	0	0	0	0	0	0	0	-5	0	24	5	29	
23	0	0	-20	-38	-29	-30	-27	-21	-17	-2	-2	49	63	45	7	-76	-227	-177	-40	177	118	-6	-61	249	-3	708	771	1479	
25	30	-23	-72	-38	-30	-1	-13	-19	-19	20	27	59	38	-173	5	-16	-7	-9	-5	27	138	59	89	249	14	742	406	148	
M	-15	-33	-32	-20	-12	-8	-8	-4	1	5	6	10	9	2	12	8	3	1	-1	7	-3	-2	-9	4	-3.3	180	259	439	
MPS	10	0	0	0	0	0	0	1	4	6	7	11	11	10	12	11	11	8	7	4	11	11	12	14	25				
MNS	26	33	32	20	12	8	8	4	3	1	1	1	1	1	8	0	3	8	7	5	4	14	15	21					

AUGUST

1	0	0	7	0	-7	-10	0	0	0	0	0	4	0	0	0	13	22	0	0	0	0	-9	-68	-58	-38	-6	46	190	236
2	-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	-2	0	36	36		
3	-65	-50	-81	-120	-101	-68	-40	-10	-15	-16	-2	23	-11	-12	-13	0	0	0	0	0	0	-8	-25	23	620	643			
4	-20	-23	-13	-8	0	0	0	0	0	-10	0	0	5	-3	21	-1	-12	-10	-2	-12	-18	-12	-6	-6	26	163	189		
5	-5	-3	-6	-29	-41	-20	0	0	0	0	0	0	-7	-15	5	40	-7	-28	0	0	30	32	-18	-3	121	201	322		
6	-18	-12	-11	-24	-18	-10	0	0	0	0	0	0	0	0	0	0	-11	30	18	0	-12	-13	3	6	0	-5	65		
7	0	0	-11	-13	-30	-18	0	0	0	-8	-5	4	18	48	55	35	-77	-18	-15	-48	-5	10	19	20	27	67			
8	280	150	-101	-52	-19	-20	0	-20	10	27	40	78	87	65	1	12	30	32	17	148	69	200	42	122	50	1410	212	1622	
9	270	30	209	-112	-136	-78	-18	20	20	6	13	18	72	20	-2	-68	0	22	23	18	-11	-30	-51	-18	10	751	524	1275	
10	-10	-5	-9	1	4	10	8	10	10	16	13	10	25	35	31	20	20	24	15	3	-11	0	62	72	15	389	35		
11	30	-170	-101	-102	-96	-100	-88	-67	-15	19	28	28	47	23	35	32	22	19	15	-2	-19	2	-6	-3	-18	319	750	1069	
12	-8	-12	-20	-10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203	265	568	
13	-30	-82	-69	-32	-10	0	-6	-5	0	0	0	0	0	0	0	0	-7	-19	17	8	20	10	0	-6	229	82	311		
14	0	0	0	0	0	0	-1	-20	-20	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	124	278	402		
15	0	0	0	0	3	-5	0	0	0	0	0	0	0	0	0	0	5	10	34	44	30	9	-3	0	174	97	271		
16	82	46	-50	-51	-51	-48	-27	-13	-7	-11	-5	-10	53	60	27	34	40	2	-25	36	21	80	122	-57	10	603	355	958	
17	-68	-44	-25	-6	1	-20	0	0	0	0	0	0	6	17	25	40	50	20	12	23	18	-21	-10	-1	-10	319	750	1069	
18	-48	-17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320	260	456		
19	62	31	-90	-129	-111	-67	-33	-18	-9	-6	-2	18	37	47	32	5	10	0	0	8	-5	8	-6	140	82	192	274		
20	97	-39	-60	-31	-39	-35	10	50	19	24	26	55	35	12	7	-38	-10	0	15	-132	19	90	137	83	12	676	399	1075	
21	102	-39	-40	-33	-29	-30	-32	-12	-9	-1	23	47	0	4	-28	-6	-30	-68	-28	-12	-23	110	-12	-217	-14	288			
22	-93	-15	-7	0	0	0	0	0	0	-7	-6	-2	14	-28	-6	-30	-12	-18	-45	-48	-34	-12	-56	337	393				
23	-20	-19	-27	-38	-41	-28	-8	-5	-1	12	11	8	8	32	29	50	22	14	20	5	-1	-7	-1	0	195	195	390		
24	-46	-71	-20	-14	-16	-17	-23	-17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195	195	390	
25	42	9	20	69	69	-56	-60	-28	-9	-20	3	18	43	45	10	42	-13	12	5	-48	-21	30	-48	-56	356	499	855		
26	-16	1	-2	-11	-29	-20	-8	-8	1	14	13	28	50	20	19	-1	-8	2	-17	-52	-21	150	202	-37	11				

Tromsø.

Vertical Intensity. V = 50100 + Tabular Quantities expressed in Gamma.
HOURLY MEAN VALUES

Gr. M. T.

OCTOBER 1931

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	30	21	22	23	M	R	QM	QR		
1	-20	80	-15	-18	60	75	88	130	95	110	108	135	125	140	115	105	50	30	50	100	200	380	180	101	685	103	12		
2	40	150	25	28	83	113	112	108	100	110	155	162	140	100	-50	-65	-70	0	85	70	170	340	440	550	101	840	103	12	
3	440	180	90	40	55	70	115	140	140	128	127	20	125	123	118	125	95	75	118	118	105	77	70	122	680	103	12		
4	110	160	-30	40	78	92	90	95	102	110	115	110	155	170	170	160	115	50	145	420	310	260	265	325	151	665	103	12	
5	280	20	40	80	-40	20	80	130	150	145	110	130	150	160	132	120	65	60	-15	320	230	145	180	230	122	815	103	12	
6	70	-80	0	30	80	93	98	100	115	130	140	150	118	120	122	112	90	40	50	88	108	190	80	90	535	103	12		
7	-30	0	32	52	65	72	90	103	108	120	123	130	142	140	142	136	137	92	113	110	107	103	103	103	96	240	104	15	
8	105	107	103	92	75	60	68	90	100	100	122	108	110	108	125	182	153	120	118	110	50	-10	60	95	190	104	10		
9	85	95	85	73	50	57	70	83	97	100	100	102	120	142	150	152	132	126	110	108	100	101	102	102	102	140	103	13	
10	98	100	100	100	98	97	100	101	103	107	100	122	130	120	105	110	90	128	127	120	105	20	0	100	250	103	13		
11	38	70	102	108	108	103	105	108	110	118	117	120	130	148	140	130	110	103	100	99	97	130	140	110	205	105	13		
12	25	28	78	90	93	93	97	98	98	118	125	123	110	125	170	110	40	100	115	190	230	370	500	550	153	1005	101	20	
13	380	190	50	40	30	40	75	100	110	120	125	120	140	150	85	50	100	110	70	95	90	102	107	115	108	640	103	12	
14	15	50	82	88	98	112	120	115	118	128	140	142	150	148	120	68	115	120	120	98	90	110	120	120	195	103	12		
15	92	100	100	80	102	90	98	110	142	147	132	132	130	180	175	162	137	60	55	118	125	165	190	170	123	325	103	12	
16	88	70	88	98	102	100	100	105	110	117	122	122	138	152	162	172	180	170	140	120	98	98	100	90	118	155	102	12	
17	68	8	35	67	52	70	92	95	105	125	132	128	130	120	108	110	110	40	30	75	130	93	350	103	12				
18	170	100	80	75	88	93	100	105	118	110	120	160	140	152	128	90	75	132	100	155	22	97	130	110	270	103	12		
19	112	68	90	70	72	70	82	98	108	130	138	122	145	118	110	120	140	125	110	35	-30	125	140	230	106	480	103	12	
20	55	52	85	90	97	102	105	110	110	120	118	120	133	125	115	120	112	20	30	82	205	180	105	425	104	13			
21	15	42	60	90	98	98	100	103	108	112	130	108	150	122	122	138	135	140	123	78	0	70	108	80	38	94	265	103	12
22	260	10	-22	-8	40	73	88	115	120	132	128	125	132	130	120	105	120	35	70	88	70	62	78	88	610	103	12		
23	70	88	100	102	100	99	99	100	103	107	118	140	120	128	120	120	112	80	35	70	10	95	20	170	94	610	103	12	
24	30	47	72	18	40	48	72	108	115	125	120	110	105	105	135	110	112	117	117	110	100	98	88	72	88	195	103	19	
25	82	100	105	103	101	100	100	100	101	102	103	110	118	148	140	138	130	128	105	97	80	40	38	103	155	103	12		
M	104.4	75.5	67.2	65.9	77.6	80.2	95.1	106.8	114.9	119.6	121.6	114.2	123.1	121.9	110.5	106.2	87.0	76.6	104.8	120.1	123.8	138.6	142.4	148.4	106.4	473	103	13	
QM	98.2	100.3	101.9	101.4	100.7	100.0	100.5	101.3	101.5	102.3	102.1	103.1	105.1	106.2	107.3	108.1	109.1	110.2	108.1	104.8	101.7	99.9	100.1	100.2					

NOVEMBER

1	60	68	75	83	95	105	112	110	120	135	130	128	120	118	115	120	120	100	102	112	118	122	90	-12	102	205	103	10	
2	70	78	92	97	100	103	110	112	120	125	127	120	125	155	90	60	70	112	120	118	100	100	30	100	175	103	10		
3	58	77	88	62	75	80	83	98	107	135	143	137	132	162	158	170	160	90	50	98	100	160	120	167	112	520	103	10	
4	210	40	-25	-10	42	45	50	80	112	120	132	140	140	122	150	122	110	112	125	80	-35	130	200	180	85	95	650	103	10
5	68	87	82	60	50	42	73	97	132	150	142	150	122	110	112	125	80	-35	130	200	180	85	95	165	105	650	103	10	
6	108	180	100	58	75	30	55	87	110	128	132	145	130	140	122	90	-70	40	68	90	110	40	60	90	445	103	10		
7	160	55	90	70	42	78	112	122	123	130	150	127	130	128	122	95	70	50	90	10	45	98	585	103	10				
8	15	70	60	58	25	50	120	120	110	100	125	120	120	130	130	135	120	75	110	10	30	70	370	150	230	280	103	10	
9	90	-50	-22	-18	80	110	105	112	123	115	110	128	160	130	135	130	95	120	112	80	-20	10	80	90	84	375	103	10	
10	60	25	65	40	70	65	130	125	120	128	122	120	120	122	120	112	110	112	55	140	170	80	105	90	97	55	103	10	
11	83	107	108	107	105	105	105	103	108	125	130	135	140	140	122	90	60	108	110	88	82	50	30	45	101	175	105	10	
12	77	95	100	100	101	101	102	102	103	103	105	107	110	110	120	120	132	128	120	110	107	105	98	67	105	82	104	10	
13	70	72	72	75	82	90	92	97	97	95	100	100	105	112	118	112	108	105	98	60	95	88	88	185	165	100	335	103	17
14	37	58	60	120	105	103	103	103	105	110	115	122	120	120	120	120	120	120	120	120	120	120	120	120	88	345	104	10	
15	80	92	102	100	90	95	105	107	100	103	105	110	110	140	128	125	90	5	-55	150	110	140	310	120	109	640	104	10	
16	145	40	55	52	62	100	93	105	100	103	117	120	155	140	20	-20	-35	-60	140	80	230	30	50	78	650	103	10		
17	90	10	110	88	100	108	120	110	120	130	130	150	120	120	120	120	120	120	120	120	120	120	120	120	80	310	105	10	
18	0	28																											

RESULTS OF MAGNETIC OBSERVATIONS, TROMSÖ 1931

Tromsö.

OCTOBER 1931

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

Gr. M. T.

DAY	HOURLY MEAN VALUES.																							M	DIURNAL SUM			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		PS	NS	AS	
1	-118	-20	-117	-120	-41	-25	-12	29	-6	8	8	5	30	19	33	7	-4	-60	-78	-55	-2	100	290	80	-2	609	658	1267
2	-58	50	-77	-74	-18	13	12	7	-1	8	53	59	35	-6	-157	-173	-179	-110	-13	-35	68	240	340	450	18	1335	901	2236
3	342	80	-12	-62	-46	-30	15	39	39	26	25	17	20	17	25	10	16	-15	-33	13	16	5	-23	-30	19	705	251	956
4	12	60	-132	-62	-23	-8	-10	-6	1	8	13	7	50	64	63	52	6	37	315	208	160	165	225	48	1436	291	1737	
5	182	-80	-62	-22	-141	-80	-20	29	49	43	8	27	45	54	25	12	-44	-50	-123	215	128	45	80	130	19	1072	622	1694
6	-28	-180	-102	-72	-21	-7	-2	-1	14	28	38	47	13	14	13	4	3	-20	-68	-55	-14	8	90	-20	-13	282	590	872
7	-128	-100	-70	-50	-36	-28	-10	2	7	18	21	27	37	34	35	30	28	-18	0	0	0	0	0	0	-8	239	440	679
8	-10	0	-10	-26	-40	-32	-10	0	0	10	5	15	4	1	17	23	15	12	13	8	-50	-110	-40	-9	111	318	429	
9	-13	-5	-17	-29	-51	-43	-30	0	0	0	-1	15	36	43	44	23	15	0	0	0	0	0	0	-1	176	204	380	
10	0	0	0	0	0	0	0	5	0	19	25	14	0	-3	1	-20	20	22	18	5	-80	-100	-3	129	203	332		
11	-60	-30	0	3	0	0	-4	0	0	0	11	12	15	24	41	32	21	0	0	0	30	40	6	229	94	323		
12	-73	69	-17	0	0	0	0	18	23	20	5	19	63	2	-69	-10	7	85	128	270	400	450	52	1480	238	1728		
13	282	90	-52	-62	-71	-60	-25	-1	9	18	23	17	35	44	-22	-58	-9	-38	-10	-12	2	7	15	5	542	423	965	
14	-83	-50	-20	-14	-3	-12	20	14	11	16	26	37	37	44	35	40	11	-22	7	15	28	20	-2	-10	7	373	204	577
15	-6	0	-2	-22	1	-10	-2	9	41	45	30	29	25	44	68	54	28	-50	-53	13	23	55	90	70	21	635	145	780
16	-10	-30	-14	0	0	0	0	4	9	15	20	19	33	46	55	64	71	60	34	18	0	0	0	-10	16	448	64	512
17	-30	-92	-67	-35	-49	-30	-8	4	24	30	26	27	45	14	11	0	0	4	-62	-70	-25	30	-11	215	468	683		
18	72	0	-22	-27	-13	-7	0	4	4	16	8	17	55	34	45	20	-19	-35	24	-5	58	78	-3	30	7	382	209	591
19	14	-32	-12	-32	-29	-30	-8	7	29	35	20	42	15	4	5	32	16	0	-3	-70	-132	-25	40	130	3	413	345	758
20	-43	-48	-17	-10	0	0	0	0	0	15	15	13	14	26	21	7	10	4	-85	-72	-18	105	80	1	305	293	598	
21	-83	-58	-42	-10	0	0	0	0	7	10	28	5	45	16	31	27	31	13	-30	-105	-32	8	-20	-62	-9	221	442	683
22	162	-90	-124	-110	-61	-27	-12	14	19	30	26	22	27	24	13	-3	21	-90	-73	-35	-14	-30	-38	-22	-16	358	927	1087
23	-28	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-9	175	380	555	
24	-68	-53	-30	-84	-61	-52	-28	7	14	23	18	7	0	12	10	0	5	0	0	-12	-38	-28	-15	98	454	550		
25	16	0	0	0	0	0	0	0	0	0	0	0	5	12	41	32	29	20	20	0	-5	-20	-60	-6	0	159	163	322
M	6	-25	-35	-36	-23	-20	-5	6	13	17	20	11	18	16	3	-2	-12	-34	-3	15	22	37	42	48	3,3	501	421	922
MPS	35	9	2	0	2	1	2	7	14	17	19	27	23	28	18	11	4	19	33	39	50	61	63					
MNS	29	34	37	36	25	21	7	1	0	0	8	9	7	23	20	24	38	23	18	17	12	19	15					

NOVEMBER																									M					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	-40	-32	-25	-17	-6	4	10	8	17	32	27	24	15	12	8	12	11	-10	-6	7	16	22	-10	-112	-1	225	258	483		
2	-30	-22	-28	-8	-4	-1	8	9	17	22	23	15	19	48	-18	-49	-40	4	15	16	0	0	-70	-3	197	270	467			
3	-62	-23	-12	-38	-26	-21	-19	-4	4	32	40	33	27	55	51	62	51	-20	-58	-7	-2	60	20	67	9	503	292	795		
4	110	-60	-125	-110	-59	-51	-22	10	17	29	37	-14	25	24	43	42	46	8	12	-40	-12	-7	-10	-7	-5	403	512	915		
5	-12	-13	-18	-40	-51	-59	-29	5	29	47	39	46	17	4	5	17	-29	-145	22	95	78	-15	-5	65	2	464	421	885		
6	8	80	0	-42	-26	-71	-47	-15	7	25	29	41	25	24	33	14	-29	-180	-68	-37	-12	10	-60	-40	-14	296	627	923		
7	60	-45	-10	-59	-23	10	20	20	27	47	23	25	29	15	20	13	18	-13	-35	-52	-10	-90	-55	-5	309	440	749			
8	-85	-30	-40	-42	-75	-51	18	7	-3	22	16	55	24	-32	2	1	-40	-118	-35	268	50	130	150	5	781	652	1413			
9	-10	-15	-12	-11	-18	-21	9	3	10	20	12	7	24	55	28	22	-14	10	4	-2	-15	-12	-80	-10	-10	-10	228	702	930	
10	-40	-75	-35	-60	-31	-16	-21	28	23	17	15	16	7	14	42	3	-20	-15	-55	35	68	-20	-35	-3	179	1007	1186			
11	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	53	86	139			
12	-23	-5	-17	-23	-19	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	3	81	22	103		
13	-30	-28	-23	-19	-11	-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-12	28	300	323			
14	-63	-42	-40	-17	-13	-17	-17	-28	47	32	9	26	25	14	-87	-28	-4	-30	-73	-25	-112	-80	5	-20	206	689	895			
15	-20	-8	-25	-12	-11	-13	-17	-28	47	32	9	26	17	-3	55	14	13	-10	-20	-25	-42	-70	-5	-35	-3	179	1007	1186		
16	-45	-60	-50	-45	-39	-2	-9	2	-3	0	13	15	49	33	-88	-129	-145	-168	35	-22	130	-80	-50	-26	322	939	1261			
17	-10	-90	-10	-12	-7	-7	-10	17	7	17	14	10	24	43	22	3	2	-112	-153	-135	-97	210	70	70	-4	524	625	1149		
18	-100	-72	-25	-12	-11	-13	-17	-28	47	32	9	26	25	14	-87	-28	-4	-30												

RESUMING TABLES

Tromso

Gr. M. T.

Diurnal Variation QUIET VALUES																			Local Noon = 10 ^h 44.2 ^m Gr.M.T.						
Declination. Unit Gamma. + West.																									
1931	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
JANUARY	4	4	4	3	2	1	0	-1	-2	-2	-3	-4	-3	-3	-3	-2	-2	-1	-1	0	1	3	4	4	
FEBRUARY	3	4	5	5	4	3	2	1	0	-2	-3	-5	-6	-6	-5	-4	-5	-4	-3	-1	0	1	3	3	
MARCH	2	4	6	7	8	9	8	7	4	-3	-9	-12	-15	-11	-8	-3	-2	-1	0	0	0	1	1	1	
APRIL	4	7	11	14	16	18	16	12	4	-3	-9	-14	-20	-15	-10	-6	-4	-3	-3	-3	-2	-2	0	2	
MAY	7	9	14	19	21	21	18	12	3	-4	-10	-16	-20	-17	-13	-10	-10	-9	-8	-8	-6	-3	0	5	
JUNE	12	16	20	22	23	21	18	12	6	-3	-11	-16	-22	-20	-16	-13	-11	-11	-11	-10	-5	0	6		
JULY	10	15	20	23	24	22	21	17	9	-1	-10	-17	-21	-21	-18	-14	-11	-11	-11	-10	-8	-7	-2	3	
AUGUST	10	14	17	20	21	22	20	14	6	-5	-13	-20	-25	-23	-18	-13	-10	-10	-8	-5	-3	0	3	6	
SEPTEMBER	10	12	13	14	15	15	13	10	5	-3	-9	-14	-16	-15	-12	-11	-9	-9	-9	-6	-2	1	4	7	
OCTOBER	7	7	8	8	7	6	6	4	2	-3	-8	-11	-11	-10	-9	-8	-5	-3	-1	1	2	3	4	6	
NOVEMBER	6	6	5	3	3	2	1	0	-1	-3	-4	-5	-6	-6	-7	-7	-5	-3	-2	0	2	4	6	7	
DECEMBER	4	3	3	3	2	1	1	0	-1	-3	-4	-4	-4	-4	-3	-2	-1	1	2	3	4	4	4		
MEAN	6.6	8.4	10.5	11.8	12.2	11.8	10.3	7.3	2.9	-2.9	-7.8	-12.5	-14.1	-12.6	-10.2	-7.8	-6.3	-5.5	-4.7	-3.4	-1.9	0	2.3	4.5	
Horizontal Intensity. Unit Gamma.																									
JANUARY	-2	-2	-1	-1	0	1	1	0	0	-1	-1	0	0	1	1	1	2	2	2	1	0	-1	-2	-2	
FEBRUARY	-1	-1	0	1	1	1	0	-1	-2	-4	-5	-3	-1	0	1	2	3	4	4	3	2	1	0	-1	
MARCH	4	4	5	6	6	4	1	-5	-12	-16	-17	-13	-9	-4	0	4	6	8	9	7	6	5	4	4	
APRIL	7	7	7	7	6	3	-3	-11	-18	-24	-24	-21	-13	-5	0	5	9	12	13	11	9	7	7	7	
MAY	7	7	6	4	1	-5	-11	-18	-23	-25	-23	-19	-10	-1	5	10	13	15	15	13	11	9	8	7	
JUNE	5	6	5	4	1	-6	-13	-19	-24	-26	-25	-22	-12	-1	7	13	18	20	20	17	14	9	7	5	
JULY	3	4	4	5	3	-3	-8	-18	-26	-28	-25	-17	-9	0	7	13	18	19	18	16	12	8	3	2	
AUGUST	2	3	3	3	2	0	-4	-11	-18	-23	-23	-17	-8	2	6	10	11	13	14	11	8	5	2	1	
SEPTEMBER	0	1	3	4	3	1	-4	-5	-10	-14	-13	-11	-6	1	4	6	8	9	9	7	5	3	1	0	
OCTOBER	-2	0	3	5	4	2	0	-5	-9	-11	-11	-8	-3	2	6	9	10	8	6	2	0	-2	-3	-3	
NOVEMBER	-3	-1	0	1	3	3	1	-1	-4	-6	-8	-6	-3	0	3	6	7	6	4	3	1	0	-2	-3	
DECEMBER	-3	-2	-1	0	2	3	2	0	-1	-2	-3	-2	-1	0	2	3	5	3	1	0	-1	-1	-2	-3	
MEAN	1.4	2.2	2.8	3.2	2.7	0.3	-2.9	-7.9	-12.2	-15.0	-14.8	-11.6	-6.3	-0.4	3.5	6.8	9.2	9.9	9.6	7.6	5.6	3.6	1.9	1.2	
Vertical Intensity. Unit Gamma.																									
JANUARY	-3	-2	-1	1	-2	-3	-4	-3	-1	-1	0	1	3	4	4	3	2	2	1	1	0	-1	-2	-3	
FEBRUARY	-1	0	-1	-2	-2	-3	-4	-4	-3	-2	-1	0	0	1	2	2	3	3	4	3	3	2	1	0	
MARCH	-1	-1	-1	-2	-2	-1	-1	-1	-1	0	1	1	2	3	3	3	4	3	2	0	-2	-3	-4	-4	
APRIL	-1	0	1	2	1	0	0	-1	-1	0	0	1	1	2	3	4	3	1	0	-2	-3	-4	-5	-3	
MAY	0	1	1	2	1	0	-1	-2	-3	-3	-3	-2	0	2	3	4	3	1	0	0	0	-1	0	0	
JUNE	0	-1	-1	-2	-2	-2	-3	-4	-4	-3	-2	-1	-1	0	1	2	4	3	3	2	1	0	0	0	
JULY	-1	0	1	0	-1	-1	0	0	-1	-2	-2	-1	-1	0	2	2	3	3	2	1	0	-1	-1	-1	
AUGUST	-2	-2	-1	0	-1	-1	-2	-2	-2	-2	-2	-2	-2	0	3	6	8	7	4	0	-1	-2	-3	-4	
SEPTEMBER	-3	-2	-1	0	0	0	0	-1	-2	-4	-4	-2	0	2	4	6	7	6	4	1	-1	-3	-5	-5	
OCTOBER	-5	-3	-1	-1	-2	-3	-3	-2	-2	-1	-1	0	2	3	4	5	6	7	5	2	-1	-3	-3	-3	
NOVEMBER	-3	-3	-2	-2	-2	-3	-2	-2	-2	-1	0	2	3	4	5	7	6	4	2	0	-2	-3	-4	-4	
DECEMBER	-2	-1	0	0	0	-1	-2	-3	-3	-2	0	2	2	3	3	2	2	1	0	-1	-2	-2	-2	-2	
MEAN	-1.8	-1.2	-0.5	-0.5	-1.0	-1.3	-1.8	-2.0	-2.0	-1.8	-1.7	-0.8	0.3	1.5	2.8	3.5	4.4	3.9	2.8	1.2	-0.2	-1.3	-2.3	-2.5	
Monthly Means.																									
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN												
DECLINATION.																									
DIRECT VALUES. D = 4° W + . . .	3.7	3.0	1.7	1.8	2.2	1.8	0.4	-0.3	-3.3	-4.3	-5.4	-5.8	-0.4												
QUIET VALUES. D ₀ = 4° W + . . .	4.8	4.8	3.1	2.5	2.7	2.3	0.0	0.6	-0.1	-1.7	-3.7	-4.6	1.0												
RANGE	42.7	61.4	54.2	41.6	47.0	56.0	44.3	58.6	81.4	103.0	87.2	70.9	62.4												
QUIET RANGE	3.3	4.1	7.5	10.6	12.7	14.2	14.1	13.7	9.0	6.1	4.6	2.8	6.6												
STORMINESS, MEAN	-3.5γ	-3.7γ	-3.6γ	-2.3γ	-1.7γ	-2.4γ	-1.8γ	-3.2γ	-1.1γ	-8.6γ	-5.7γ	-4.4γ	-3.5γ												
DIURNAL SUM PS (UNIT γ)	46	89	92	56	82	110	82	88	78	112	88	82	84												
NS	133	178	236	113	123	169	125	166	335	317	226	187	192												
AS	179	267	328	169	205	279	207	254	413	429	314	269	276												
HORIZONTAL INTENSITY.																									
DIRECT VALUES. H = 11500 γ + . . .	72.4γ	70.7γ	61.2γ	61.2γ	55.6γ	56.5γ	56.1γ	44.4γ	24.7γ	14.7γ	20.7γ	31.9γ	47.5γ												
QUIET VALUES. H ₀ = 11500 γ + . . .	78γ	81γ	76γ	69γ	65γ	67γ	64γ	57γ	54γ	49γ	46γ	44γ	63γ												
RANGE	297γ	372γ	359γ	299γ	302γ	387γ	330γ	452γ	588γ	629γ	574γ	489γ	423γ												
QUIET RANGE	9γ	14γ	23γ	38γ	39γ	47γ	48γ	36γ	29γ	23γ	14γ	8γ	27γ												
STORMINESS, MEAN	-6.2γ	-10.6γ	-15.3γ	-8.3γ	-9.8γ	-9.9γ	-8.2γ	-13.0γ	-29.0γ	-34.6γ	-25.1γ	-11.9γ	15.1γ												
DIURNAL SUM PS (UNIT γ)	172	220	208	196	275	354	250	412	399	342	343	360	294												
NS	322	476	574	395	511	586	446	723	1094	1173	946	644	657												
AS	494	696	782	591	786	940	696	1135	1493	1515	1289	1004	952												
VERTICAL INTENSITY.																									
DIRECT VALUES. V = 50100 γ + . . .	95.5γ	90.0γ	94.7γ	97.8γ	105.8γ	106.0γ	98.3γ	99.5γ	100.9γ	106.4γ	94.2γ	88.3γ	98.1γ												
QUIET VALUES. V ₀ = 50100 γ + . . .	99γ	97γ	88γ	99γ	104γ	102γ	101γ	101γ	103γ	102γ	100γ	101γ	101γ												
RANGE	169γ	276γ	238γ	166γ	191γ	265γ	231γ	268γ	378γ	473γ	383γ	311γ	279γ												
QUIET RANGE	11γ	11γ	11γ	11γ	10γ	12γ	12γ	15γ	13γ	13γ	12γ	11γ	12γ												
STORMINESS, MEAN	-3.8γ	-6.7γ	-3.1γ	-1.5γ	1.6γ	3.7γ	-3.3γ	-1.2γ	-0.6γ	3.3γ	-8.6γ	-11.7γ	-2.7γ												
DIURNAL SUM PS (UNIT γ)	111	163	180	137	20																				

The Diurnal Sums are 24 times greater than the corresponding Mean Values.

Tromsö

RESUMING TABLES

Gr. M. T.

Storminess.

Local Noon = 10^h44.2^m Gr.M.T.

Declination. Unit Gamma. + West.

1931		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	PS	1	1	1	3	1	2	3	2	1	2	4	8	10	10	17	22	21	17	19	13	7	3	3	2
	NS	48	21	21	6	3	1	0	1	2	0	0	0	0	0	1	0	0	2	5	20	27	38	54	68
FEBRUARY	PS	0	1	1	2	3	3	3	1	2	3	5	9	16	23	30	31	32	19	14	11	5	4	0	1
	NS	69	61	37	16	5	8	9	2	2	1	0	0	1	0	0	1	0	3	2	20	28	62	79	69
MARCH	PS	0	0	0	2	2	3	3	4	3	5	8	12	15	23	24	17	27	25	22	11	3	0	0	0
	NS	104	66	26	20	20	9	3	1	1	2	2	2	2	1	2	1	1	1	1	14	32	74	97	95
APRIL	PS	1	1	1	1	1	0	1	1	2	4	6	9	11	15	23	27	30	30	17	5	2	0	0	0
	NS	64	39	25	21	14	5	1	2	0	1	0	1	0	0	0	0	0	0	0	21	38	38	56	59
MAY	PS	0	1	1	2	2	3	3	4	6	5	12	17	23	28	35	30	33	35	29	9	0	0	0	0
	NS	60	52	48	47	37	12	3	2	1	1	3	0	0	1	0	0	0	0	8	35	63	68	61	
JUNE	PS	0	1	1	2	3	3	4	5	5	10	16	28	30	28	33	51	49	41	29	16	4	1	0	0
	NS	101	72	55	35	19	13	2	1	1	3	0	0	0	0	0	0	0	4	10	34	56	84	111	
JULY	PS	1	0	1	2	2	1	1	2	5	6	8	10	26	34	26	35	25	28	23	8	3	2	1	1
	NS	81	47	32	10	9	5	3	2	1	0	1	2	2	1	1	1	1	1	13	30	49	73	80	
AUGUST	PS	0	1	1	4	1	1	1	1	3	10	18	28	42	43	69	55	49	41	28	11	2	0	0	0
	NS	115	84	47	28	26	13	10	8	3	1	2	1	0	1	1	2	0	3	19	56	103	109	91	
SEPTEMBER	PS	0	0	0	3	2	5	6	6	6	12	17	29	44	58	61	58	43	30	15	3	1	1	0	0
	NS	136	142	113	67	27	5	4	2	2	2	0	1	1	0	1	1	2	23	47	74	140	162	145	
OCTOBER	PS	0	0	0	0	2	3	4	7	10	13	23	34	41	51	42	44	37	20	7	2	0	0	0	0
	NS	164	116	66	45	34	17	7	3	2	0	0	0	4	5	5	9	16	21	68	87	93	122	138	152
NOVEMBER	PS	0	0	3	2	4	4	5	5	7	9	16	23	39	42	53	44	39	23	17	5	2	0	0	0
	NS	104	72	50	29	11	6	4	2	1	0	0	0	1	0	0	1	23	31	55	99	158	168	137	
DECEMBER	PS	1	0	1	3	4	5	10	6	8	9	10	13	20	34	43	45	50	40	29	17	9	4	0	0
	NS	82	59	31	16	10	7	1	0	1	0	0	0	0	0	0	0	0	8	34	74	109	102	107	
MEAN	PS	0	1	1	2	2	3	4	4	5	7	12	18	26	32	38	38	36	29	21	9	3	1	0	0
	NS	94	69	46	28	18	8	4	2	1	1	1	1	1	1	1	1	2	4	12	29	52	84	99	98
	AS	94	70	47	30	20	11	8	6	8	13	19	27	33	39	39	38	33	33	38	55	85	89	98	98
	PS - NS	-94	-68	-45	-26	-16	-5	0	2	4	6	11	17	25	31	37	37	34	25	9	-20	-49	-83	-99	-98

Vertical Intensity. Unit Gamma. + Down.

1931		1	0	0	0	1	2	1	0	0	1	3	4	2	1	3	3	2	2	3	2	3	1	0	2	
JANUARY	PS	15	13	10	6	4	2	1	0	0	0	1	0	0	0	0	0	2	5	2	6	5	10	11	10	
	NS	15	13	10	6	4	2	1	0	0	0	1	0	0	0	0	0	1	2	3	7	13	23	24		
FEBRUARY	PS	0	1	0	0	1	3	4	2	3	2	3	5	6	7	6	8	10	10	7	4	3	3	0	0	
	NS	21	23	18	13	6	3	1	1	1	0	0	0	0	0	1	1	4	3	7	4	7	13	23	24	
MARCH	PS	0	0	0	0	0	1	2	2	2	2	3	3	5	5	5	7	8	5	4	5	6	7	3	0	0
	NS	31	26	13	12	9	5	2	1	0	0	0	0	0	0	0	1	1	1	3	4	6	17	22	26	
APRIL	PS	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0
	NS	18	13	10	8	4	3	2	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	17	
MAY	PS	0	0	0	0	0	1	2	3	3	3	2	2	2	3	4	5	8	5	9	12	12	4	1	0	0
	NS	24	21	15	9	5	6	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	7	15	15	
JUNE	PS	1	0	0	0	1	2	1	3	2	1	3	3	3	3	6	7	10	11	14	14	12	6	4	0	1
	NS	26	28	16	16	8	4	3	3	3	3	1	2	0	0	0	0	0	0	0	0	0	2	8	13	24
JULY	PS	0	0	1	1	2	2	2	2	2	2	3	4	4	5	3	6	8	9	12	8	4	1	1	1	
	NS	20	18	14	5	4	3	3	1	1	2	2	1	2	1	1	1	1	1	0	0	0	3	9	16	18
AUGUST	PS	0	0	1	1	2	5	4	4	3	2	2	2	2	3	5	3	6	7	10	11	9	3	0	0	
	NS	25	26	17	9	5	1	3	1	1	1	1	3	2	0	0	0	0	1	2	1	1	1	1	21	
SEPTEMBER	PS	0	0	0	0	2	4	3	3	2	2	2	2	3	4	6	10	8	7	5	4	8	3	0	0	
	NS	38	49	54	21	6	3	1	2	2	2	3	2	2	2	3	2	5	5	6	6	9	11	23	41	
OCTOBER	PS	0	0	0	0	2	4	6	5	4	3	3	3	4	4	6	7	12	12	11	18	7	2	0	0	
	NS	44	38	36	17	8	2	2	1	1	2	5	3	5	4	4	6	6	8	10	15	16	26	39		
NOVEMBER	PS	0	0	1	1	2	7	8	5	2	1	2	6	6	9	4	5	5	3	6	4	12	22	25		
	NS	23	22	16	11	3	0	0	1	1	2	2	1	3	2	4	4	9	18	4	12	15	20	25		
DECEMBER	PS	0	0	0	0	2	5	4	4	3	2	3	5	8	16	20	18	14	11	7	5	7	28	32	20	
	NS	22	15	12	7	4	0	1	1	1	1	1	1	1	1	1	1	5	4	3	4	6	2	-24		
MEAN	PS	0	0	0	0	1	3	3	3	2	2	4	4	4	5	6	6	7	8	9	7	4	2	1	0	
	NS	26	24	19	11	6	6	5	4	4	3	3	5	5	6	8	9	10	12	12	12	14	24			
	AS	26	24	19	11	6	6	5	4	4	3	3	5	5	6	8	9	10	12	12	12	16	22			
	PS - NS	-26	-24	-19	-11	-4	0	1	2	2	1	1	3	3	4	4	4	4	4	4	4	4	-12	-20	-24	

Horizontal Intensity. Unit Gamma.

1931		7	4	1	1	0	0	1	3	6	7	9	11	14	15	16	14	11	7	6	9	13	20	22	23

<tbl_r cells="24" ix="3" maxcspan="

Tromsø

Gr. M. T.

Quiet Diurnal Variation used in the Calculation of the Storminess.

Declination. Unit Gamma. + West.

1931		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	1 - 14 15 - 31	-5 -4	-5 -3	-4 -3	-3 -2	-2 -1	-1 0	0 1	2 2	3 2	3 3	3 4	3 4	2 3	2 3	2 3	2 2	1 2	0 2	-1 2	-2 0	-3 -2	-4 -3	-5 -4	
FEBRUARY	1 - 15 16 - 28	-3 -4	-4 -5	-5 -5	-5 -4	-4 -3	-2 -2	-1 -1	0 1	1 3	2 3	4 5	5 6	4 7	4 5	4 5	4 5	4 5	4 4	3 3	2 2	-1 -2	-2 -3	-3 -4	
MARCH	1 - 15 16 - 31	-3 -2	-5 -4	-6 -6	-7 -7	-9 -8	-8 -10	-6 -11	-4 -10	-1 -7	3 3	10 13	12 17	9 13	7 8	4 3	3 1	2 1	0 0	-1 0	-1 0	-1 0	-1 0	-2 0	
APRIL	1 - 15 16 - 30	-2 -6	-5 -9	-9 -13	-12 -16	-15 -18	-17 -18	-12 -16	-11 -11	-1 -3	3 4	10 15	19 20	16 15	11 10	6 7	2 7	1 6	4 4	3 3	2 2	-1 -1	-2 -3	-1 -3	
MAY	1 - 17 18 - 31	-6 -7	-9 -10	-14 -15	-19 -19	-22 -20	-20 -21	-18 -18	-13 -13	-2 -5	6 2	12 9	16 17	19 20	16 17	12 15	9 11	9 10	8 9	7 8	4 4	1 0	-1 -5		
JUNE	1 - 14 15 - 30	-11 -13	-15 -17	-18 -21	-21 -24	-23 -24	-21 -21	-18 -17	-12 -12	-5 -5	3 3	10 16	12 21	22 20	20 16	15 14	12 12	10 12	10 13	9 11	9 6	4 1	-1 -6		
JULY	1 - 13 14 - 31	-11 -8	-17 -13	-21 -18	-24 -23	-26 -22	-24 -21	-19 -16	-10 -16	-1 -1	1 9	12 16	19 20	23 20	22 17	19 13	13 10	13 9	14 8	15 7	10 7	6 2	-1 -3		
AUGUST	1 - 31	-10	-14	-17	-20	-21	-22	-20	-14	-6	5	13	20	25	23	18	13	10	10	8	5	3	0	-3	-6
SEPTEMBER	1 - 11 12 - 30	-11 -9	-13 -11	-15 -12	-16 -12	-17 -11	-11 -9	-5 -6	-4 -8	-1	8	13	14	13	11	10	9	9	9	6	2	2	-1	-4	-7
OCTOBER	1 - 22 23 - 31	-7 -7	-7 -8	-8 -8	-7 -7	-7 -6	-5 -5	-5 -3	-2	3	8	12	12	11	10	8	5	3	1	-1	-2	-3	-5	-6	
NOVEMBER	1 - 13 14 - 30	-8 -5	-8 -4	-7 -3	-5 -2	-4 -2	-3 -2	-2	-1	0	2	3	4	5	7	8	9	7	5	3	1	-1	-3	-5	-8
DECEMBER	1 - 17 18 - 31	-5 -3	-4 -3	-4 -2	-3 -2	-1	-1	0	0	2	4	4	5	4	4	3	3	2	0	-2	-3	-4	-5	-5	

Horizontal Intensity. Unit Gamma.

JANUARY	1 - 9 13 - 16 20 - 31	-2 -2 -3	-1 -2 -2	-1 -1	0 0	0 1	1 2	0 1	0 -2	-1 -3	0 -2	0 -1	0 -2	0 -1	0 0	0 1	1 2	1 1	0 0	-1 -1	-1 -2	-2 -3	
FEBRUARY	5 - 16 17 - 23	-1 0	-1 0	0 1	0 1	1 !	0 -	0 -2	-2 -3	-4 -5	-4 -6	-2 -4	-1 -1	0 0	0 1	1 2	3 5	2 5	1 4	2 2	0 0	-1 -1	
MARCH	4 - 12 15 - 20 23 - 31	3 4 5	3 5 6	3 6 7	4 6 6	4 6 6	3 4 4	1 2 -	-3 -5 -15	-7 -18 -19	-14 -19 -18	-11 -16 -13	-7 -11 -8	-4 -5 -3	-1 -1 2	3 5 7	7 8 9	6 7 8	5 6 7	4 4 6	3 3 5		
APRIL	1 - 11 12 - 19 20 - 30	7 8 6	8 7 6	9 7 5	9 7 4	8 7 3	6 5 2	1 -2 -7	-6 -12 -14	-16 -20 -19	-23 -25 -22	-26 -24 -19	-24 -20 -19	-15 -15 -12	-6 -5 -5	0 0 0	4 4 6	7 8 11	9 10 14	10 12 15	6 6 7	7 6 7	
MAY	1 - 8 9 - 13 14 - 25 26 - 31	6 8 7 6	5 7 5 4	5 5 6 4	4 2 3 1	4 7 6 3	2 7 5 4	-3 -6 -10 -13	-9 -12 -17 -25	-16 -18 -24 -27	-21 -19 -24 -27	-23 -20 -24 -27	-26 -24 -21 -16	-15 -15 -11 -6	-6 -5 -4 -3	0 0 1 1	4 8 11 9	12 15 14 13	13 14 12 10	9 8 7 6	8 7 6 5		
JUNE	1 - 6 7 - 20 21 - 30	6 3 6	7 3 8	6 3 7	6 3 8	3 3 5	2 -2 -7	-8 -15 -16	-15 -19 -23	-21 -23 -27	-27 -25 -27	-28 -26 -25	-26 -24 -20	-9 -13 -12	-1 -3 -5	1 0 0	9 6 7	10 12 17	11 14 20	12 15 13	6 8 5	7 7 5	
JULY	1 - 6 7 - 18 19 - 26 27 - 31	6 2 1 1	7 4 2 2	7 6 5 4	5 3 0 0	0 -6 -15 -15	-6 -12 -23 -27	-19 -19 -27	-27 -30 -32	-30 -32 -32	-32 -30 -26	-26 -24 -24	-26 -24 -21	-12 -12 -16	-1 -1 -1	7 6 5	14 12 10	20 22 22	22 20 20	20 18 16	14 12 13	9 7 6	
AUGUST	1 - 16 17 - 31	2 2	2 3	3 4	2 3	1 1	-1 -4	-12 -10	-18 -24	-22 -25	-21 -27	-16 -20	-16 -19	-9 -12	-7 -9	2 2	7 6	10 7	12 11	13 14	11 13	8 5	2 1
SEPTEMBER	1 - 7 8 - 17 18 - 22 23 - 30	4 2 0 -1	5 4 2 1	6 5 4 3	7 6 3 2	3 1 0 -	-11 -4 -4 -7	-12 -8 -5 -2	-19 -19 -10 -9	-27 -24 -20 -13	-30 -24 -15 -12	-32 -24 -15 -12	-30 -26 -16 -12	-12 -11 -11 -6	-1 -1 -1 -1	4 4 4 4	6 6 6 5	8 8 8 7	11 10 9 8	13 12 11 10	9 7 6 5	5 4 2 0	
OCTOBER	1 - 7 8 - 22 23 - 31	-2 -2 -1	0 5 3	2 4 4	2 3 2	1 0 -	-5 -5 -5	-9 -8 -5	-12 -11 -10	-12 -11 -7	-9 -9 -7	-9 -8 -5	-9 -8 -6	-5 -4 -3	-1 -1 -1	5 7 3	7 9 7	9 11 10	9 10 9	7 6 5	4 3 2	-1 -2 -3	
NOVEMBER	1 - 10 11 - 21 22 - 30	-2 -3 -4	0 -1 -3	2 1 2	3 2 0	1 2 0	-2 -2 -1	-5 -6 -5	-7 -6 -4	-9 -8 -2	-7 -6 -2	-9 -8 -1	-7 -6 -1	-4 -3 -1	0 0 1	4 4 2	7 6 6	8 6 5	6 5 4	4 3 2	1 0 -1	-2 -3	
DECEMBER	1 - 17 18 - 31	-3 -3	-2 -2	-1 -1	0 0	2 2	3 3	2 2	0 0	-1 -2	-2 -2	-1 -2	-1 -1	0 0	1 1	2 2	3 2	0 0	-1 -2	-2 -3	-2 -3	-2 -3	-2 -3

Vertical Intensity. Unit Gamma.

JANUARY	1 - 10 11 - 23 24 - 31	-4 -3 -3	-3 -2 -2	-2 -1 -1	-1 0 -1	-2 -2 -3	-2 -4 -4	-3 -3 -3	-3 -4 -4	-2 -1 -1	-1 0 1	0 1 2	2 3 3	4 4 3	4 4 3	6 5 2	5 4 2	4 3 2	3 2 1	3 0 0	2 1 -1	-1 -2 -3	
FEBRUARY	1 - 16 17 - 28	0 -1	0 -1	0 -2	0 -1	-3 -2	-4 -2	-5 -1	-5 -2	-4 -1	0 0	1 1	2 3	3 4	3 3	2 2	2 2	2 3	3 3	4 3	2 2	1 0	-1 -2
MARCH	1 - 15 16 - 31	-2 -1	-2 0	-2 -1	-2 -2	-1 0	-2 -1	-2 -3	-2 -3	-1 -1	0 0	1 0	1 2	2 3	2 3	2 3	3 4	3 3	3 3	4 3	2 2	1 0	-1 -2
APRIL	1 - 20 21 - 30	-2 -1	-1 0	-1 1	-1 2	0 1	-1 0	-1 -1	-1 -1	0 -1	0 0	0 0	1 0	1 2	1 3	1 2	2 3	2 3	2 3	2 3	1 0	-1 -2	-3 -4
MAY	1 - 16 17 - 31	0 0	1 0	2 1	2 1	0 2	0 -2	-3 -3	-3 -4	-3 -4	-3 -3	-3 -3	-2 -2	-2 -3	-3 -3	-2 -1	1 1	2 3	3 4	3 4	3 4	1 0	0 0
JUNE	1 - 12 19 - 30	0 0	-1 -1	-1 0	-1 -2	0 1	-1 0	-1 -2	-3 -3	-3 -3	-2 -2	-2 -2	-2 -1	-1 -1	-1 0	-1 1	0 2	1 2	2 3	2 3	2 3	1 0	0 0
JULY	1 - 14 15 - 31	0 -2	1 -1	0 -1	-1 -2	0 -1	0 -1	0 -2	-2 -2	-2 -2	-2 -2	-2 -2	-1 -1	0 0	0 1	1 3	1 4	1 5	1 6	1 7	1 8	1 9	1 10
AUGUST	1 - 14 15 - 31	-2 -3	-2 -2	-1 0	0 -1	-1 -1	-2 -1	-2 -2	-2 -3	-2 -4	-2 -6	-2 -6	-1 -1	0 0	1 1	1 3	5 6	6 7	6 7	6 7	6 7	6 7	6 7
SEPTEMBER	1 - 11 12 - 30	-3 -4	-2 -2	-1 0	0 -1	-1 -2	-2 -2	-2 -2	-2 -3	-2 -3	-2 -4	-2 -4	-1 -1	0 0	1 1	1 2	4 5	4 5	4 5	4 5	4 5	4 5	4 5
OCTOBER	1 - 31	-5	-3	-1	-1	-2	-3	-3	-2	-1	-1	0	2	3	4	5	6	7	5	6	7	5	3
NOVEMBER	1 - 21 22 - 30	-3	-3	-3	-3	-2	-2	-1	-1	0	0	0	1	2	3	4	5	6	7	5	6	7	5
DECEMBER	1 - 16 17 - 31	-3	-2	-1	-1	0	0	-1	-1	-3	-2	-4	-4	-2	-2	-1	1	1	1	0	0	-1	-2

OMIT

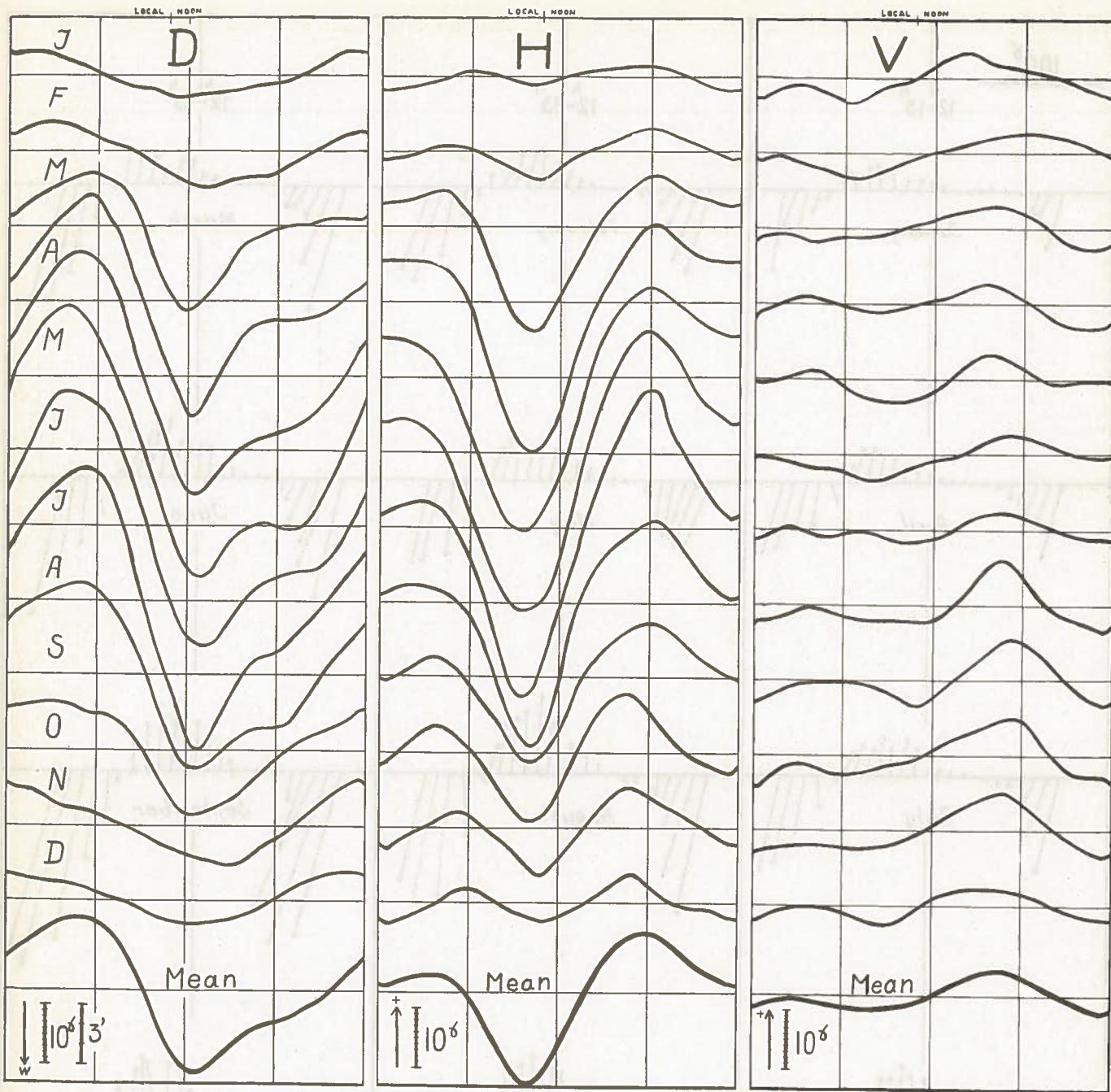


Fig. 1. The Diurnal Variation of the Quiet Values.

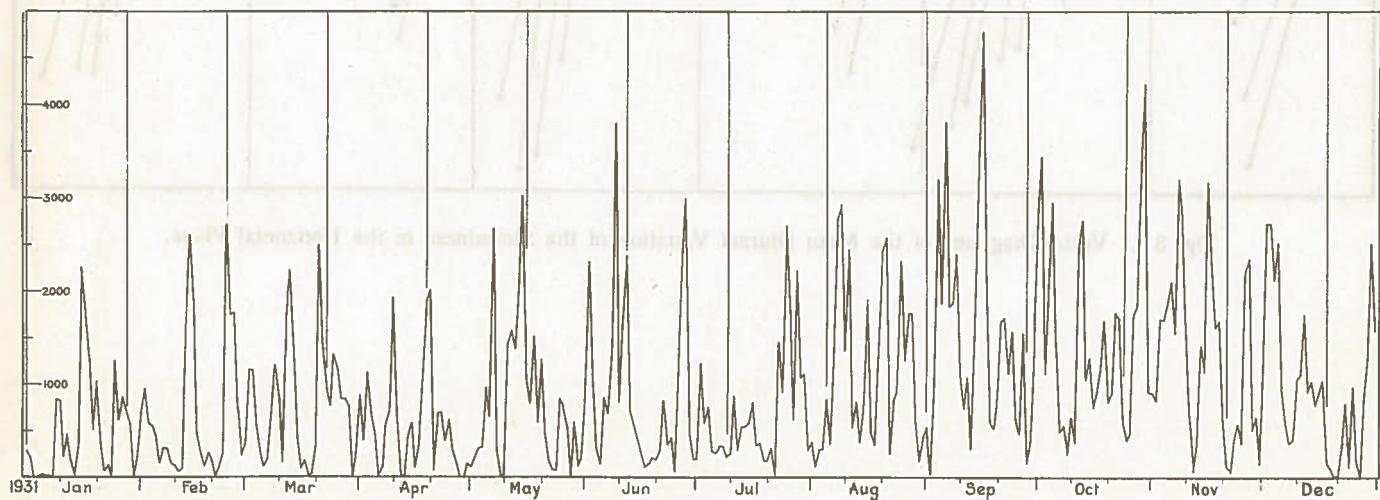


Fig. 2. The Variation of the Absolute Storminess for the Horizontal Intensity during the Year.

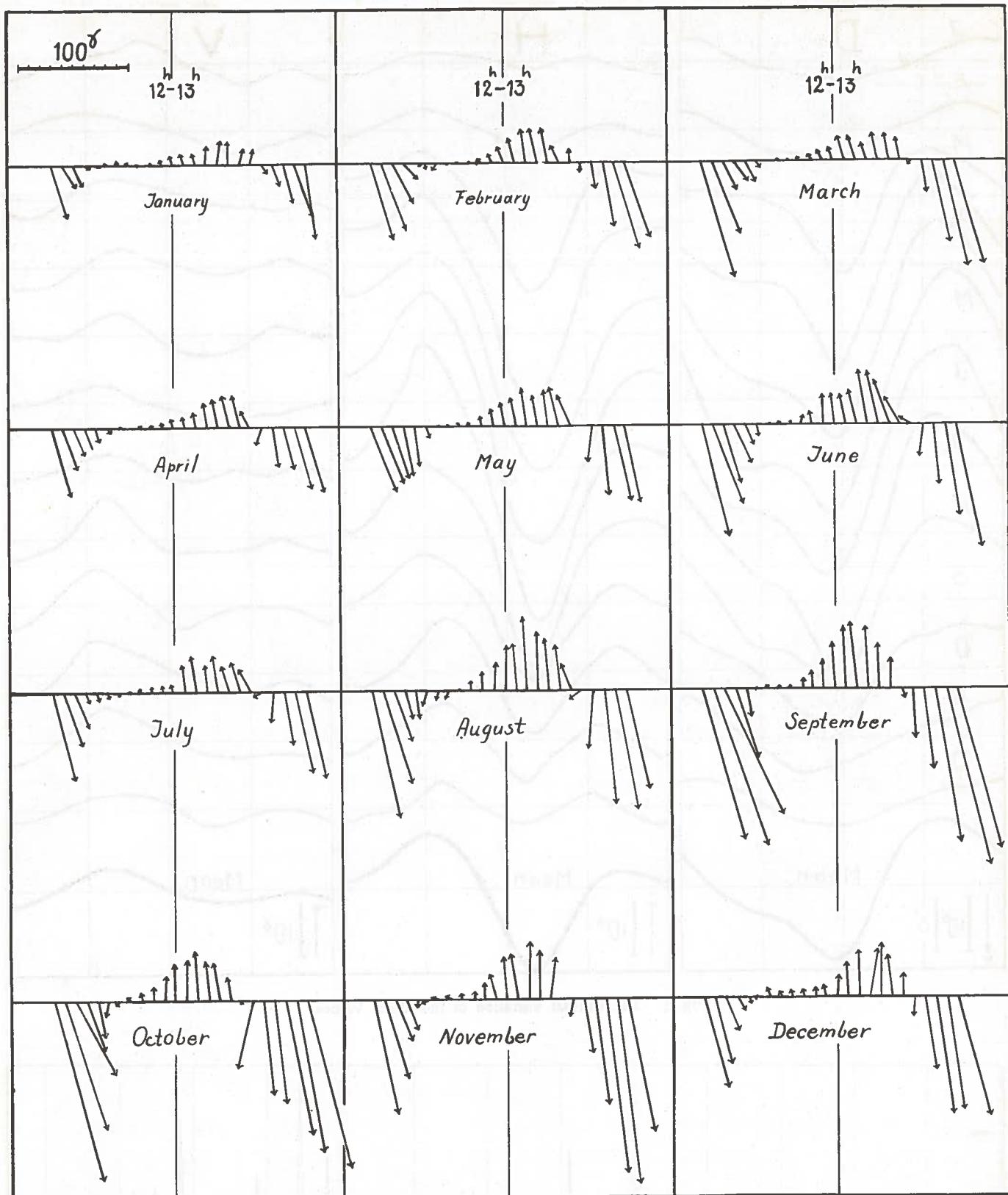


Fig. 3 a. Vector-Diagrams of the Mean Diurnal Variation of the Storminess in the Horizontal Plane.

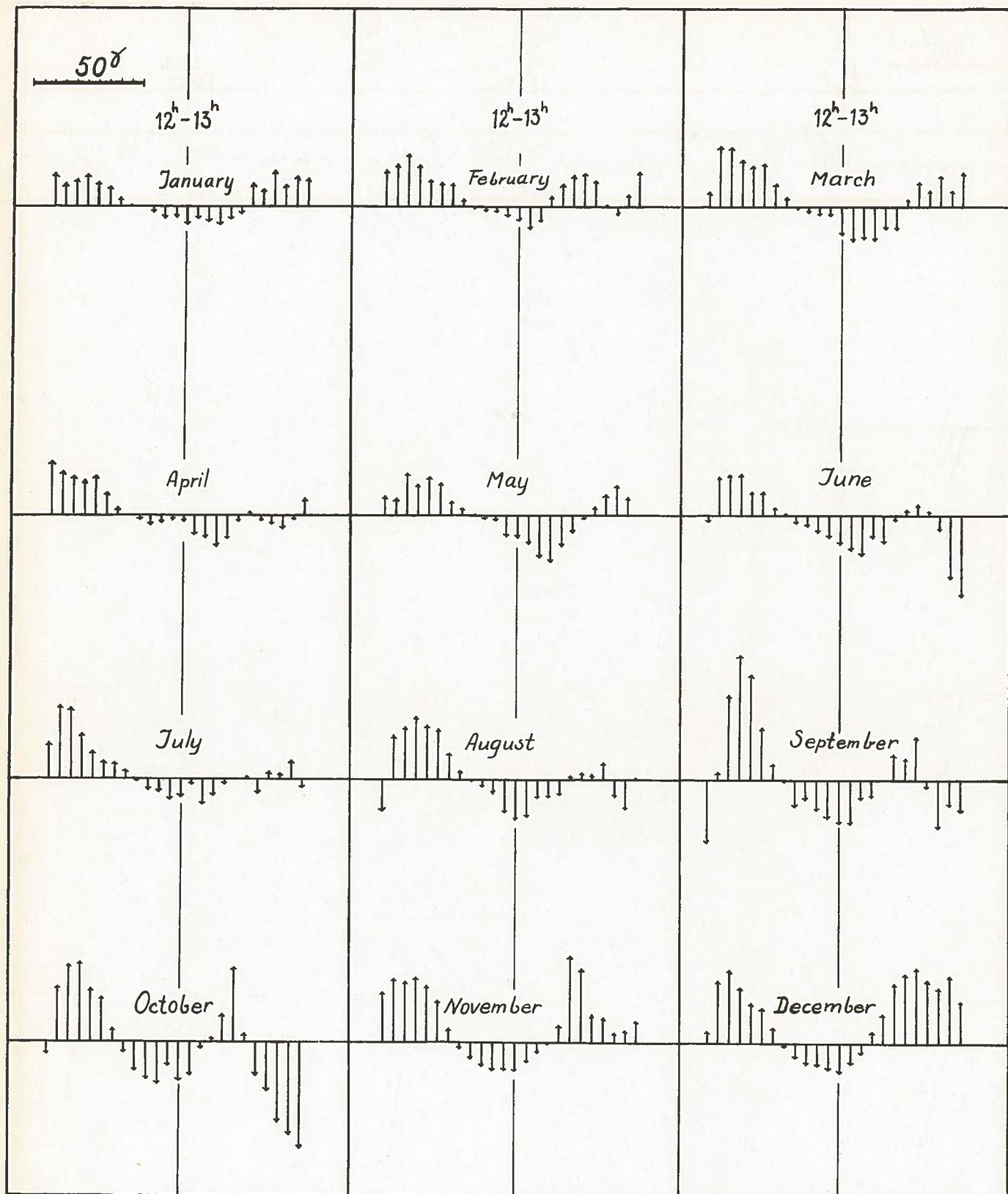


Fig. 3 b. The Vertical Component of the Mean Diurnal Variation of the Storminess.

