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B. TRUMPY and K. F. WASSERFALL:

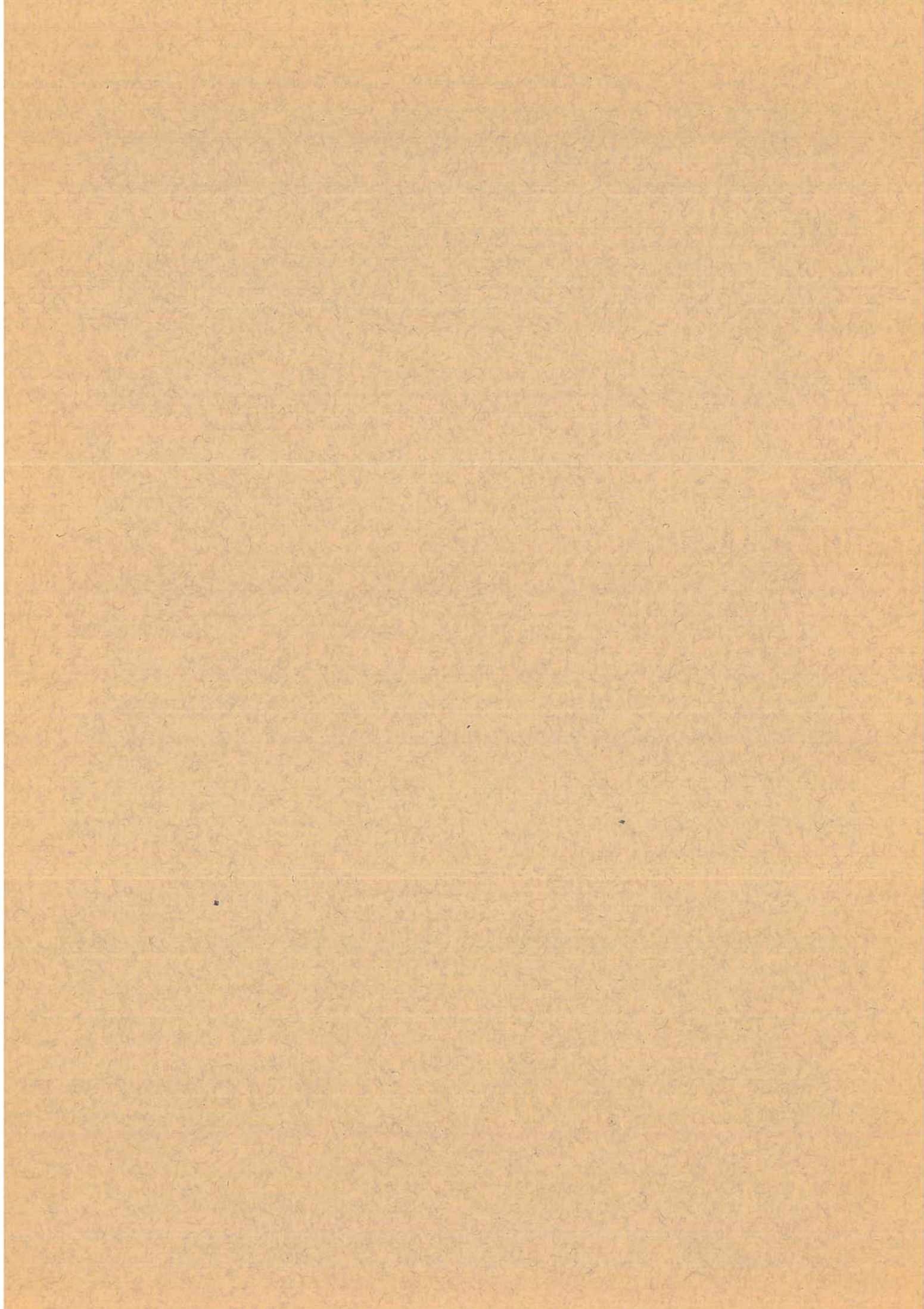
RESULTS FROM
THE MAGNETIC STATION AT DOMBÅS
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**RESULTS FROM
THE MAGNETIC STATION AT DOMBÅS
1939**

($\varphi = 62^{\circ} 04'.7$ N, $\lambda = 9^{\circ} 05'.8$ E)

BY

B. TRUMPY and K. F. WASSERFALL.

INTRODUCTION.

The Magnetic Station at Dombås commenced operations in 1916 and the material collected between the years 1916—38 has been worked up at *Det Magnetiske Byrå* in Bergen. Results for the interval 1916—33 were published in No. 9, those for 1934—36 in No. 13 and those for 1937—38 in No. 18 of the present series of publication. The most characteristic features in the variation were dealt with in No. 10 and No. 16 of the same series, besides in *Terrestrial Magnetism and Atmospheric Electricity*.¹

Before *Det Magnetiske Byrå* published the results from Dombås the manner in which to represent the tables was discussed and — owing to the large extension of the tables prepared, it seemed out of question to print hour values. It was, therefore, decided only to print monthly hour means for storminess, 7-day normals for quiet diurnal variation and daily data for positive and negative storminess, besides the sum of these two quantities. Regarding the leading principles for representing the results and the methods employed we refer to the first publication, No. 9. The Astronomer SIGURD EINBU is still in charge of the station, where the conditions are the same as before. WASSERFALL has now, as before, worked up the material.

The present paper contains resultant tables and graphs for the year 1939, arranged in more or less the same way as in the previous papers. The tables are arranged in chronological order and placed at the back of the paper in accordance with the list on page 1. On the same page there is a corresponding list for the graphs. In addition to this we shall, for the year 1939, give a more detailed representation of the results, consisting of two series of tables setting forth hourly mean values. The first series contains direct hourly values, while the second series gives corresponding hourly values for storminess. »*Explanation to the tables*» on page 8* will supply the necessary remarks regarding the various headings of the tables.

¹ K. F. Wasserfall: On the Variation of Magnetic Characternumbers at Dombås Observatory. *Terr. Magn.* Vol. 45, No. 1.

THE SCALE VALUES AND THE TEMPERATURE COEFFICIENTS
OF THE VARIOMETERS.

Deflection experiments were, as before, taken once a month. In Table I we give the results calculated by aid of the observed data, and in Table II we state the values adopted for the final reduction.

Table I.

Year	Month	ϵ_d	ϵ_h	ϵ_v
1939	Jan. 1	7.1	5.7	—
»	Feb. 1	7.1	5.6	6.2
»	Mar. 1	7.1	5.7	5.7
»	Apr. 14	7.1	5.7	5.5
»	May 1	7.1	5.7	5.9
»	Jun. 1	7.0	5.7	—
»	Jun. 23	7.1	5.7	6.2
»	Jul. 10	7.0	5.7	6.0
»	Sep. 7	7.0	5.6	—
»	Oct. 5	7.1	5.6	6.3
»	Nov. 4	7.0	5.7	5.8
»	Dec. 7	7.0	5.8	6.4
Mean . . . .	.....	7.1	5.7	6.0

Table II.

ω'	ϵ_d	ϵ_h	ϵ_v	$\bar{\epsilon}_h$	$\bar{\epsilon}_v$
1.73	7.1	5.7	6.0	5.38	5.96

ABSOLUTE OBSERVATIONS AND BASE LINE VALUES.

Regular observations of D, H and I were made from 4 to 10 times a month. The general observer is S. EINBU, while the control observations in August were taken by E. BARLINDHAUG.

As station instruments for Dombås we have taken over some old ones, originally used at Oslo Observatory. BARLINDHAUG made use of instruments which, some time beforehand, had been controlled at *Tromsø Observatory* and at *Rude Skov*, Copenhagen.

Base line values for the d-curve: For measurement of absolute declination we have a *Bamberg Declinometer*. The observations were taken on the wooden pier in the absolute house (cp. No. 9, page 4). The cairn on *Vesle fjellet* served as »Mark« at a distance of about 4 km from the station, with the azimuth: $159^\circ 08'.5$. The control observation in August was taken with *Tessdorff No. 2179*.

Tabulating the results for observed declination and the base line values we shall limit ourselves to state only monthly mean data, referring to a corresponding mean date. Observed D_w will be found in Table III, expressed in degrees and minutes, as well as in γ . In the following two columns we give the mean ordinate and the resulting base line value under the heading d and B_d , respectively. The number of observations actually taken during the year, has been added in the next column, then we have the instrument, where B stands for *Bamberg* and T for *Tessdorff*. Finally we state the initials of

the observers, where *S. E.* stand for SIGURD EINBU, *P. E.* for PER EINBU and *E. B.* for EINAR BARLINDHAUG. The table has been divided into five parts, where we see that $B_d = 1166$ represents the mean for the interval January 1st to July 10th, $B_d = 1148$ the mean for July 10th to 20th of the same month, $B_d = 1087$ the mean for the interval July 20th to November 26th and $B_d = 1094$ the mean for the rest of the year and where finally $B_d = 1087$ is the resulting base line value according to the control observation. The following base line values stated in Table IV have been adopted:

Table III.

Date	Observed		d	B_d	Number of Obs.	Instrum.	Observer
	D	D					
Jan. 25	7 20.8	1780	616	1164	4	B	S. E.
Feb. 16	19.7	1769	608	1161	7	»	»
Mar. 16	14.4*	1759	588	1171	4	»	»
Apr. 17	14.3	1757	593	1164	3	»	»
May 14	10.7	1747	578	1169	5	»	»
Jun 17	14.1	1756	591	1165	4	»	»
Jul. 6	10.6	1745	575	1170	1	»	»
Mean				1166			
Jul. 14	7 11.5	1748	607	1148	1	B	S. B.
Mean				1148			
Aug. 13	7 15.6	1760	677	1083	6	B	S. E.
Sept. 15	11.0	1747	659	1088	5	»	»
Oct. 16	10.9	1744	655	1089	3	»	»
Nov. 10	13.0	1753	665	1088	2	»	»
Mean				1087			
Dec. 18	12.2	1750	648	1102	4	»	»
Mean				1102			
Aug. 8	7 19.0	1777	687	1090	4	T	E. B.
Aug. 9	20.9	1784	700	1084	4	»	»
Mean				1087			

* New needle.

Table IV.

From	To	B_d
Jan. 1	Jul. 10	0.01165
Jul. 10	Jul. 20	1140
Jul. 20	Nov. 26	1085
Nov. 26	Jan. 1	1100

The exactness of the results for B_d may be judged by noting that the largest disagreement within each series amounts to 20γ — or $5'$.

Base line values for the h-curve: To start with, we used *Elliott No. 38* as station instrument for the observations of horizontal intensity. However, as the observations with this instrument did not seem to give base line values with satisfactorily high degree

of exactness, we have now purchased a torsion-instrument of *La Cour's* construction, designated *Q. H. M. No. 15*. The first observation taken with this instrument will be seen to be 1st of November 1939. In Table V we will find mean monthly data for observed H , the corresponding ordinate, h — corrected so that it refers to h_0 for 0°C . — and resulting base line values, B_{h_0} . In the three last columns we find data corresponding to those mentioned under Table III. The final base line values adopted are stated in Table VI.

Table V.

Year	Date	H	h_0	B_{h_0}	Number of Obs.	Instrum.	Observer
1939	Jan. 31	0.13922	350	0.13572	2	E. 38	S. E.
»	Feb. 23	916	350	566	6	»	»
»	Mar. 13	930	363	567	7	»	»
»	Apr. 23	905	336	569	4	»	»
»	May 24	990	410	580	6	»	»
»	Jun. 20	934	375	559	5	»	»
»	Jul. 19	968	391	577	8	»	»
»	Aug. 19	923	358	565	10	»	»
»	Sep. 9	867	293	574	1	»	»
Mean	.....			0.13570			
1939	Aug. 8	0.13911	344	0.13567	11	Q.H.M.63	E. B.
1939	Sep. 27	0.13910	324	0.13586	3	E. 38	S. E.
»	Oct. 10	885	306	579	6	»	»
»	Nov. 7	901	327	574	16	Q.H.M.15	P. E.
»	Dec. 13	907	332	575	5	»	S. E.
Mean	.....			0.13578			

Table VI.

From	To	B_h
July 10, 1938	September 25, 1939	0.13570
September 25, 1939	July 17, 1940	0.13580

The control observation of August the 8th resulted in $B_h = 0.13567$, which disagrees with -3γ for the first interval, $B_{h_0} = 0.13570$. This last value has, in agreement with the one used for the reduction of the previous year, been adopted for the final reduction of the first interval of 1939, while for the next interval we have chosen $B_{h_0} = 0.13580$.

Base line values for the v-curve: As station instrument for inclination we have used the *Dover Circle No. 10*, while control observations were made with the *Tesdorff No. 2179* — needle 26 and 27. Control observations at Tromsø Observatory indicated a correction of minus 7' and minus 2' for these two needles, respectively, while for the *Dover* needle we have used minus 3'. These corrections have already been applied in the results given in the tables.

Table VII.

From	To	Obs. I	H	V	v	B _v	corr.	B _{v0}	Number of obs.	Instrum.	Observ.	Adopt. B _{v0}
Jan. 1	Feb. 4	73 29.4	C. G. S. 0.13955	C. G. S. 0.47081	γ	C. G. S. 0.46866	γ + 150	C. G. S. 0.47016	2	D.No. 10	S. E.	G. C. S. 0.46960
Feb. 4	Mar. 27	34.2	917	7192	167	7025	+ 110	7135	4	»	»	7000
Mar. 27	Jun. 19	31.8	948	7180	272	6908	+ 190	7098	3	»	»	6920
Jun. 19	Sept. 18	36.4	882	7188	82	7106	+ 0	7106	6	»	»	7110
Sep. 18	Oct. 10	34.5	896	7139	168	6971	+ 100	7071	2	»	»	7010
Oct. 10	Oct. 25	39.5	892	7378	162	7281	+ 65	7281	2	»	»	7045
Oct. 25	Nov. 28	37.9	897	7315	190	7125	+ 80	7205	2	»	»	7030
Nov. 28	Dec. 7	29.3	904	6906	98	6808	+ 55	[6863]	1	»	»	7055
Dec. 7	Dec. 31	36.0	862	7100	122	6978	+ 115	7093	2	»	»	6995
Mean	.....	73 34.3	0.13906	0.47164	—	—	—	0.47012	—	D.No.10	S. E.	—
August 9	August 9	73 32.2	0.13937	0.47160	68	0.47092	± 0	0.47092	1	T.Ndle 27	E. B.	0.47110
August 9	August 9	32.7	936	7181	70	7111	»	7111	1	» 26	»	»
Mean	.....	73 32.5	0.13936	0.47174	69	0.47105	—	0.47105	—	Tesdorff	E. B.	0.47110

[] not included by the calculation of mean.

In Table VII we will find observed I , besides corresponding values for H , V and v . The 7th column contains the base line values, while the next column gives the corrections for abrupt changes in the photographic line of reference. Finally the corrected base line values are stated besides the adopted figures, actually used in the reduction.

Below in Table VII we give the results of the control observation of August 1939. These observations give as value for the base line: $B_v = 0.47105$ C. G. S. against $B_v = 0.47110$ actually used in the final reduction for the interval in question, while the mean figure under B_{i_0} comes out equal to 0.47012. As, in the inclination I' corresponds to 50° in V we cannot expect any closer agreement with the instrument we have at our disposal.

EXPLANATION TO THE TABLES.

As the tables correspond to those used in the three previous publications it should not be necessary to state anything more regarding this. We shall, however, remark that as in the present paper complete hour tables have also been published for vertical intensity, the earlier used separate tables for absolute storminess (PS , NS and AS) have been left out and likewise the separate tables for positive and negative data for storminess (MPS , MNS and $MPS - MNS$). These quantities are now to be found below in the tables on p. p. 4—26, while the PS , NS and AS — data are placed in vertical columns to the right in the same set of tables.

In the hour-tables for declination we find the daily mean figures expressed in γ under the first heading M to the right, while the following column, also headed M , give these means expressed in tenths of minutes. The next two columns, headed QM , give daily mean values for quiet means — first expressed in γ and then in tenths of minutes. The four horizontal rows below give the mean monthly diurnal variation M and QM , expressed in γ , besides analogous values expressed in tenths of minutes.

Finally we give, in the last column to the right, the figures for Range — the difference between the absolute highest and lowest value during the day — measured directly on the photograms.

The arrangement for the H-tables is exactly the same as in the D-tables, but that here we have only data expressed in γ . In the V-tables, however, we have again two set of mean values — one set for vertical intensity expressed in γ and one set for inclination, expressed in degrees and minutes.

The storminess tables for D contain mean daily figures for M , PS , NS and AS , besides character-numbers, which as before, are dependante on AS for declination. By the intensity tables for storminess we give only M , PS , NS and AS .

ERRATA.

In the summary table for declination (page 29) are the figures for *Quiet Range* wrongly tabulated with data for amplitude of the night-extremes in stead of those for the day-extremes. Below we give the correct data :

Jan.	Feb.	Mars	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Mean
12	20	36	57	58	63	64	70	67	46	25	17	44

TABLES

249 The 7-day normal for quiet diurnal variation for D, H, and V for 1939, besides corresponding monthly mean values 2-3

250 Direct hour values for D, H, and V and hourly data for storminess, besides daily values for positive, negative, and absolute storminess (P, N, and A) for D, H and V, 1939 3-38

251 Monthly means for direct quiet values for D, H and V, Range, Quot, and Mean Storminess for D, H and V, besides monthly mean data for the diurnal positive, negative and absolute storminess for D, H and V and characteristic numbers for the year 39

TABLES

GRAPHS

Fig. 1. Diurnal variation for quiet values for D, H and V for the four seasons in the year, expressed in % 29

Fig. 2. Monthly mean values for quiet diurnal variation for D, H and V for Combs for 1939 30

Fig. 3a. Monthly mean values for diurnal variation of storminess as vector diagrams for D, H and V for 1939 31

Fig. 3b. Monthly mean diurnal variation for storminess in vertical intensity for 1939 31

Fig. 4. Daily values for absolute storminess for D and H for 1939 32

TABLES

	Page
The 7-day normal for quiet diurnal variation for <i>D</i> , <i>H</i> , and <i>V</i> , for 1939, besides corresponding monthly mean values	3—5
Direct hour values for <i>D</i> , <i>H</i> , and <i>V</i> and hourly data for storminess, besides daily values for positive, negative, and absolute storminess (<i>PS</i> , <i>NS</i> , and <i>AS</i>) for <i>D</i> , <i>H</i> and <i>V</i> , 1939.	6—28
Monthly means for direct quiet values for <i>D</i> , <i>H</i> and <i>V</i> , Range, Quiet and Mean Storminess for <i>D</i> , <i>H</i> and <i>V</i> , besides monthly mean data for the diurnal positive, negative and absolute storminess for <i>D</i> , <i>H</i> and <i>V</i> , and character-numbers for the year 1939	29

GRAPHS

Fig. 1. Diurnal variation for quiet values for <i>D</i> , <i>H</i> and <i>V</i> for the four seasons in the year, expressed in γ	29
Fig. 2. Monthly mean values for quiet diurnal variation for <i>D</i> , <i>H</i> and <i>V</i> for Dombås for 1939	30
Fig. 3 a. Monthly mean values for diurnal variation of storminess as vector diagrams for <i>D</i> and <i>H</i> for 1939	31
Fig. 3 b. Monthly mean diurnal variation for storminess in vertical intensity for 1939	31
Fig. 4. Daily values for absolute storminess for <i>D</i> and <i>H</i> for 1939	32

Dombás.

Declination. Quiet Values (+W). Unit Gamma.

Gr. M. T.

Table of magnetic declination data for Dombás in 1939. Columns include month, day, and 25 quiet values (+W) in Gamma. Rows are grouped by month (JAN to DEC) and include an ANNUAL MEAN row at the bottom.

Dombás.

Horizontal Intensity. Quiet Values (+N). Unit Gamma.

Gr. M. T.

Table of horizontal intensity data for Dombás in 1939. Columns include month, day, 25 quiet values (+N) in Gamma, and six extreme values (Night and Day Min, Max, Amp). Rows are grouped by month (JAN to DEC) and include an ANNUAL MEAN row at the bottom.

Dombås.

Vertical Intensity. Quiet Values (+ Down). Unit Gamma.

Gr. M. T.

Table with columns for months (JAN to DEC), days (1-25), and metrics (MIN, MAX, AMPL). Includes an ANNUAL MEAN row at the bottom.

Dombås.

Declination. Quiet Values (+ W). Unit Gamma.

Gr. M. T.

Table with columns for months (JAN to DEC), days (1-23), and metrics (MIN, MAX, AMPL). Includes a MEAN row at the bottom.

Dombås.

Horizontal Intensity. Quiet Values (+ N). Unit Gamma.

Gr. M. T.

Table with columns for months (JAN to DEC), days (1-23), and metrics (MIN, MAX, AMPL). Includes a MEAN row at the bottom.

Dombås.

Vertical Intensity. Quiet Values (+ Down). Unit Gamma.

Gr. M. T.

Table with columns for months (JAN to DEC), days (1-23), and metrics (MIN, MAX, AMPL). Includes a MEAN row at the bottom.

Dombás. Declination. (+ W). Unit Gamma.

D = 1000 + TABULATED γ . (10^4 + TABULAR QUANTITIES EXPRESSED IN TENTHS OF MINUTES).

Gr. M. T.

JANUARY 1939

Table for January 1939 showing declination data for days 1-31. Columns include Day, 1-25, M, M, QM, QM, R. Values range from approximately 750 to 850.

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

FEBRUARY

Table for February showing declination data for days 1-29. Columns include Day, 1-25, M, M, QM, QM, R. Values range from approximately 750 to 850.

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

MARCH

Table for March showing declination data for days 1-31. Columns include Day, 1-25, M, M, QM, QM, R. Values range from approximately 750 to 850.

Table for January 1939. Columns: DAY, Declination (1-23), Storminess (+ W), Unit Gamma, Dombás (M, PS, NS, AS, CH), Gr. M. T. Rows include daily data and summary rows M, MPS, MNS.

Table for February. Columns: DAY, Declination (1-23), Storminess (+ W), Unit Gamma, Dombás (M, PS, NS, AS, CH), Gr. M. T. Rows include daily data and summary rows M, MPS, MNS.

Table for March. Columns: DAY, Declination (1-23), Storminess (+ W), Unit Gamma, Dombás (M, PS, NS, AS, CH), Gr. M. T. Rows include daily data and summary rows M, MPS, MNS.

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

Table for April 1939 showing declination data. Columns include Day (1-30), 24 hours (1-24), and 5 magnetic elements (M, M, QM, QM, R). Values are in tenths of minutes.

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

Table for May 1939 showing declination data. Columns include Day (1-31), 24 hours (1-24), and 5 magnetic elements (M, M, QM, QM, R). Values are in tenths of minutes.

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

Table for June 1939 showing declination data. Columns include Day (1-30), 24 hours (1-24), and 5 magnetic elements (M, M, QM, QM, R). Values are in tenths of minutes.

Declination. Storminess (+ W). Unit Gamma.

APRIL 1959		Declination. Storminess (+ W). Unit Gamma.																							Dombås.					Gr. M. T.	
DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	CH		
1	-73	-49	-64	-19	-3	36	33	36	28	36	16	7	-3	-2	7	-14	7	-15	-19	-31	-29	-40	-26	0	-7.6	206	389	595	1.7		
2	-25	-36	-33	-23	7	9	-4	-5	-3	0	-2	-4	0	-8	-4	10	13	-33	-20	-9	-17	-25	-44	-23	-11.6	39	318	357	1.3		
3	-16	-19	-14	-34	-31	-9	-8	-8	10	12	0	7	10	4	7	18	10	3	-39	-19	-9	-17	-35	-33	-8.9	77	291	368	1.3		
4	-53	-33	-25	7	-21	-13	0	5	9	11	6	-7	-13	-10	-9	3	6	10	13	-4	13	-17	-23	-14	-6.9	60	245	325	1.2		
5	-11	-2	-16	9	6	-12	-7	-7	-6	-5	0	9	8	15	15	3	-2	0	0	0	0	-7	-3	-2	-0.6	65	80	145	0.6		
6	-2	-3	0	-2	4	9	5	2	0	-5	-11	-8	-8	-8	-7	-8	-5	0	2	0	0	0	0	0	-1.8	24	67	91	0.2		
7	0	-3	0	-7	-7	-4	0	-8	-10	-10	0	-7	-5	0	4	8	7	-8	0	2	-4	-2	4	5	-1.8	30	74	104	0.3		
8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	42	32	74	0.2		
9	4	0	25	-9	-15	-12	-4	12	7	9	11	6	3	0	0	-2	-4	-5	-6	0	5	-12	16	2	2.5	128	69	197	0.8		
10	46	55	-29	-16	7	13	15	4	5	30	10	2	-12	-47	-20	-40	-26	-5	-5	-61	-2	4	15	90	1.2	294	265	559	1.7		
11	-20	-16	-11	0	0	0	0	2	14	15	7	-4	-5	-5	-6	-19	-10	-42	-39	-9	-39	16	-12	-6	-8.2	56	252	308	1.2		
12	5	24	15	30	14	31	31	25	18	9	18	0	-6	-17	-12	-8	3	2	9	-13	7	-10	2	0	8.0	248	56	304	1.2		
13	24	18	-5	8	-3	8	12	17	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3.5	125	42	167	0.7		
14	5	17	18	13	2	-3	13	0	0	6	13	11	11	5	2	5	3	0	6	2	0	-10	-15	-9	4.0	132	37	169	0.7		
15	3	5	6	6	5	4	2	0	-3	3	-3	-7	-9	-10	-12	-16	-7	-3	-2	-15	0	6	8	-1.7	48	69	137	0.5			
16	6	4	2	0	2	-5	0	0	-3	-4	-6	-5	-5	-9	-8	-6	2	5	6	2	0	9	8	6	0.1	54	51	105	0.3		
17	9	0	-18	0	-88	-75	-112	-39	-20	-20	6	-4	10	25	56	127	60	37	49	52	249	-20	-11	-6	11.9	680	393	1073	2.0		
18	-5	-3	-5	-7	-11	-12	-18	-30	-6	15	0	-2	-27	-14	-8	11	33	5	19	-10	-9	0	21	-63	-5.7	99	235	334	1.3		
19	-20	-64	-33	-19	-4	6	26	8	-6	-4	3	14	15	2	-31	0	21	39	18	15	-11	-31	-13	-46	-4.8	167	282	449	1.5		
20	-15	-15	18	-21	16	13	17	4	0	15	13	13	0	-9	-13	-10	-8	9	-2	-15	-26	-30	-7	-32	-3.5	118	203	321	1.2		
21	-28	-12	17	-6	-4	35	36	14	0	5	10	0	-7	-7	-13	-16	7	-8	0	9	-7	0	2	-24	0.1	135	132	267	1.1		
22	-13	-27	-30	-3	-7	6	3	6	-4	2	4	-8	16	14	18	27	36	36	-9	21	6	4	-25	-35	3.2	218	142	360	1.1		
23	16	3	-12	-9	-22	32	31	0	-8	-10	-6	-10	-17	-24	36	6	43	14	14	24	17	15	40	7.4	327	150	477	1.6			
24	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	117	114	231	1.0		
25	-52	-105	13	-4	-20	-24	-18	-17	17	9	-4	-31	-29	0	-2	-30	-31	4	-4	9	-5	2	-23	-34	-15.8	54	433	487	1.6		
26	3	7	20	13	0	-2	-9	-7	-4	0	0	0	6	6	4	6	3	0	0	0	3	0	0	8	5	2.6	84	21	105	0.3	
27	-2	-2	0	2	2	-2	-4	-5	-3	5	8	11	10	6	0	7	4	-7	-4	0	5	4	-37	-84	-3.4	66	148	214	0.9		
28	-53	-13	-10	-20	-29	-7	6	4	0	0	0	-2	-4	-3	-7	-7	7	6	2	-18	-17	-17	-24	13	-8.0	38	231	269	1.1		
29	-6	-8	-10	5	0	-6	-8	-16	2	-13	-3	0	-2	-11	-9	6	6	3	0	7	-6	0	12	3	-2.2	46	98	144	0.6		
30	4	4	-3	-3	0	3	4	2	-8	0	-3	0	-8	0	-8	5	6	14	17	-14	3	2	4	2	4	1.4	74	40	114	0.3	
M	-8	-10	-7	-4	-4	1	1	-1	1	3	3	-1	-2	-3	-2	3	6	4	0	-2	3	-5	-5	-9	-2.1	129	166	295	1.1		
MPS	5	4	4	3	7	8	5	4	6	4	3	3	4	9	9	8	6	6	5	10	3	5	6	6							
MNS	13	14	11	7	7	6	7	6	3	3	1	4	5	6	6	6	6	3	4	6	7	7	8	10	15						

Declination. Storminess (+ W). Unit Gamma.

MAY		Declination. Storminess (+ W). Unit Gamma.																							Dombås.					Gr. M. T.	
DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	CH		
1	7	5	13	0	-2	-15	-5	5	0	7	26	10	-34	-16	34	75	68	68	41	69	0	-7	-36	14.4	444	99	543	1.7			
2	50	-179	-107	-48	-18	-7	62	27	2	-7	-9	-15	-22	-25	-11	-22	0	0	-5	-8	20	7	-21	-16.4	161	554	715	1.8			
3	-17	-11	11	-13	0	-15	-5	4	18	27	22	-2	-8	-16	-15	-20	-17	-6	0	0	-16	5	11	22	-2.1	110	161	271	1.1		
4	-12	-3	-5	-11	-13	-7	0	-2	-4	2	5	2	-8	-16	-15	-20	-17	-6	0	0	-16	5	11	22	-2.1	110	161	271	1.1		
5	0	0	3	9	6	15	26	10	-7	0	-5	0	4	2	11	8	2	7	10	3	16	35	16	-7	6.9	185	19	204	0.9		
6	-7	-22	-23	-27	-24	-23	-20	-6	-8	-7	-4	13	11	3	-3	36	19	36	10	0	-7	-7	-80	-62	-8.4	128	330	458	1.5		
7	-50	26	-87	-38	35	36	-23	11	3	-4	-8	0	-4	-12	-31	-46	-20	-11	3	-12	-21	-13	-18	-8	-11.8	118	402	520	1.6		
8	62	18	-36	-24	-29	-15	11	22	13	-7	-6	-10	-8	-14	53	-13	7	0	-22	4	-3	0	-7	0	-0.2	190	194	384	1.4		
9	-30	-16	-4	35	-7	0	6	3	0	3	-12	-18	-14	-9	-12	-9	-11	-18	5	9	0	0	-6	-2	-4.4	61	167	228	0.9		
10	-4	3	0	0	-2	2	5	2	3	-2	0	0	-2	0	10	14	-10	0	3	2	0	0	0	0	1.0	44	20	64	0.1		
11	-2	-9	-11	-10	-3	4	2	-2	2	-3	0	-4	-11	-11	-9	-9	-5	-3	-2	-3	-2	0	0	5	-3.6	13	99	112	0.4		
12	10	-2	-4	-5	0	7	8	8	2	0	-4	-4	-2	-5	0	3	4	3	0	8	9	6	8	5	2.3	61	26	107	0.4		
13	2	-1	0	-2	0	7	8	21	7	4	-7	-7	-5	3	6	10	10	7	10	0	-4	0	0	-2	2.7	110	45	155	0.6		
14	-5	4	4	5	4	14	15	11	7	5	6	-4	12	6	16	16	11	9	9	7	6	6	6	8.0	193	0	193	0.8			
15	-3	-3	-3	-10	-6	8	9	-4	-4	8	12	13	10	21	17	15	7	9	13	10	0	-4	6	22	5.9	178	37	215	0.9		
16	9	-5	-27	11	0	18	19	-9	30	25	10	0	-2	-8	-10	-6	-3	0	4	0	0	7	0	4	-2.7	136	70	206	0.9		
17	0	-2	-6	0	-9	-11	-3	5	4	-3	-4	0	-4	-4	-2	-3	0	3	-10	-19	7	9	9	7	-1.3	46	78	124	0.5		
18	-3	5	10	0	-24	0	0	-6	8	16	17	19	18	18	13	6	7	7	11	10	10	8	-12	-38	4.2	183	63	266	1.1		
19	-17	-30	-21	-33	5	10	18	4	0	6	11	8	9	8	9	13	12	6	-16	-10	0	-7	-35	-13	-2.6	119	182	301	1.2		
20	-17	-34	-53	-11	32	27	3	0	0	-5	-7	-7	-4	0	8	7	-11	-3	9	4	-5	0	3	-15	-3.4	91	172	263	1.1		
21	-32	-18	-14	-19	-19	-7	-3	-9	-4	-20	0	7	28	18	18	11	27	20	8	0	-3	3	-16	-13	-1.5	140	177	317	1.2		
22	20	42	-25	-6	-17	9	0	-18	-23	-5	-7	4	5	0	9	0	2	9	2	0	4	13	0	-103	-3.5	119	204	323	1.2		
23	-26	-16	-37	-39	-28	-23	-3	-13	-10	0	0	-10	-18	-9	-2	3	-4	-4	-8	-6	-4	-13	5	-10	-14	4	263	277			

JULY 1939

DAY	Declination. Storminess (+ W). Unit Gamma.																							Dombås.				Gr. M. T.			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	CH			
1	8	0	-5	2	5	11	11	18	12	9	11	12	5	-9	0	-10	-10	-5	4	4	2	3	10	12	4.1	137	39	176	0.7		
2	7	10	-16	-12	16	22	24	0	-3	4	6	-2	-11	-4	-3	-4	-6	-8	-12	4	9	10	5	5	1.4	120	85	205	0.9		
3	13	2	4	38	-6	4	20	15	25	26	25	6	-45	-87	19	46	55	35	4	35	18	15	9	30	14.4	463	118	561	1.7		
4	20	-10	-16	-21	-10	-5	-9	-9	0	-9	-8	-14	-13	-8	21	32	11	35	22	27	0	0	-23	-19	0.1	175	174	350	1.3		
5	-25	-37	10	-7	22	90	88	42	4	-19	-39	-22	-18	0	49	21	56	85	68	54	16	-11	-6	-6	17.2	603	190	753	1.9		
6	-37	-74	28	20	16	24	29	14	-4	-25	-27	-18	-12	-3	4	2	-6	-8	-7	-4	0	-2	11	7	3.0	155	227	382	1.4		
7	-3	0	7	5	4	2	0	-6	11	-7	-8	3	0	-9	0	-3	0	-4	10	12	5	4	7	7	-1.0	68	32	100	0.4		
8	9	10	6	0	0	9	-2	-6	-7	-11	-6	5	0	-7	0	-3	0	-3	5	4	10	0	0	2	1.1	105	78	153	0.8		
9	-9	10	9	-13	-8	-8	-10	-10	-11	-5	0	3	5	11	7	0	0	-6	-3	0	0	0	0	-4	-2.1	42	93	135	0.5		
10	3	9	9	-8	-16	-16	-21	-7	-6	-10	-9	-9	-8	-10	-9	0	7	5	5	0	6	6	0	-5	-7	-3.8	50	141	191	0.8	
11	-9	-6	-2	-2	-4	-7	-11	-12	-6	2	8	17	28	3	0	8	15	8	-6	-2	6	-2	-10	-8	-0.7	87	103	190	0.8		
12	-4	-5	-3	-7	-7	-9	0	5	2	0	2	7	0	14	3	13	11	-2	5	0	2	4	-8	0	0.7	66	50	116	0.4		
13	-2	0	0	7	13	9	8	6	8	9	11	13	10	0	-10	-19	-11	-11	-12	-11	-2	4	-8	0	1.1	105	78	153	0.8		
14	5	17	4	-6	13	35	46	63	44	14	-2	8	0	10	-4	-16	-7	-2	-3	0	-48	-49	-56	0	2.3	259	203	462	1.5		
15	-2	2	-11	-5	-6	-4	-5	-5	4	2	-3	-2	-6	0	0	0	4	7	6	4	0	0	9	-26	-2.2	38	91	129	0.5		
16	-12	-11	0	15	-9	-11	-5	0	10	11	7	18	-2	-7	6	13	12	21	19	12	-61	-32	-11	15	-0.2	157	181	318	1.2		
17	7	-19	-45	6	2	-9	10	36	18	9	-4	6	-3	-9	-4	-13	3	7	0	-5	-2	3	0	0	-0.7	111	126	239	1.0		
18	5	28	-4	-10	2	0	-4	0	-4	0	-3	4	10	12	16	19	17	12	11	24	14	29	-21	-26	1.4	89	54	142	0.8		
19	2	15	18	3	4	6	14	8	0	-3	4	10	12	16	19	17	12	11	24	14	29	-21	-26	8.6	254	47	301	1.2			
20	30	-43	-45	-55	-48	10	54	20	16	37	-13	-16	-38	-63	-45	-11	12	-12	11	6	-5	17	-2	-7	-7.9	213	403	616	1.7		
21	-12	-13	-3	-3	-9	-14	-9	-6	-4	-2	-25	-26	-53	-29	37	-8	-13	0	18	20	20	18	7	7	-2.7	149	214	363	1.3		
22	10	-21	23	19	18	24	35	20	9	3	4	7	-3	-5	-3	0	5	6	5	0	0	-12	35	9	9.3	247	23	330	1.3		
23	15	21	-30	-22	-18	-9	-8	0	-4	-8	-14	-10	-7	-14	-7	-4	-4	0	0	0	-3	0	0	0	-7.8	19	201	220	0.9		
24	4	4	-3	-5	-8	-7	-4	0	5	11	10	9	0	3	0	3	0	-2	4	2	-2	0	0	0	0.6	55	40	95	0.3		
25	-7	-5	-20	-12	-11	9	19	38	23	3	-6	-18	-18	-22	-19	-20	-9	2	3	2	-3	-3	-2	0	-4.2	99	200	299	1.2		
26	-5	-6	-4	-2	17	83	74	38	39	56	21	-3	-2	-6	-6	4	-16	-18	5	9	4	0	0	0	11.9	354	67	421	1.5		
27	-5	14	8	6	9	7	8	6	6	7	6	3	-9	-14	-20	-15	-11	-10	5	0	0	-16	-43	-20	-3.5	86	169	255	1.0		
28	-19	-7	-10	-6	-3	7	32	26	10	9	9	-8	-7	-10	-9	-7	-8	-5	-2	-15	-20	-5	0	0	-5.9	10	152	162	0.7		
29	-9	-12	-10	-2	5	14	12	3	4	2	4	5	2	4	5	2	-13	0	0	0	2	0	0	0	4.3	116	13	129	0.6		
30	6	15	11	7	14	12	3	4	6	9	11	12	7	0	0	0	2	0	0	0	-2	0	-9	4	3.2	94	18	112	0.4		
31	0	-4	2	-3	3	12	4	8	10	6	9	11	12	7	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0.0		
M	-1	-4	-3	-3	0	9	13	10	6	3	-1	-1	-5	-8	1	2	3	4	5	5	0	0	-4	-2	1.5	148	118	266	1.1		
MPS	4	5	4	4	5	12	16	12	8	7	4	4	3	3	6	6	7	8	7	7	3	4	3	3							
MNS	5	9	7	7	6	3	3	2	2	4	5	5	8	11	5	4	4	4	2	2	3	4	7	7							

AUGUST

DAY	Declination. Storminess (+ W). Unit Gamma.																							Dombås.				Gr. M. T.			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS	CH			
1	5	-11	-10	-2	0	6	7	3	10	13	14	15	11	9	7	9	6	-3	0	0	2	2	-3	0	3.7	119	29	148	0.6		
2	0	0	0	0	0	-4	-3	0	-2	4	4	2	3	0	6	6	6	-4	-4	-2	-2	0	0	0	0.6	37	23	60	0.1		
3	0	0	-2	0	-4	-2	0	0	0	0	4	0	-5	0	0	-4	0	0	3	7	8	4	10	15	1.3	48	17	65	0.1		
4	14	13	11	12	0	2	3	4	4	4	0	-3	-3	-2	-2	-3	-9	-3	0	8	10	10	4	8	3.2	105	27	132	0.5		
5	7	2	-3	-5	-2	2	4	4	4	3	-3	0	-3	-2	-3	0	3	4	5	6	8	0	-4	1	1.1	51	25	76	0.2		
6	0	-4	0	8	5	0	-4	-9	0	0	8	10	8	6	6	5	7	5	5	14	5	8	-4	-4	3.1	100	25	125	0.5		
7	0	0	3	-2	0	2	3	0	-2	0	0	5	5	9	10	6	0	-5	-6	-8	-8	-6	-5	0	0.4	31	42	83	0.1		
8	-2	0	5	6	0	0	-2	0	0	-2	0	0	-6	-7	-3	0	0	-2	4	0	2	4	5	-1.5	19	54	73	0.2			
9	0	0	2	0	-2	-3	0	0	-2	0	0	4	-12	5	18	11	8	10	7	5	15	16	2	12	17	4.8	140	25	165	0.7	
10	0	0	0	-2	0	0	-3	0	5	3	5	11	12	8	3	0	-4	7	19	32	25	12	6	24	-11	7.6	214	32	246	1.0	
11	13	10	0	-9	-8	0	3	3	8	11	12	8	5	-5	-19	-18	-37	-30	-26	-14	-24	-42	-66	50	-14.6	116	467	585	1.7		
12	0	14	0	-1	7	8	-4	27	-37	4	5	-5	-19	-18	-37	-30	-26	-14	-24	-42	-66	50	50	-4.9	101	219	320	1.2			
13	32	37	-17	-19	-17	-7	0	-9	-5	-3	-12	-20	-21	-22	-22	-19	-22	0	-2	-2	-6	7	9	23							
14	11	26	34	14	12	17	8	7																							
15																															
16	-8	-3	0	3	17	22	19	23	17	3	-2	-6	-17	-35	-52	5	-11	-3	10	19	19	21	36	12	3.7	225	137	363	1.5		
17	-23	-28	-80	-45	-9	0	-4	12	29	29	19	6	-4	-9	-13	-24	-22	-12	-5	4	0	-2	2	3	-0.3	104	200	384	1.4		
18	-4	-7	-3	2	0	4	-8	9	13	16	15	11	0	-4	-12	-14	-31	-26	-6	-4	0	-2	2	3	-0.5	104	115	219	0.9		
19	4	9	-2	-9	-14	-13	-12	-15	-13	-7	5	10	17	-20	-23	-20	5	0	8	5	0	-5	-2	18	1.2	126	97	223	0.9		
20	-7	-6	-8	0	0	0	0	0	0	0	-2	-4	-9	-11	-8	-7	-2	-2	0	-2	0	0	0	0	-2.7	2	67	69	0.1		
21	2	2	0	-4	0	-4	0	-2	0	2	11	20	19	13	7	-4	5	8	5	3	0	4	-2	0	27	4.8	128	13	141	0.6	
22	-7	-5	0	-9	-2	0	-8	-2	-16	12	6	-15	-105	-185	-116	-33	128	181	33	-45	64	94	72	-83	-8.4	590	792	1382	2.0		
23	-9	-10	-6	-4	4	63	27	57	11	-57	-48	-45	-42	-56	-46	-12	7	-13	-31	-40	-28	-13	-13	6	-19.2	201	682	863	1.9		
24	23</																														

Dombås. Declination. (+ W). Unit Gamma.

Table for July 1939 showing declination data for Dombås. Columns include Day (1-31), D (1000 + tabulated gamma), and various declination values (M, M, QM, QM, R).

Dombås. Declination. (+ W). Unit Gamma.

Table for August 1939 showing declination data for Dombås. Columns include Day (1-31), D (1000 + tabulated gamma), and various declination values (M, M, QM, QM, R).

Dombås. Declination. (+ W). Unit Gamma.

Table for September 1939 showing declination data for Dombås. Columns include Day (1-30), D (1000 + tabulated gamma), and various declination values (M, M, QM, QM, R).

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

Table for October 1939 showing declination data. Columns include DAY (1-31), M, QM, and R. Values range from approximately 700 to 900.

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

Table for November showing declination data. Columns include DAY (1-31), M, QM, and R. Values range from approximately 700 to 900.

Dombás. Declination. (+ W). Unit Gamma.

Gr. M. T.

Table for December showing declination data. Columns include DAY (1-31), M, QM, and R. Values range from approximately 700 to 900.

OCTOBER 1939

Declination. Storminess (+ W). Unit Gamma.

Dombås.

Gr. M. T.

Table for October 1939 with columns for Day, Declination (1-23), Storminess (+W), Unit Gamma, Dombås (M, PS, NS, AS, CH), and Gr. M. T. (M, PS, NS, AS, CH). Rows include daily data and summary rows for M, PS, NS, AS, CH, MPS, and MNS.

NOVEMBER

Declination. Storminess (+ W). Unit Gamma.

Dombås.

Gr. M. T.

Table for November with columns for Day, Declination (1-23), Storminess (+W), Unit Gamma, Dombås (M, PS, NS, AS, CH), and Gr. M. T. (M, PS, NS, AS, CH). Rows include daily data and summary rows for M, PS, NS, AS, CH, MPS, and MNS.

DECEMBER

Declination. Storminess (+ W). Unit Gamma.

Dombås.

Gr. M. T.

Table for December with columns for Day, Declination (1-23), Storminess (+W), Unit Gamma, Dombås (M, PS, NS, AS, CH), and Gr. M. T. (M, PS, NS, AS, CH). Rows include daily data and summary rows for M, PS, NS, AS, CH, MPS, and MNS.

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

Gr. M. T.

JANUARY 1939

H = 0,13500 + TABULATED QUANTITIES EXPRESSED IN GAMMA.

Table with 24 columns (DAY 1-24) and 24 rows (M, QM, R). Contains magnetic intensity data for January 1939.

FEBRUARY

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

Gr. M. T.

Table with 24 columns (DAY 1-24) and 24 rows (M, QM, R). Contains magnetic intensity data for February 1939.

MARCH

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

Gr. M. T.

Table with 24 columns (DAY 1-24) and 24 rows (M, QM, R). Contains magnetic intensity data for March 1939.

Horizontal Intensity. Storminess (+ N). Unit Gamma. Dombås. Gr. M. T.

DAY	Horizontal Intensity																							Storminess (+ N)				Unit Gamma			
	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	4	6	8	7	7	3	2	0	5	5	7	8	12	8	0	-6	2	3	0	2	2	0	2	4	3.7	94	6	100		
2	8	7	6	7	7	10	11	10	9	10	12	4	4	3	0	4	2	0	0	2	6	3	2	-4	-4	5.2	130	4	134		
3	-3	-3	0	0	0	3	0	-2	0	-4	-6	0	0	2	-3	-5	-7	-11	-7	-6	-5	-4	-3	-3	-2	-2.7	8	72	80		
4	0	0	-2	0	0	0	0	-2	-5	-7	-9	-8	-4	-2	-3	-5	-11	-6	-7	-6	-5	0	4	-3	0	-3.4	4	65	89		
5	3	7	9	10	0	-5	2	6	3	3	5	11	5	-4	0	3	2	-7	-8	-2	0	4	4	-10	-1.7	78	37	115			
6	-5	-6	0	-3	-8	-9	-10	-13	-10	-9	-12	-9	-4	-6	0	-5	-6	-12	-8	-4	2	-10	-8	-8	-6.9	2	167	169			
7	-7	-5	-8	-3	-7	-6	-4	-2	-4	-2	-7	0	0	-2	-4	-3	-8	-10	-6	-11	-9	-10	-5	-18	-4.9	18	135	153			
8	-7	-4	-5	-2	-3	-7	-8	-4	-5	-10	-8	-4	0	0	0	-3	-6	-10	-6	-11	-9	-10	-5	-18	-4.9	18	135	153			
9	-4	-6	-3	-6	4	0	-17	-22	-13	-11	-17	-14	-2	-3	-7	-4	0	0	0	0	-3	22	-7	-9	-5.2	31	155	186			
10	-3	-2	-6	-4	8	-2	2	0	-6	-4	-5	0	-15	-13	-6	-7	-4	2	2	0	0	8	-4	-9	-3.1	20	94	114			
11	-6	2	0	3	0	-5	-5	-6	-9	-9	-13	-6	-2	2	-6	-10	-5	-2	22	-5	-4	-5	-5	-4	-4.0	29	126	155			
12	0	4	0	0	2	-3	-4	0	0	2	3	4	15	12	2	4	9	10	8	8	9	10	7	7	4.7	79	7	126			
13	7	6	5	3	0	-2	-3	-5	-7	-5	2	5	8	6	4	10	0	-2	0	3	2	0	11	11	2.0	112	24	95			
14	-10	6	5	4	0	0	7	0	2	4	4	-2	3	-13	-9	-11	-3	-2	0	-4	-5	-2	-12	-10	-2.1	35	90	129			
15	0	0	0	-2	-5	7	4	5	0	-8	3	-4	-8	-8	-7	0	6	7	0	-2	0	0	0	0	-0.7	32	48	80			
16	-24	0	2	2	2	2	4	5	2	0	0	2	0	3	0	0	-3	0	-6	-6	-15	-7	-10	-10	-2.0	24	71	95			
17	-9	-20	-53	-23	-4	-10	-11	-10	-10	-2	0	-15	-20	-8	-12	-11	-9	-6	-3	-9	-10	-12	-5	-8	-0.1	10	269	279			
18	-6	-4	-3	-2	0	0	-9	-22	-13	0	0	2	7	11	9	3	0	2	0	2	4	3	-4	-5	-11	1.8	63	20	63		
19	-4	-4	-3	-2	0	0	0	0	2	7	11	9	3	0	0	2	0	2	4	3	-4	5	-5	-11	1.8	63	20	63			
20	-6	-22	15	6	17	7	10	12	9	7	0	2	0	3	0	3	2	0	-2	-3	-2	-3	-4	-4	2.1	96	45	140			
21	0	-17	-13	-5	0	-2	0	0	3	-6	-9	-13	-10	-11	-4	-16	-11	-8	-8	-18	-11	-11	-9	-6	-7.7	3	188	191			
22	-4	-4	-3	-2	-2	0	0	2	2	3	-2	-6	-9	-9	-8	-2	-2	-6	-13	-11	-12	-16	-5	-20	-5.2	7	132	139			
23	-20	-15	-10	-14	-8	-14	-10	-3	-3	-10	-5	-2	7	-20	-13	-14	-9	-5	-8	-9	-9	0	0	0	-7.5	18	197	213			
24	2	0	4	4	7	2	0	0	-4	-4	-6	-5	-5	-6	-5	-4	-7	-6	-2	0	-3	-6	-9	-9	-2.1	25	78	103			
25	-9	0	4	4	7	2	0	0	-4	-4	-6	-4	-6	0	-3	-2	0	-5	-3	-2	0	3	4	6	-2.5	30	58	88			
26	3	3	3	6	7	7	7	7	3	0	3	3	4	0	5	2	0	0	4	5	6	8	8	7	4.2	101	0	101			
27	5	4	7	7	8	8	6	6	0	-2	0	4	8	9	10	8	8	8	9	9	12	14	16	16	7.7	186	2	188			
28	18	12	12	13	15	16	18	18	22	24	24	23	17	15	17	17	14	13	4	0	13	11	12	12	14.9	357	0	357			
29	-4	-14	0	0	4	9	7	4	0	2	0	0	2	0	0	-4	0	2	3	4	5	-3	-2	-6	0.3	40	33	73			
30	-4	-4	0	0	2	3	-2	-2	-4	-5	-7	-8	-8	-8	-2	-6	-3	-8	-3	3	2	0	0	2	-2.3	10	85	75			
31	2	-4	3	2	4	3	-2	-3	-2	-13	-17	-15	-4	-12	-11	-12	-10	-7	-4	0	3	4	2	2	-3.4	29	110	139			
M	-2	-2	0	1	2	1	0	0	-1	-2	-2	-2	-1	-1	-3	-3	-3	-1	-2	-3	0	1	-1	-2	-1.3	85	61	136			
MPS	2	2	3	3	3	3	3	3	2	2	2	2	2	2	1	2	1	2	1	1	3	4	2	3							
MNS	4	4	5	2	1	2	3	3	3	4	4	4	4	4	4	5	4	3	4	5	4	3	3	3							

Horizontal Intensity. Storminess (+ N). Unit Gamma. Dombås. L. M. T.

DAY	Horizontal Intensity																							Storminess (+ N)				Unit Gamma			
	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	5	5	3	0	-4	-6	-5	-4	5	8	12	11	14	-3	-11	-11	-2	2	12	67	21	14	-43	-45	1.9	179	134	313			
2	-138	-176	-74	-36	-23	-26	-25	-23	-9	-8	-13	-12	-10	-5	-10	-18	-7	31	8	-29	-3	9	21	-9	-24.4	69	654	723			
3	-9	-21	-21	-18	-23	-17	-6	-3	4	4	0	3	8	5	13	9	10	10	7	13	14	-4	-8	-8	-6.1	104	132	236			
4	-9	-21	-21	-18	-23	-17	-6	-3	4	4	0	3	8	5	13	9	10	10	7	13	14	-4	-8	-8	-6.1	104	132	236			
5	-3	-3	0	-6	-9	-11	-13	-7	-3	10	0	4	6	2	0	-5	0	0	8	17	28	14	-2	-2	1.2	89	60	149			
6	-20	-28	-16	2	-2	-21	0	7	14	-10	13	37	27	-26	78	218	297	132	-67	-62	-62	-87	-96	-96	13.7	827	497	1324			
7	-19	-88	-95	-83	-65	-41	-33	-20	2	0	-9	-10	13	14	18	21	27	15	18	-4	0	-10	-11	-11	-1.4	54	67	141			
8	-7	0	-3	-4	-5	-2	3	7	5	6	9	5	0	9	-2	2	7	9	-8	29	7	-2	5	0	3.1	101	26	127			
9	0	0	-3	-4	-5	-2	3	7	5	6	9	5	0	9	-2	2	7	9	-8	29	7	-2	5	0	3.1	101	26	127			
10	-2	-7	-13	-12	-7	-5	-2	4	0	-7	-5	0	5	3	2	-6	14	31	23	-3	2	5	3	3	1.1	95	69	164			
11	3	-5	-49	-44	0	3	0	-2	3	4	-2	-5	2	0	0	-7	-5	-6	-7	-5	-4	-4	-2	-3	-5.8	15	150	165			
12	-3	-5	-6	-6	-6	-7	-6	-5	-5	0	4	3	0	-8	-10	-10	-7	-9	-8	-5	-3	0	0	0	-4.2	7	109	116			
13	-2	-3	-7	-6	-7	-6	0	4	6	5	3	2	0	0	0	3	6	5	7	2	-7	-3	0	0	0.2	46	41	87			
14	2	3	2	2	4	2	11	0	-3	-2	-3	-5	-9	-7	-7	-5	3	-6	-9	-15	-8	0	0	2	-2.0	31	79	110			
15	0	0	-12	-4	4	13	0	6	5	7	0	2	2	6	-5	0	0	2	0	-4	2	5	6	6	1.8	64	21	85			
16	0	-2	-7	-45	-42	-4	0	-4	0	3	-3	0	-7	-7	0	-5	-2	-3	-5	-6	-18	-6	0	0	-6.5	10	196	176			
17	0	-2	-7	-4	-4	-2	4	-14	-10	-11	-9	10	7	-2	15	9	3	-2	0	-4	-9	5	-3	-8	0.1	73	70	143			
18	-16	-6	0	0	0	0	4	-7	0	6	7	8	-3	-4	-2	0	3	0	-4	-2	0	7	8	0.8	58	38	98				
19	-2	-8	-5	0	-4	-3	7	8	2	5	-2	0	3	-4	-2	0	0	-3	0	12	-3	-2	0	0	-0.3	35	41	76			
20	-3	-2	-5	-6	2	4	4	4	0	-2	-6	-2	0	6	2	-10	-2	-14	-12	-10	-8	3	8	-4	-2.2	33	86	119			
21	-2	0	0	0	2	0	0	-2	-4	-6	-8	-8	-7	-3	-3	-2	-4	-4	-3	-2	0	0	2	2	-2.2	4	58	62			
22	0	0	0	-2	-4	-4	-5	-2	0	6	8	5	0	3	5	4	6	0	-8	-6	-5	-5	-5	-5	-0.7	37	54	91			
23	-5	-17	-14	-15	-12	-7	-9	-7	-6	-2	3	-3	0	14	8	9	10	10	6	8	16	13	10	3	0.5	110	97	207			
24	-6	-11	-7	0	5	-2	-3	-10	-14	-9	6	24	19	0	25	68	230	438	286	36	-122	-40	-159	-235	21.9	1139	614	1753			
25	-509	-740	-175	-16	-67	-103	-184	-180	-47	3	86	25	23	27	121	448	125	93	5	-9	-48	-79	-64	-31	-10.7	556	2252	2808			
26	-22	-28	-31	-31	-30	-22	-28	-22	-33	-28	-23	-20	-21	-22	-26	-29	-25	-18	-19	-20	-19	-12	4	-7	-22.6	4	546	550			
27	-4	-6	-7	-9	-9	-6	-4	-2	-5	-5	-2	0	6	13	-11	-															

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

Gr. M. T.

APRIL 1939

H = 0,13500 + TABULATED QUANTITIES EXPRESSED IN GAMMA.

Table with columns for DAY (1-31), 1-23, M, QM, R. Contains magnetic intensity data for April 1939.

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

Gr. M. T.

MAY

Table with columns for DAY (1-31), 1-23, M, QM, R. Contains magnetic intensity data for May 1939.

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

Gr. M. T.

JUNE

Table with columns for DAY (1-31), 1-23, M, QM, R. Contains magnetic intensity data for June 1939.

APRIL 1939

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

Dombås. Gr. M. T.

Table for April 1939 showing horizontal intensity, storminess, and unit gamma data for Dombås. Includes columns for Day (1-31), M, PS, NS, AS, and summary rows MNS and M.

MAY

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

Dombås. Gr. M. T.

Table for May showing horizontal intensity, storminess, and unit gamma data for Dombås. Includes columns for Day (1-31), M, PS, NS, AS, and summary rows MNS and M.

JUNE

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

Dombås. Gr. M. T.

Table for June showing horizontal intensity, storminess, and unit gamma data for Dombås. Includes columns for Day (1-31), M, PS, NS, AS, and summary rows MNS and M.

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

Gr. M. T.

Table for July 1939 showing magnetic intensity data. Columns include Day (1-31), hours (1-24), and values (M, QM, R). Includes sub-headers for 'JULY 1939' and 'H = 0,13500 + TABULATED QUANTITIES EXPRESSED IN GAMMA.'.

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

Gr. M. T.

Table for August 1939 showing magnetic intensity data. Columns include Day (1-31), hours (1-24), and values (M, QM, R). Includes sub-headers for 'AUGUST' and 'H = 0,13500 + TABULATED QUANTITIES EXPRESSED IN GAMMA.'.

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

Gr. M. T.

Table for September 1939 showing magnetic intensity data. Columns include Day (1-31), hours (1-24), and values (M, QM, R). Includes sub-headers for 'SEPTEMBER' and 'H = 0,13500 + TABULATED QUANTITIES EXPRESSED IN GAMMA.'.

JULY 1939

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

Dombås. Gr. M. T.

Table for July 1939 showing daily data for 25 days. Columns include Day, 25 numbered columns for intensity/storminess, and summary columns M, PS, NS, AS. Summary rows include M, MPS, and MNS.

AUGUST

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

Dombås. Gr. M. T.

Table for August 1939 showing daily data for 31 days. Columns include Day, 25 numbered columns for intensity/storminess, and summary columns M, PS, NS, AS. Summary rows include M, MPS, and MNS.

SEPTEMBER

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

Dombås. Gr. M. T.

Table for September 1939 showing daily data for 31 days. Columns include Day, 25 numbered columns for intensity/storminess, and summary columns M, PS, NS, AS. Summary rows include M, MPS, and MNS.

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

Gr. M. T.

Table for October 1939 showing magnetic intensity data. Columns include Day (1-31), 23 numbered columns (1-23), M, QM, and R. The table contains numerical values for each day and column.

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

Gr. M. T.

Table for November 1939 showing magnetic intensity data. Columns include Day (1-31), 23 numbered columns (1-23), M, QM, and R. The table contains numerical values for each day and column.

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

Gr. M. T.

Table for December 1939 showing magnetic intensity data. Columns include Day (1-31), 23 numbered columns (1-23), M, QM, and R. The table contains numerical values for each day and column.

OCTOBER 1939

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

Dombås. Gr. M. T.

Table for October 1939 showing daily data for 31 days. Columns include Day, 24 horizontal intensity values, M, PS, NS, and AS. Summary rows for M, MPS, and MNS are provided at the bottom.

NOVEMBER

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

Dombås. Gr. M. T.

Table for November showing daily data for 30 days. Columns include Day, 24 horizontal intensity values, M, PS, NS, and AS. Summary rows for M, MPS, and MNS are provided at the bottom.

DECEMBER

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

Dombås. Gr. M. T.

Table for December showing daily data for 31 days. Columns include Day, 24 horizontal intensity values, M, PS, NS, and AS. Summary rows for M, MPS, and MNS are provided at the bottom.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

JANUARY 1939

V = 0.47000 + TABULATED γ (73° + TABULATED QUANTITIES EXPRESSED IN MINUTES).

Table for January 1939 showing vertical intensity data for days 1-31. Columns include Day, hours 1-24, and summary columns M, QM, R, I, IO.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

FEBRUARY

Table for February showing vertical intensity data for days 1-29. Columns include Day, hours 1-24, and summary columns M, QM, R, I, IO.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

MARCH

Table for March showing vertical intensity data for days 1-31. Columns include Day, hours 1-24, and summary columns M, QM, R, I, IO.

Vertical Intensity. (+ Down). Unit Gamma.

V = 0.47000 + TABULATED 7 (73° + TABULATED QUANTITIES EXPRESSED IN MINUTES)

Dombás.

Gr. M. T.

Table for April 1939 showing magnetic intensity data. Columns include Day (1-31), 24-hour intervals (1-24), and summary columns (M, QM, R, I, IQ). Values range from approximately 114 to 208.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

Table for May 1939 showing magnetic intensity data. Columns include Day (1-31), 24-hour intervals (1-24), and summary columns (M, QM, R, I, IQ). Values range from approximately 110 to 228.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

Table for June 1939 showing magnetic intensity data. Columns include Day (1-30), 24-hour intervals (1-24), and summary columns (M, QM, R, I, IQ). Values range from approximately 115 to 209.

APRIL 1959

Vertical Intensity. Storminess (+ Down). Unit Gamma

Dombås.

Gr. M. T.

Table for April 1959 showing vertical intensity and storminess data. Columns include Day (1-31), Unit Gamma (1-25), M, P9, NS, AS, and summary rows for M, P9, NS, AS, MNS, and MNS.

MAY

Vertical Intensity. Storminess (+ Down). Unit Gamma

Dombås.

Gr. M. T.

Table for May 1959 showing vertical intensity and storminess data. Columns include Day (1-31), Unit Gamma (1-25), M, P9, NS, AS, and summary rows for M, P9, NS, AS, MNS, and MNS.

JUNE

Vertical Intensity. Storminess (+ Down). Unit Gamma

Dombås.

Gr. M. T.

Table for June 1959 showing vertical intensity and storminess data. Columns include Day (1-31), Unit Gamma (1-25), M, P9, NS, AS, and summary rows for M, P9, NS, AS, MNS, and MNS.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

Table for July 1939 showing magnetic intensity data. Columns include Day (1-31), 23 numbered columns (1-23), M, QM, R, I, and IQ. Values range from approximately 150 to 205.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

Table for August 1939 showing magnetic intensity data. Columns include Day (1-31), 23 numbered columns (1-23), M, QM, R, I, and IQ. Values range from approximately 140 to 200.

Vertical Intensity. (+ Down). Unit Gamma.

Dombás.

Gr. M. T.

Table for September 1939 showing magnetic intensity data. Columns include Day (1-31), 23 numbered columns (1-23), M, QM, R, I, and IQ. Values range from approximately 120 to 200.

Vertical Intensity. (+ Down). Unit Gamma.

V = 0.47000 + TABULATED γ (73° + TABULATED QUANTITIES EXPRESSED IN MINUTES)

Dombás.

Gr. M. T.

Table for October 1939 showing vertical intensity data for days 1-31. Columns include Day, Hour (1-24), and various intensity measurements (M, QM, R, I, Q1).

Vertical Intensity. (+ Down). Unit Gamma.

V = 0.47000 + TABULATED γ (73° + TABULATED QUANTITIES EXPRESSED IN MINUTES)

Dombás.

Gr. M. T.

Table for November 1939 showing vertical intensity data for days 1-31. Columns include Day, Hour (1-24), and various intensity measurements (M, QM, R, I, Q1).

Vertical Intensity. (+ Down). Unit Gamma.

V = 0.47000 + TABULATED γ (73° + TABULATED QUANTITIES EXPRESSED IN MINUTES)

Dombás.

Gr. M. T.

Table for December 1939 showing vertical intensity data for days 1-31. Columns include Day, Hour (1-24), and various intensity measurements (M, QM, R, I, Q1).

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

Dombås.

Gr. M. T.

Table for October 1959 showing vertical intensity and storminess data for Dombås. Columns include Day, 24 hours of intensity/storminess, and summary statistics (M, PS, NS, AS).

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

Dombås.

Gr. M. T.

Table for November 1959 showing vertical intensity and storminess data for Dombås. Columns include Day, 24 hours of intensity/storminess, and summary statistics (M, PS, NS, AS).

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

Dombås.

Gr. M. T.

Table for December 1959 showing vertical intensity and storminess data for Dombås. Columns include Day, 24 hours of intensity/storminess, and summary statistics (M, PS, NS, AS).

DECLINATION (+W) 1939	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
DIRECT VALUES. D = 1000'	762	763	760	757	756	760	758	749	747	739	735	732	752
QUIET VALUES. D = 1000'	764	764	762	757	757	757	758	753	749	744	737	735	753
DIRECT VALUES. D = 7°+	15.1	15.4	14.7	13.9	13.7	14.7	14.2	12.0	11.5	9.6	8.7	7.9	12.6
QUIET VALUES. D = 7°+	15.6	16.4	15.2	13.9	13.9	13.9	13.3	13.0	12.0	10.8	9.1	8.6	12.9
RANGE	65	147	163	183	141	95	111	164	121	186	75	94	129
QUIET RANGE	3	2	1	4	0	1	1	1	1	0	1	4	1
STORMINESS, MEAN (UNIT γ)	-2.0	-1.2	-2.9	-2.1	-1.5	1.8	1.5	0.0	-0.7	-5.3	-1.8	-2.5	-1.4
STORMINESS, DIURNAL SUM OF PS	46	115	100	129	124	129	148	110	106	81	63	69	102
" " " NS	94	148	166	166	155	93	118	120	118	208	108	130	126
" " " AS	140	262	265	295	279	222	266	130	224	289	171	199	228
CHARACTER NUMBERS	0.5	1.1	1.1	1.1	1.1	0.9	1.1	0.5	0.9	1.1	0.8	0.7	0.9

HORIZONTAL INTENSITY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
DIRECT VALUES. H = 0.13500 + ..	442	429	432	429	424	459	435	414	415	407	417	407	426
QUIET VALUES. H = 0.13500 + ..	441	432	437	427	434	439	436	424	415	418	417	412	428
RANGE	45	216	216	395	371	174	257	343	187	282	81	89	222
QUIET RANGE	11	15	27	50	81	65	57	54	50	42	20	14	39
STORMINESS, MEAN (UNIT γ)	-1.3	-4.9	-5.9	-3.3	-14.5	-3.1	-2.3	-15.5	-1.1	-14.4	-1.3	-5.2	-6.1
STORMINESS, DIURNAL SUM OF PS	55	145	186	398	319	218	304	289	173	147	82	78	199
" " " NS	81	248	326	524	588	277	344	586	199	418	107	167	322
" " " AS	136	393	512	922	907	495	648	675	372	565	189	245	521

VERTICAL INTENSITY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
DIRECT VALUES. V = 0.47000 + ..	164	163	174	156	157	176	177	168	161	165	162	153	163
QUIET VALUES. V = 0.47000 + ..	160	159	175	162	166	176	180	171	171	170	169	134	166
DIRECT VALUES. V = 73° +	32.1	33.1	32.8	33.1	32.8	31.9	32.5	33.0	33.6	34.9	34.2	34.3	33.2
QUIET VALUES. V = 73° +	31.9	32.5	32.4	32.9	32.4	31.7	32.6	33.0	34.1	34.3	34.3	34.0	33.0
RANGE	42	107	127	190	142	79	125	118	81	155	59	86	109
QUIET RANGE	6	5	8	14	16	10	15	15	10	6	6	6	10
STORMINESS, MEAN (UNIT γ)	4.7	5.1	-0.6	-5.5	-12.9	-3.3	-5.7	-2.1	-18.5	-6.8	-6.6	-1.0	-4.4
STORMINESS, DIURNAL SUM OF PS	206	298	237	211	112	121	126	206	102	174	80	104	184
" " " NS	94	154	248	344	421	200	262	256	547	338	240	189	274
" " " AS	300	452	485	555	533	321	388	462	649	512	320	293	438

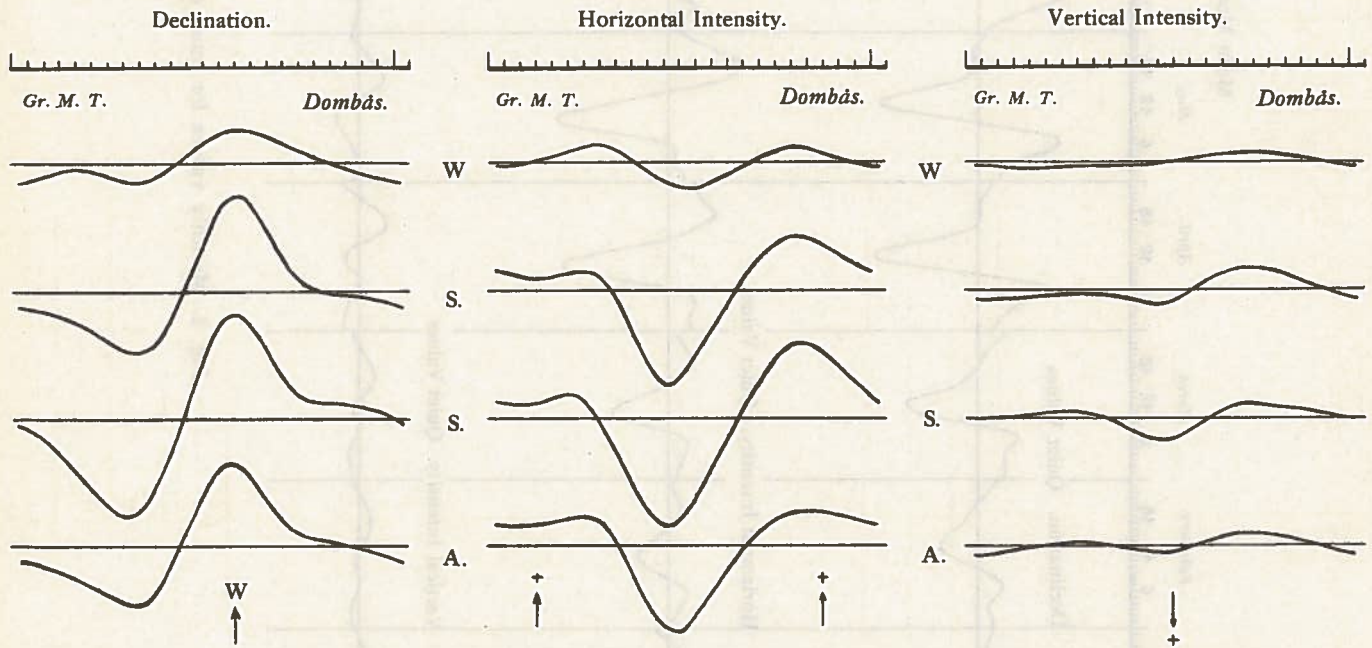


Fig. 1. Diurnal variation for quiet values for D, H and V for the four seasons in the year 1939.

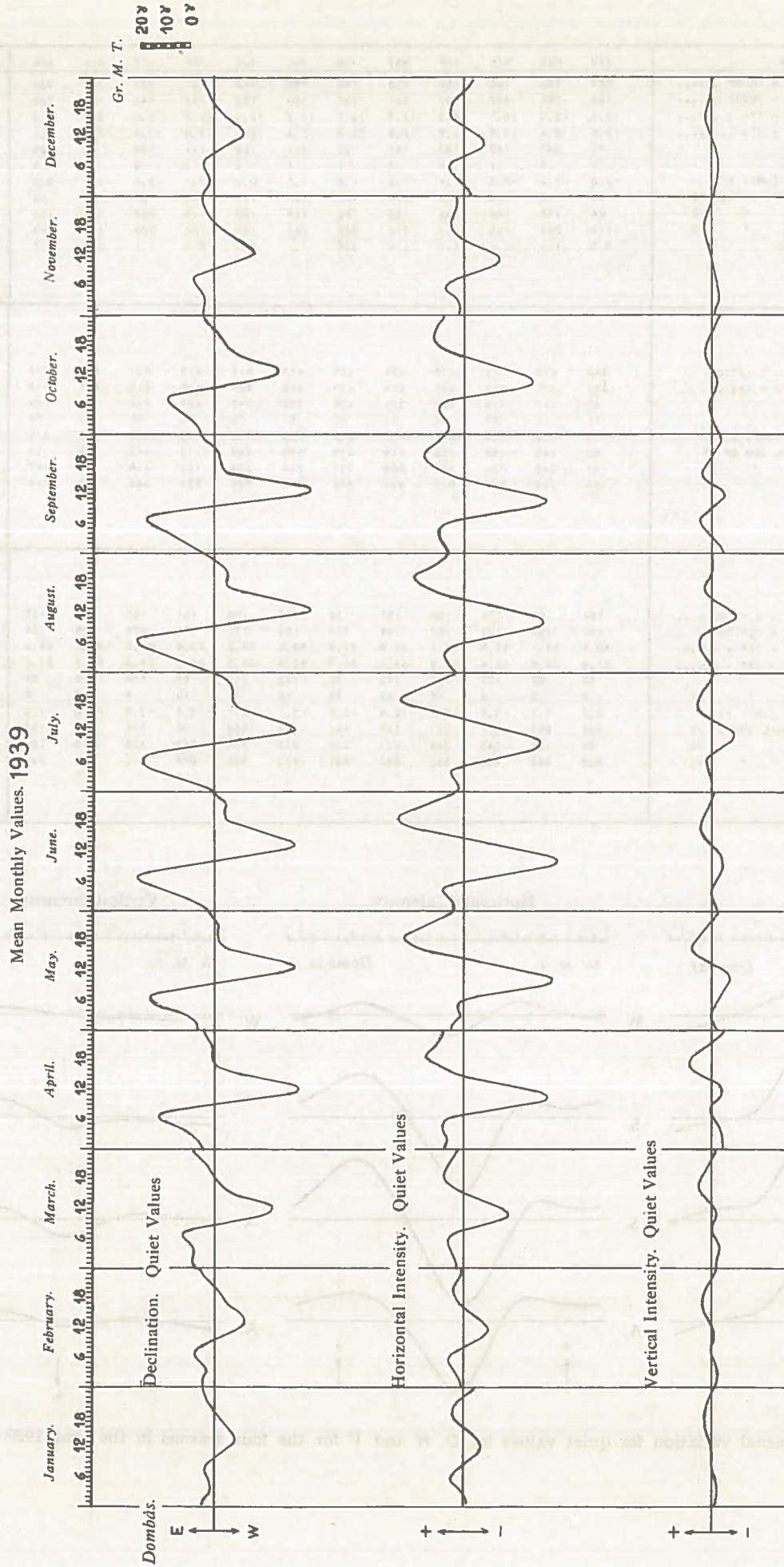


Fig. 2. Monthly values for quiet diurnal variation for *D*, *H* and *V* for Dombás for 1939.

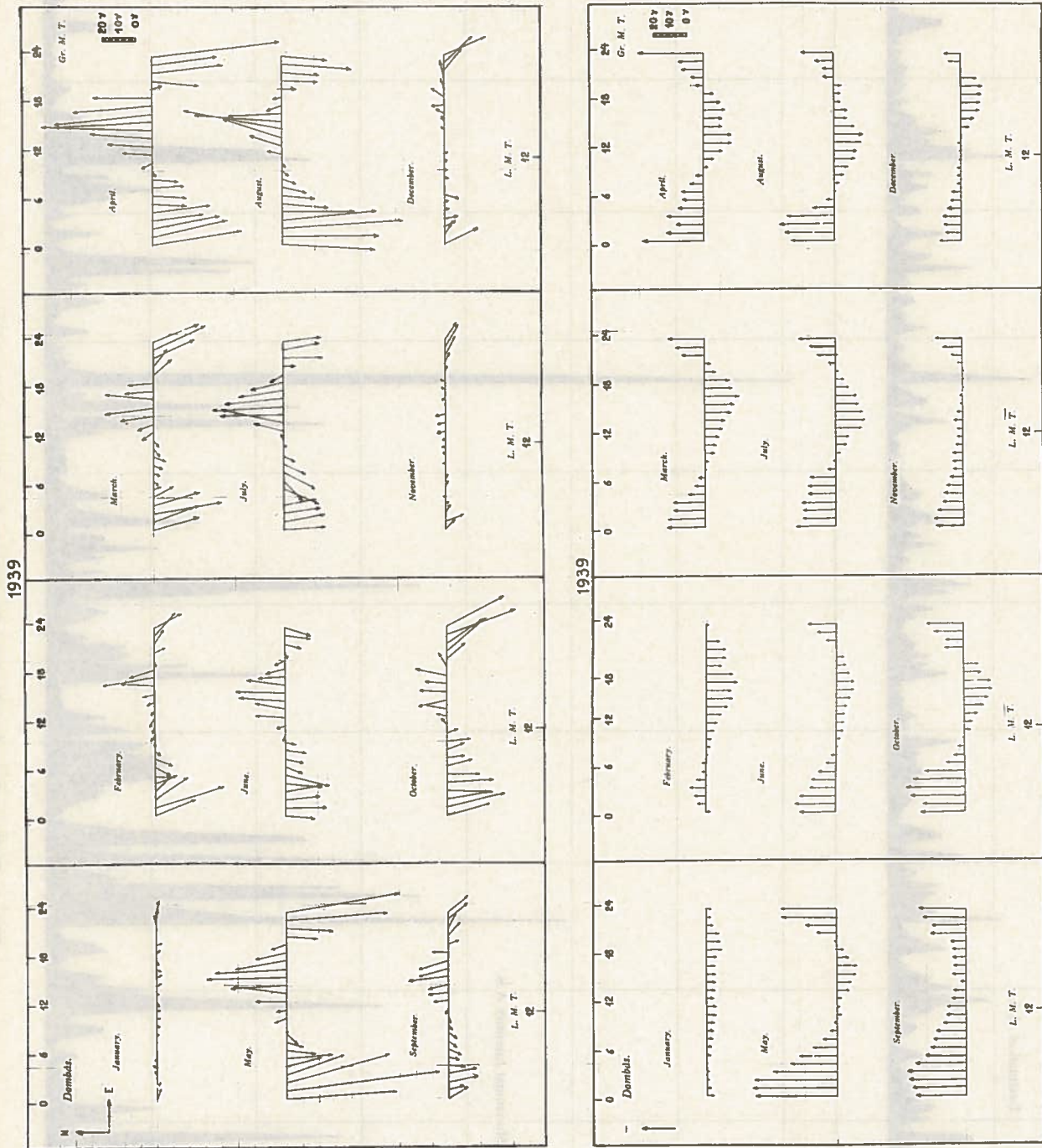


Fig. 3. Above: Monthly mean values for diurnal variation of Storminess as vector diagrams for *D* and *H* for 1939. Below: Monthly mean diurnal variation for Storminess in the vertical intensity for 1939.

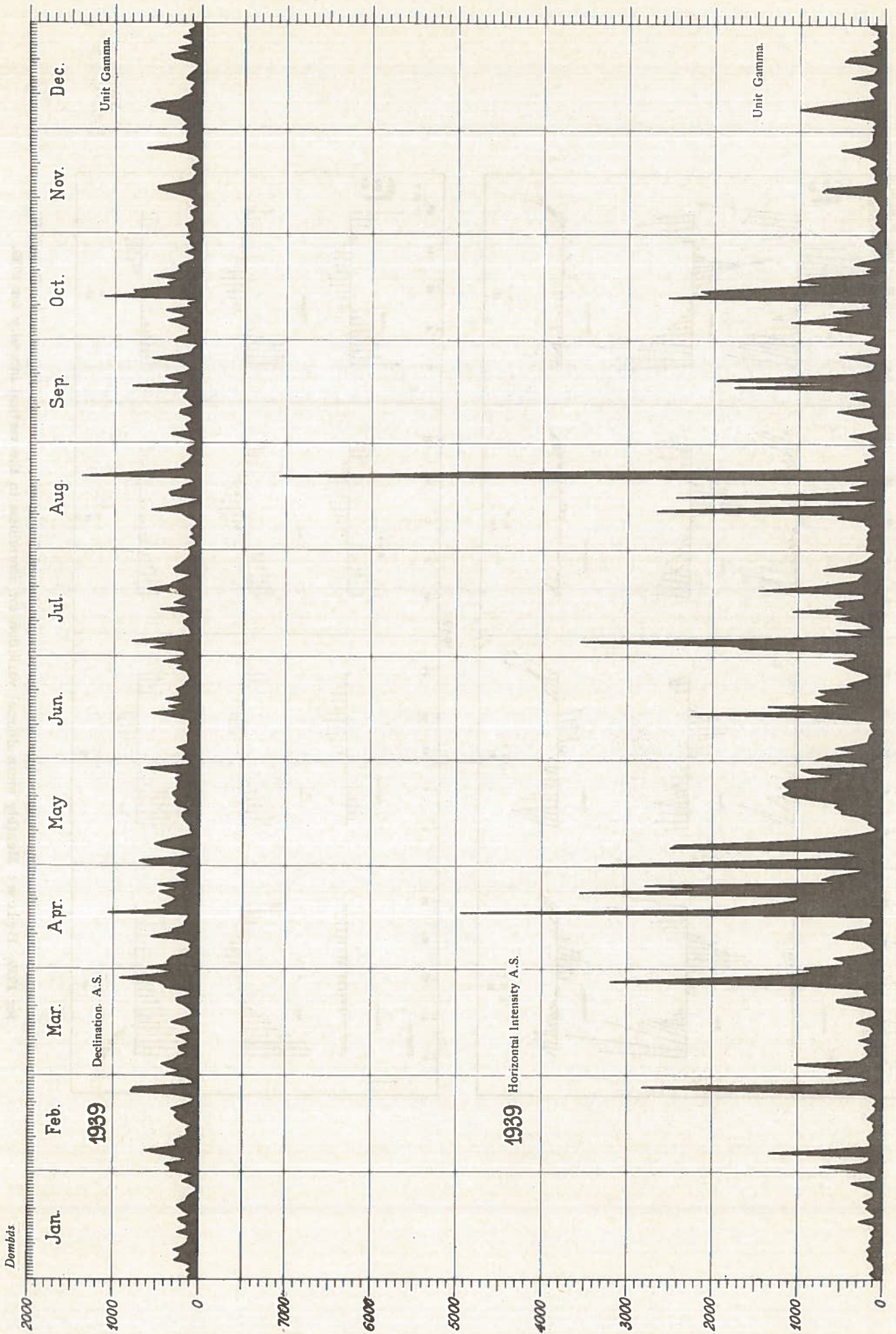
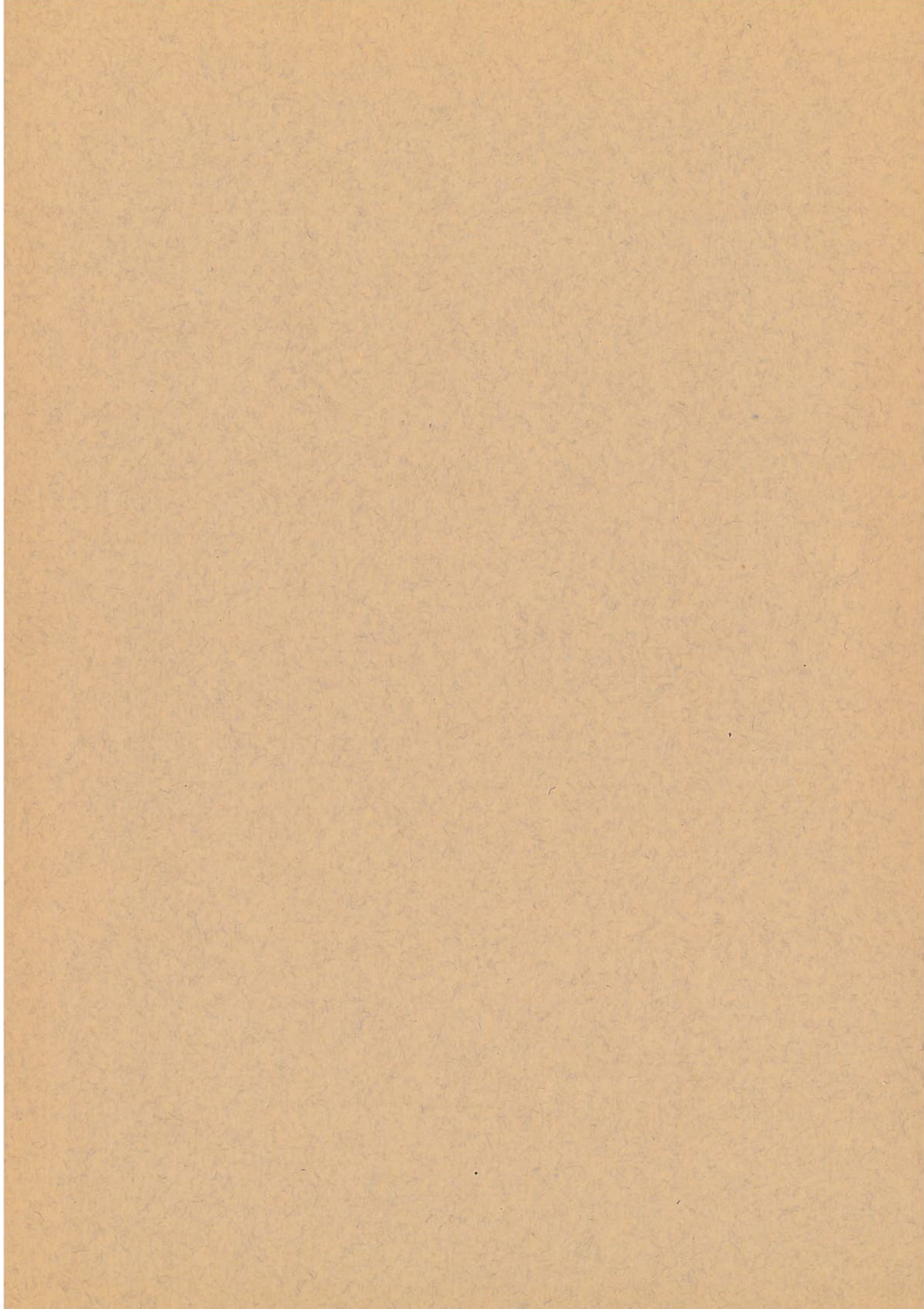


Fig. 4. Daily values for absolute Storminess for *D* and *H* for 1939.



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19. The Auroral Observatory at Tromsø. Results of Magnetic Observations for the Year 1939 by LEIV HARANG and E. TØNSBERG.