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(Based upon the material collected at Dombås Observatory)

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Errata.

In *Results from the Magnetic Station at Dombås 1916—30* the following errors have been detected:

Page	Line	For	Read
14*	Footnote	Page 28	Page 38
15*	20	charachter	character
108	In the graph for		
	January 27th	1870	2870
	and for October 15th	6884	6854

In the headings of the tables for *Vertical Intensity* p. p. 22–28 and p. p. 31—55 (— Down) has been used instead of (+ Down), except for the years 1920 and 1927. — (+ Down) standing for downwards movement of the north pole of *Lloyd's Balance* by increasing vertical intensity.

In the heading of the storminess table for *H* for 1927 (— N) has has been used instead of (+ N).

Furthermore is (— Down) used in the headings of the plates p. p. 88—89 instead of (+ Down). In the plates p. p. 98–102, where the minus scale is used above the middle line, the sign + ought to have been put below the downwards pointing arrow in correspondence with what in used for *V* page 103.

SOME OF THE MOST CHARACTERISTIC FEATURES IN THE VARIATION OF MAGNETIC ELEMENTS

(Based upon the material collected at Dombås Observatory).

By

K. F. WASSERFALL.

INTRODUCTION.

The magnetic station at *Dombås* ($\varphi = 62° 04'.7$, $\lambda = 9° 05'.8$) was started in 1916. The material collected has been worked up at *Det Magnetiske Byrå* in Bergen and was published in 1936.[1] As this publication contains results for the entire epoch 1916—33, the tables and graphs required so much space that we had to postpone the discussion of the results for a later occasion.

In the present paper I propose to make a general investigation of the most characteristic features in the variation, so far as this can be extracted from the tables given in above mentioned paper. As I shall repeatedly refer to the results from the Magnetic Station at Dombås, No. 9, we may make use of the abbreviation: *R. f. D.*

THE DIURNAL VARIATION OF CALM DAYS.

The original data for this variation has been stated in *R. f. D.* p. p. 2—19: »*Tables giving the 7-day normal for quiet diurnal variation for D and H*,« p. p. 22—28: »*Tables giving monthly mean values for quiet diurnal variation for D, H and V*,« and finally p. p. 84—90: »*Graphs giving monthly and annual values for quiet diurnal variation of D, H and V*. The method used for extracting such data has been explained in *R. f. D.* p. p. 10*—15*.

To arrive at a good average expression for the diurnal variation of quiet days, I have in the present paper worked out mean figures, month by month, for one 11-year epoch. As the vertical intensity-data are missing for the first years, 1916—19, and because the quality of *D* and *H* is best in later years, I have for said average data chosen the 11-year epoch 1923—33.

The resulting tables of mean monthly values for quiet diurnal variation for the epoch 1923—33 have been stated page 18, and the corresponding graphs in the upper part of the plate on page 20 — declination in the first column, then *H* and finally *V*.

[1] O. KROGNESS † and K. F. WASSERFALL: Results from the Magnetic Station at Dombås 1916—33. Publikasjoner fra Det Norske Institutt for Kosmisk Fysikk. No. 9. Bergen 1936.

The point of time (L. M. T.)[1] when the maximum and minimum of the primary wave of the diurnal variation of each month occurs will be found in Table I. By maximum for declination I mean the extreme eastern value, while maximum for the intensity data means highest positive value. It will be seen that these maximum (minimum)

Table I.

Month	Declination		Hor. Int.		Vert. Int.	
	Max. E	Max. W	Max.	Min.	Max.	Min.
	t. m.	t. m.	t. m.	t. m.	t. m.	t. m.
Jan.	8 05	13 05	19 05	11 25	10 15	17 35
Feb.	8 05	13 35	19 25	11 45	10 35	17 35
Mar.	7 55	13 35	19 15	11 25	11 05	17 35
Apr.	7 35	13 20	19 25	11 05	11 35	18 05
May.	7 05	13 05	19 35	10 45	11 50	18 35
Jun.	6 45	13 15	19 15	10 35	11 35	18 45
Jul.	6 25	13 25	18 55	10 45	11 25	18 35
Aug.	6 35	13 15	19 15	10 55	11 25	18 15
Sep.	7 05	13 05	19 45	11 05	11 35	18 05
Oct.	7 35	13 15	19 55	11 15	11 15	17 55
Nov.	7 45	13 15	19 35	11 25	10 35	17 45
Dec.	7 55	13 05	19 55	11 25	10 25	17 35

points are gradually displaced during the year. Examination of these curves for quiet diurnal variation shows, that besides the primary maximum, there is also an interesting secondary maximum, which, however, will be treated more in detail in another paper.

Graphs for mean annual values of diurnal variation of quiet days for D, H and V are to be found in the first column to the left of Fig. 4.

THE AMPLITUDE OF THE PRIMARY WAVE IN THE QUIET DIURNAL VARIATION.

Data for the amplitude in the primary wave of the quiet diurnal variation for the epoch 1923—33 has, for the three elements, been entered, month by month, in Table II. The table shows that there is a very strong annual variation in these figures. The mean figure for each month is not, however, the same year by year. Examination shows

Table II.

Element	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
D	14.2	20.8	34.5	47.5	47.9	52.3	53.4	51.0	43.5	29.4	17.9	13.8
H	11.8	18.8	27.0	43.2	48.3	51.1	49.3	44.3	35.4	28.3	16.7	10.5
V	5.7	7.6	10.9	13.5	14.8	15.0	16.2	14.6	11.9	9.6	6.6	5.2

[1] Exact L. M. T. is 25 minutes to the right of the arrows indicating local mean time on the figures.

that these figures vary periodically from year to year in correspondence with the 11-year period in the sunspots, which will be seen by looking at the three tables III, IV and V — containing monthly mean figures for the amplitude in the diurnal variation of quiet days for *D*, *H* and *V*, respectively.

D. *Table III.*

Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	14	12	13	17	17	16	17	16	9	13	12
Feb.	19	15	21	27	19	27	30	24	14	19	14
Mar.	29	30	31	40	38	40	44	34	36	28	30
Apr.	43	40	45	50	57	57	57	48	42	40	44
May	37	41	44	50	56	60	55	47	50	40	47
Jun.	42	49	55	59	60	61	55	47	52	47	48
Jul.	37	54	56	59	59	62	60	47	54	50	49
Aug.	44	45	49	55	55	57	54	50	51	48	53
Sep.	36	42	42	43	45	62	46	50	41	37	35
Oct.	23	25	33	28	36	38	35	29	25	26	25
Nov.	14	13	22	19	19	20	18	15	22	15	20
Dec.	11	10	15	18	14	14	19	13	14	11	13
Mean[1]	29.1	31.3	35.5	38.8	39.6	42.9	40.8	35.0	34.2	31.2	32.5

H. *Table IV.*

Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	9	9	10	20	14	15	15	12	6	7	13
Feb.	16	13	16	25	24	23	27	25	11	14	13
Mar.	22	22	23	33	36	36	32	27	26	19	21
Apr.	39	39	44	46	52	51	48	45	41	35	35
May	39	44	48	49	55	67	48	46	48	45	42
Jun.	45	48	61	54	58	63	52	47	49	44	41
Jul.	37	47	53	49	58	60	54	42	52	46	44
Jul.	41	43	46	43	39	53	48	45	44	43	42
Aug.	34	37	36	35	35	44	38	33	32	33	32
Sep.	26	30	31	25	32	32	32	27	27	23	26
Oct.	15	14	20	20	16	18	18	12	20	19	12
Nov.	7	6	13	16	11	12	14	7	9	14	7
Mean[1]	27.5	29.3	33.4	34.6	35.8	39.5	35.5	30.7	30.4	28.5	27.3

[1] It will be seen that the figures in the last line, *Mean*, in the three tables do not agree with those given in *R. f. D.* p. p. 9–19, nor with those given p. p. 24—28. The reason is that the manner of fixing these means is different in each case. In the tables above the means represent arithmetical means of the figures of the column in question.

V.

Table V.

Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	7	4	6	8	7	7	6	5	4	5	4
Feb.	4	6	7	10	12	12	10	9	6	4	4
Mar.	7	7	10	12	16	17	14	12	9	9	7
Apr.	10	9	14	16	17	18	17	15	14	9	10
May	10	11	14	17	20	20	17	15	15	11	13
Jun.	10	12	17	20	20	20	17	12	15	12	10
Jul.	15	16	18	18	17	19	14	17	19	12	13
Aug.	16	15	15	18	10	17	17	19	18	9	7
Sep.	14′	12	13	13	11	14	13	15	13	8	5
Oct.	9	12	10	9	10	13	11	10	11	6	5
Nov.	7	7	6	6	7	7	8	6	8	6	5
Dec.	5	6	4	6	6	4	5	5	7	4	5
Mean[1]	9.5	9.8	11.2	12.5	12.8	14.0	12.4	11.7	11.6	7.9	7.3

If we want to plot these figures graphically to get a detailed comparison with a corresponding graph of the sunspots, we shall have to eliminate the above mentioned annual wave. Though it is a well-known fact, that also the sunspot data show an annual wave, this wave is very slight in comparison to that of the magnetic data stated in Table II, so that no correction is necessary for the sunspot data. The figure used for the plotting of the graphs in Fig. 1 represents, therefore, the difference between the data, stated in the three tables III, IV and V, and data for annual variation stated in Table II — respectively for the three elements. Above we have the graph for *D*, then that for *H* and finally that for *V*. Below we have plotted corresponding figures for the sunspots according to Wolfer's data.

To arrive at a view of the 11-year period for the whole epoch 1916—33 I give in Fig. 2 a graph plotted with yearly mean values for the amplitude of the diurnal variation compared with a corresponding graph for the sunspots.

THE ANNUAL WAVE IN THE AMPLITUDE OF DIURNAL VARIATION OF CALM DAYS.

It will be seen that the annual wave of the amplitude in the diurnal variation, stated in Table II, has a comparatively smooth character. This is, to a certain degree, also the case when monthly figures for each year, as those given in the three tables III, IV and V, are plotted. If, however, we go more in detail and use the 7-day values for the amplitude — stated in the tables p. p. 2—19 in *R. f. D.*, we shall see that we arrive at quite another picture. In Table VI and Table VII I have given such 7-days values for the amplitude of quiet days for *D* and *H* for the 11-year epoch 1920—31. The four figures for each month are entered in the tables in columns headed with the month in question. The figures have been plotted in Fig. 3, and subjected to harmonic

[1] It will be seen that the figures in the last line, *Mean*, in the three tables do not agree with those given in *R. f. D.* p. p. 9—19, nor with those given p. p. 24—28. The reason is that the manner of fixing these means is different in each case. In the tables above the means represent arithmetical means of the figures of the column in question.

Dombås. Unit Gamma.

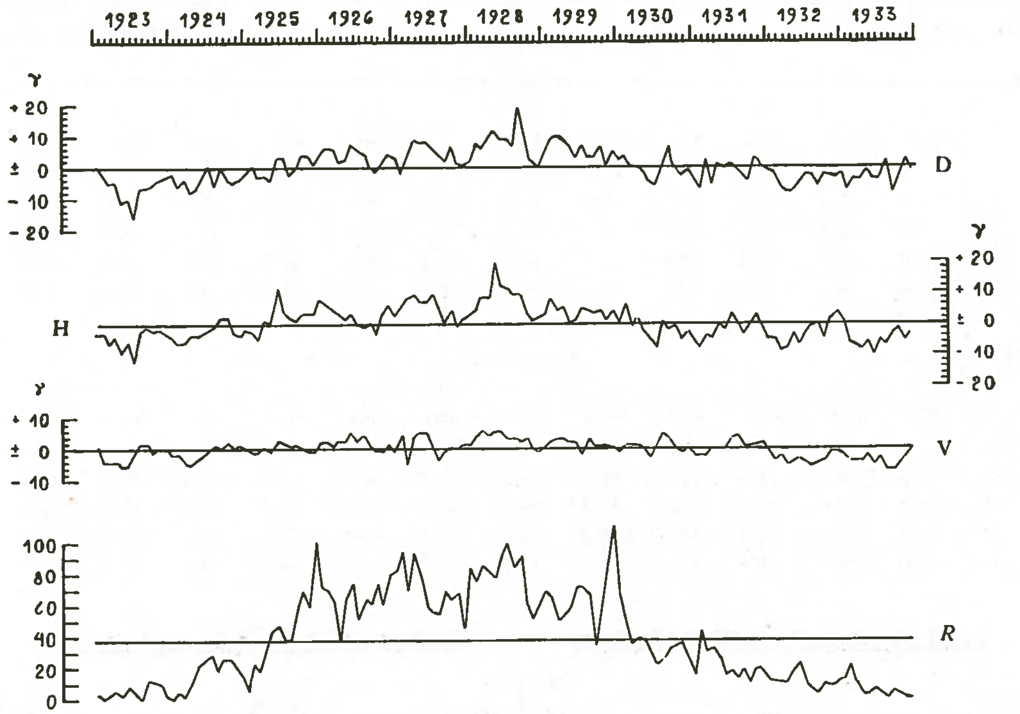


Fig. 1. The 11-year period in the amplitude of the diurnal variation of quiet days for the three elements D, H and V — for the magnetic station at Dombås.

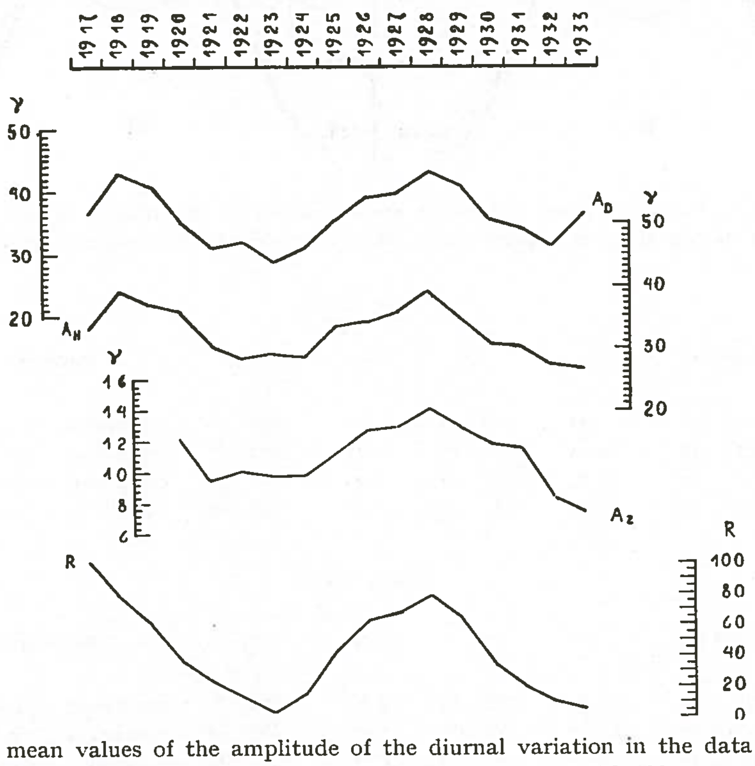


Fig. 2. Yearly mean values of the amplitude of the diurnal variation in the data for quiet days for D, H and V at Dombås for the epoch 1916—33.

analysis, the result of which is seen in the graph, and stated in the two tables VIII and IX, respectively for *D* and *H*. In these tables we shall also find the result of harmonic analysis, when alternately we make use of only maximum or minimum years.

D. *Table VI.*

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	13.3	19.4	28.1	47.2	47.9	50.2	53.8	49.6	49.4	31.9	20.9	13.7
2	13.7	20.8	32.5	49.2	47.1	52.3	55.2	49.0	45.8	32.8	18.3	13.8
3	14.9	22.4	37.4	47.6	47.5	52.0	53.1	50.6	41.5	30.2	17.4	12.3
4	16.6	25.1	42.4	47.1	48.9	51.9	52.3	50.5	36.3	24.7	15.2	12.7

H. *Table VII.*

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1	9.5	15.7	22.6	41.5	47.8	53.2	54.4	46.7	38.7	31.2	20.5	10.5
2	10.7	15.9	24.4	46.2	49.5	54.8	55.2	46.6	37.2	30.9	18.8	9.5
3	11.4	18.8	31.4	45.8	50.2	53.4	49.7	44.9	37.4	27.4	16.3	8.2
4	13.6	21.9	36.8	46.6	51.2	52.8	46.2	42.0	34.2	23.2	12.2	7.9

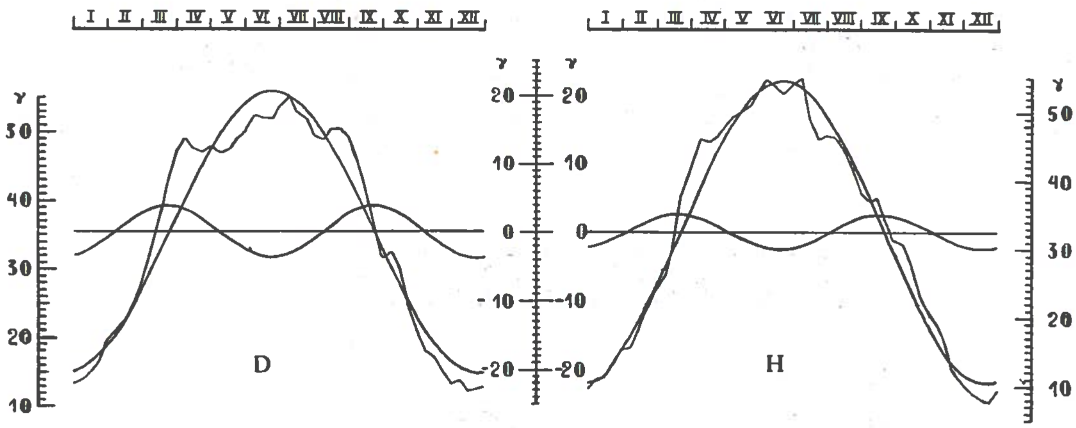


Fig. 3. The annual wave of 7-day values for the amplitude of the diurnal variation of quiet days for *D* and *H* for the epoch 1920—31, and the result of harmonic analysis.

D. *Table VIII.*

Epoch	C_1	α_1	C_2	α_2	Character
1917—20	21.34	174° 15′	3.24	162° 28′	maximum years
1921—24	18.74	173° 44′	2.78	165° 08′	minimum years
1927—30	22.82	173° 08′	5.08	169° 29′	maximum years
1920—31	20.61	172° 04′	3.77	166° 31′	one 11-year period

H. *Table IX.*

Epoch	C_1	α_1	C_2	α_2	Character
1917—20	23.76	172° 34′	2.41	264° 38′	maximum years
1921—24	21.29	175° 06′	2.76	259° 34′	minimum years
1927—30	22.19	165° 52′	2.78	265° 46′	maximum years
1920—31	22.11	170° 17′	2.50	256° 49′	one 11-year period

Looking at the figures in the two tables VI and VII and the plottings in Fig. 3, we see that the character of the curves is very irregular. If we plot these 7-day figures for each year separately, we find a still more varying picture, but here the variation will exhibit itself in a more regular form. Examination of such figures will show, that beside the annual and half-yearly waves we have also the two sun-rotation periods of $13\frac{1}{2}$ and 27 days represented. To make an analysis with 7-days values in order to exhibit these periodicities will not, however, present a very convincing picture, but if we tried to work out *normals* for the regular variation of quiet days, day by day for the whole year, we would arrive at a fairly good picture of the two mentioned wave series.

THE DIURNAL VARIATION IN THE STORMINESS.

Looking at the graphs in *R. f. D.* p. p. 92—103, it is easy to see that the distribution of storminess during the 24 hours is very systematically arranged. We can, thus, speak of *the diurnal variation of storminess* in the same way as that of quiet values. We know that a magnetically disturbed record sometimes shows positive and sometimes negative perturbations and in the mentioned graphs we see that also the distribution of pos. and neg. perturbations is very systematically arranged. It seems, therefore, desirable in our examination of the diurnal wave of the storminess to form mean values for positive and negative perturbations separately, and so add such mean values for the combined effect. Using the same symbols* as in *R. f. D.* we shall form mean figures for the diurnal variation for PS, NS and (PS—NS), month by month for the epoch 1923—33. Such mean data will be found on p. p. 17—18 for the three elements *D*, *H* and *V*, and graphs plotted with these figures are stated on p. p. 21—23.

Now taking mean figures for the diurnal variation for the whole year of the epoch 1923—33 we arrive at a good general view of the distribution of storminess, which will be seen from the graphs in Fig. 4. In Table X, we have for the three elements *D*, *H* and *V*, noted down the extreme values of the diurnal variation for quiet progress, Q. V., positive and negative perturbations, PS and NS respectively, besides that of the quantity (PS—NS). These data are in the table entered under the two columns Max. and Min., and the point of time, when the extremes occur, are, under the heading, *Hour*, taken directly from the curves in Fig. 4, and put down according to L. M. T.

Table X.

Element	Max.	Hour	Min.	Hour	Ampl.	
	γ	t. m.	γ	t. m.	γ	
Q.V.	14.2 E	8 00	20.7 W	14 00	34.9	Declination
PS	4.7 W	8 00	1.2 W	23 00	3.5	
NS	9.6 E	23 00	1.8 E	9 00	7.8	
PS—NS	8.4 E	23 00	2.7 W	8 00	11.1	
Q.V.	10.8	20 00	20.3	12 00	31.1	Hor. Int.
PS	11.4	18 00	1.1	4 00	10.3	
NS	16.5	2 00	2.0	16 00	14.5	
PS—NS	8.9	18 00	15.1	2 00	24.0	
Q.V.	5.0	19 00	5.4	12 00	10.4	Vert. Int.
NS	11.8	18 00	0.8	4 00	11.0	
PS	19.1	2 00	1.3	16 00	17.8	
PS—NS	18.2	2 00	10.3	18 00	28.5	

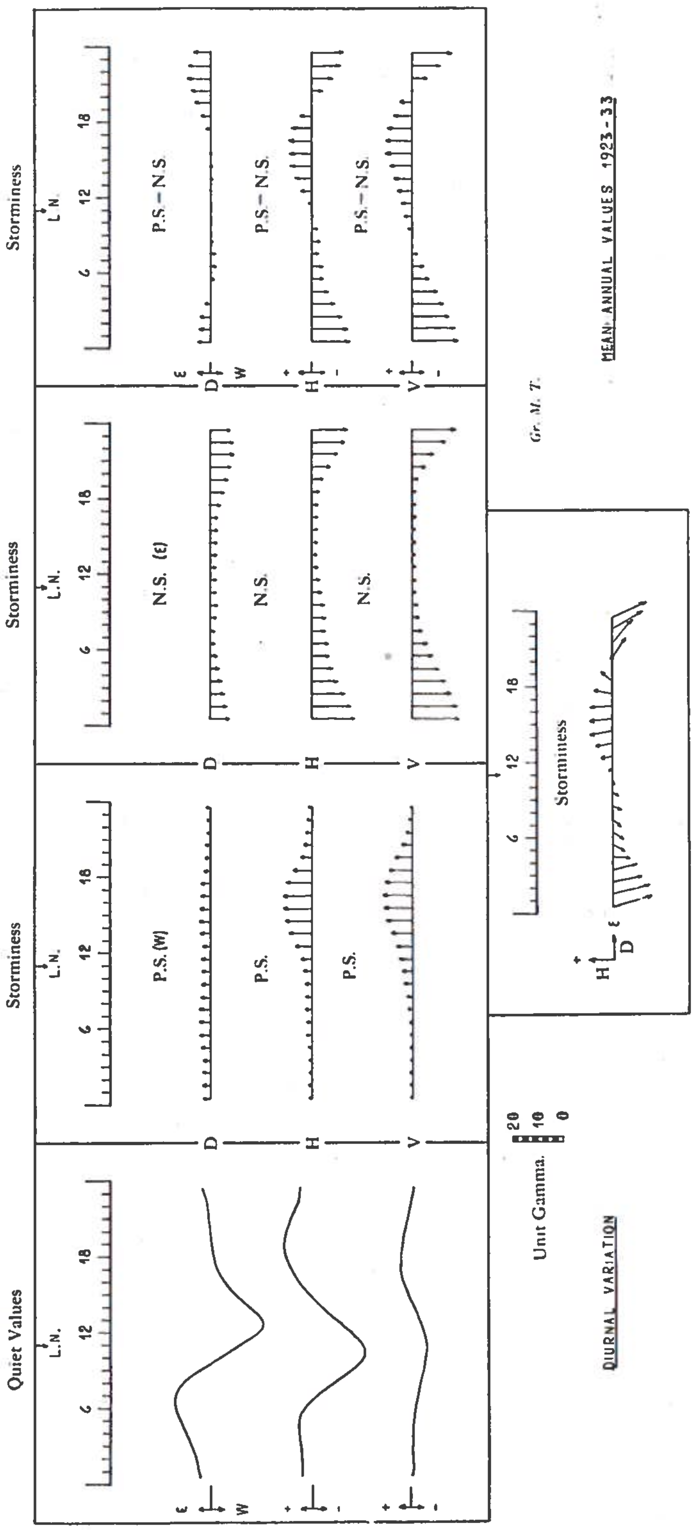


Fig. 4. Annual mean values for the diurnal variation of quiet days, for *D*, *H* and *V* at Dombås for the epoch 1923—33, and corresponding graphs for PS, NS and (PS—NS), besides vector diagrams for *D* and *H*.

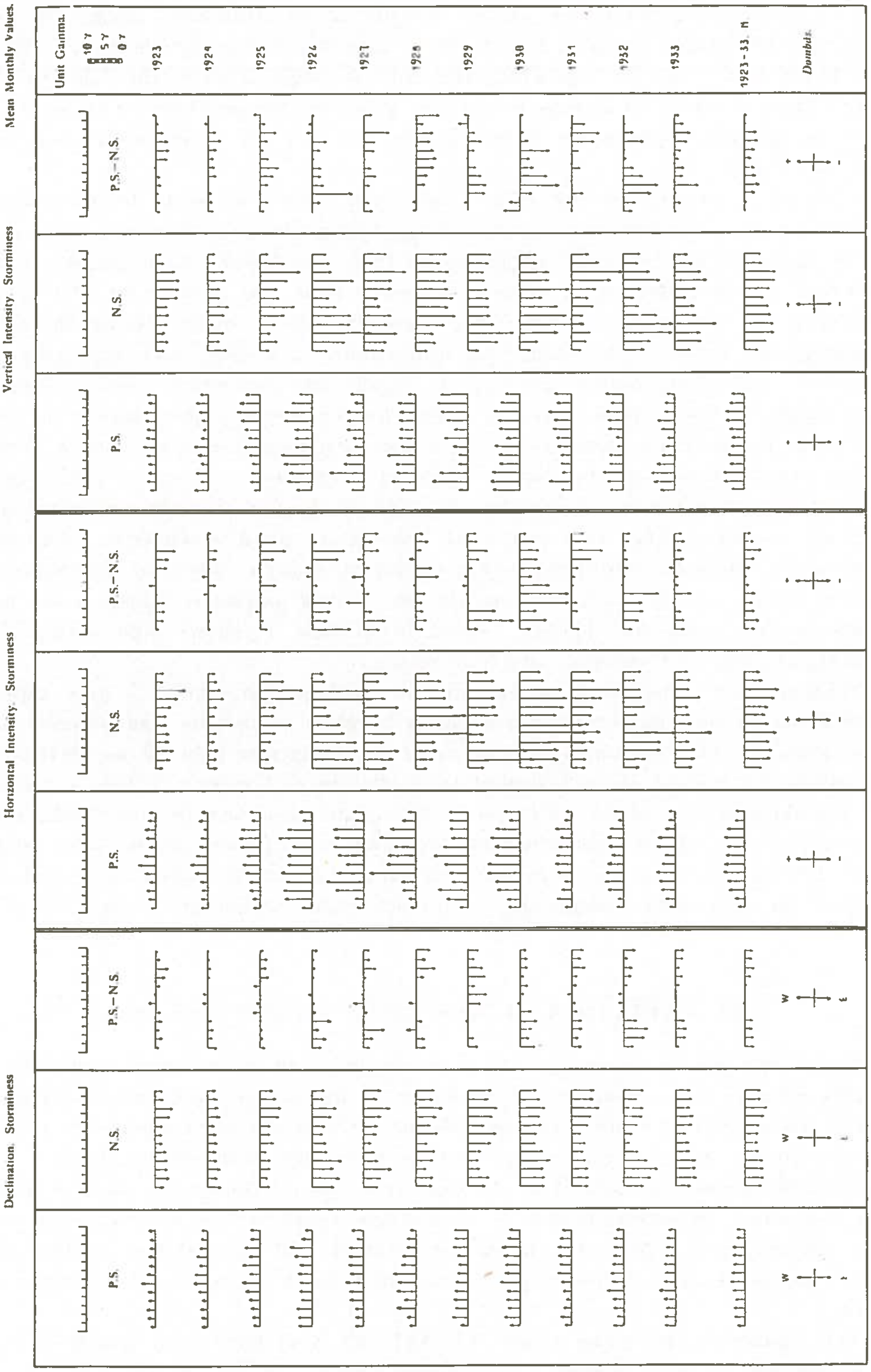


Fig. 5. The distribution of storminess during the year.

THE ANNUAL DISTRIBUTION OF STORMINESS.

To arrive at a general view of the distribution of storminess during the year I have plotted the graphs given in Fig. 5. Mean monthly figures for the epoch 1923—33 will be found below and corresponding data for the single years in the columns above. The first three columns of graphs to the left give PS, NS and (PS—NS) for *D*, then follows corresponding graphs for *H* and finally for *V*. The tables with these figures will be found page 19.

Looking at the results for each single year, there seems to be a considerable disagreement in the distribution of storminess during the year, but the graphs plotted with the mean figures for the whole epoch 1923—33 below, show plainly that the distribution is submitted to a certain system. Thus the graphs for PS (westerly perturbation for *D*) show for the three elements higher values during the summer than during the winter. There is also an indication of a double wave, especially in the data for *V*, indicating higher activity in March and September, with a depression in the middle of the summer. In the graphs for NS (easterly perturbation for *D*) this double wave is still more accentuated. It is also clearly marked in the month to month values of the amplitude of the diurnal wave of storminess — c. p. p. p. 21—23.

Most remarkable in the graphs for (PS—NS) is the fact that the numercial figures for NS are so dominating, that nearly all the arrows point downwards. This shows: *that increasing magnetic storminess means increasing easterly values for declination, and decreasing values in the horizontal and in the vertical intensity*, which leads to the well known fact that the 11-year period of *H* and *V* shows high values during the minimum years for sunspots and *vice versa*.

Without here attempting to explain the problem physically, I may especially call attention to the characteristic *diurnal distribution of positive and negative perturbations*. Looking at the storminess graphs for *H* in the plate on page 22, we see that negative storminess is highest about midnight and continues to dominate as long as the sun is below the horizon. At about local noon, and again at about 18 o'clock the average of positive as well negative perturbations are small and of more or less same strength, so that (PS—NS) is never far from zero. Between 12 and 18 o'clock the positive perturbations are absolutely dominating, and reach their maximum at about 16 o'clock L. M. T.

THE VARIATION OF ABSOLUTE STORMINESS, A.S.

These data are stated in *R. f. D.* p. p. 58—82, and in the three tables XI, XII and XIII we give mean monthly figures for A. S. for each of the 11 years of the epoch 1923—33 for *D*, *H* and *V*, respectively. Below we have the mean figures for the entire epoch and in the last column to the right we have the mean annual figure.

Absolute Storminess (defined as the numerical sum of the figures for P.S and N.S. during 24 hours). According to *R. f. D.* we use A.S. equal to (P.S. + N.S.) as an expression for the magnetic activity for the day in question, and the variation of these figures has been supposed more or less to correspond to that of the commonly used character numbers.

The figures of the three tables XI, XII and XIII have been plotted in Fig. 6. For comparison we have added corresponding graphs for the international magnetic character numbers according to VAN DIJK,[1] the graph marked I.M. Ch. Comparison

[1] Terrestrial Magnetism and Atmospheric Electricity 1924—34.

Table XI. Absolute Storminess for Declination.

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	M
1923	84.5	146.3	136.1	120.9	113.9	141.9	104.2	85.4	139.3	152.5	83.6	89.7	116.5
1924	133.2	104.8	139.4	90.6	105.4	161.4	135.1	98.3	152.3	116.6	110.7	85.1	119.4
1925	117.2	103.7	129.2	148.0	143.9	215.3	149.1	197.8	204.7	244.0	170.3	151.3	164.5
1926	247.2	284.9	259.6	284.2	185.4	183.0	172.8	162.1	254.7	315.5	141.1	132.2	218.6
1927	223.0	173.8	259.1	199.3	184.2	176.9	180.4	195.1	212.7	279.1	129.5	196.9	200.0
1928	146.3	170.2	187.9	186.0	238.0	198.9	305.5	197.6	234.0	253.6	231.1	171.5	210.0
1929	154.3	260.8	255.7	166.2	173.4	178.5	238.6	177.0	273.5	298.9	223.4	249.9	220.8
1930	243.8	280.4	255.8	318.0	246.2	247.5	251.6	262.6	265.6	303.1	230.7	195.0	258.4
1931	166.3	190.3	169.2	134.7	149.1	165.4	164.4	195.2	221.2	285.0	227.5	212.8	190.1
1932	202.4	229.7	315.2	238.6	218.1	133.4	148.3	170.7	204.1	202.0	160.8	183.2	200.5
1933	176.2	222.1	206.5	211.3	207.4	171.4	152.6	195.7	197.1	169.6	182.8	156.0	187.4
M	172.2	197.0	210.3	190.7	178.6	179.4	182.1	176.1	214.5	238.2	172.0	165.8	189.7

Table XII. Absolute Storminess for Horizontal Intensity.

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	M
1923	82.7	145.7	185.8	122.1	159.4	199.1	153.5	148.0	212.9	276.5	101.2	102.9	157.5
1924	147.0	173.4	118.8	100.9	148.9	304.4	137.1	120.9	167.0	123.3	125.6	80.0	145.6
1925	140.1	99.9	105.9	138.1	218.3	329.9	198.8	245.4	368.0	423.4	221.3	138.1	218.9
1926	418.2	477.8	522.6	493.9	439.4	364.8	285.9	231.7	648.8	961.5	150.2	149.9	428.7
1927	208.9	274.3	433.9	403.8	399.5	220.5	282.0	447.3	245.4	528.8	168.5	241.0	321.2
1928	106.2	165.0	230.4	224.8	704.2	357.2	535.3	405.4	465.4	385.5	266.1	143.9	332.4
1929	171.7	604.8	616.3	337.7	235.2	276.7	443.2	357.8	298.5	358.8	312.6	306.9	260.0
1930	232.5	356.4	429.9	721.1	770.3	657.7	426.3	482.4	525.8	473.3	247.0	257.8	465.0
1931	140.9	194.0	176.8	146.4	194.0	232.4	216.7	239.9	291.8	456.3	218.9	177.5	223.8
1932	159.7	189.0	356.8	390.6	491.4	214.9	168.0	265.0	244.8	218.5	120.8	192.9	251.0
1933	150.6	189.4	229.8	238.2	380.3	210.0	175.0	212.1	301.3	169.4	143.1	131.9	210.9
M	178.0	260.9	309.7	301.6	376.4	306.1	274.7	286.9	342.7	396.9	188.7	174.8	283.1

Table XIII. Absolute Storminess for Vertical Intensity.

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	M
1923	94.9	141.1	110.2	130.7	145.3	167.1	217.5	*190.0	*220.0	*270.0	107.1	93.3	157.3
1924	224.2	131.9	196.3	88.4	115.0	141.2	131.8	82.1	164.6	168.6	141.9	106.6	141.0
1925	101.0	189.4	129.1	189.7	244.3	344.0	207.3	228.7	313.0	423.2	142.0	153.3	222.1
1926	220.0	403.1	591.9	450.7	485.2	285.1	230.9	262.5	483.0	836.9	265.5	188.1	391.9
1927	231.0	287.6	501.7	299.7	306.9	181.8	169.0	318.2	362.5	407.6	116.5	244.1	285.6
1928	176.0	316.9	256.9	332.3	472.7	313.7	382.0	320.7	336.8	329.8	296.8	168.5	308.6
1929	141.2	460.1	519.3	253.0	219.8	248.6	311.1	229.3	395.8	412.2	382.6	354.4	327.3
1930	257.5	332.6	454.2	242.3	488.3	737.8	237.5	501.0	358.0	367.6	250.0	219.2	370.5
1931	142.2	271.2	195.7	163.2	156.1	252.0	230.8	290.8	391.5	515.9	293.6	240.6	262.0
1932	222.4	299.3	483.1	438.4	568.9	146.7	194.8	226.9	362.7	297.4	182.4	221.5	303.5
1933	211.3	333.5	348.6	413.5	235.8	198.4	132.3	237.7	334.1	255.6	197.1	143.8	253.5
M	183.8	287.9	344.3	272.9	312.6	274.2	222.3	262.5	338.4	389.5	216.0	193.9	274.9

* Interpolated values. The value for October 1926 has been raised with 500 γ because the very large perturbations for the 15the and 16th are missing in the table for *V* in *R. f. D.* (page 72).

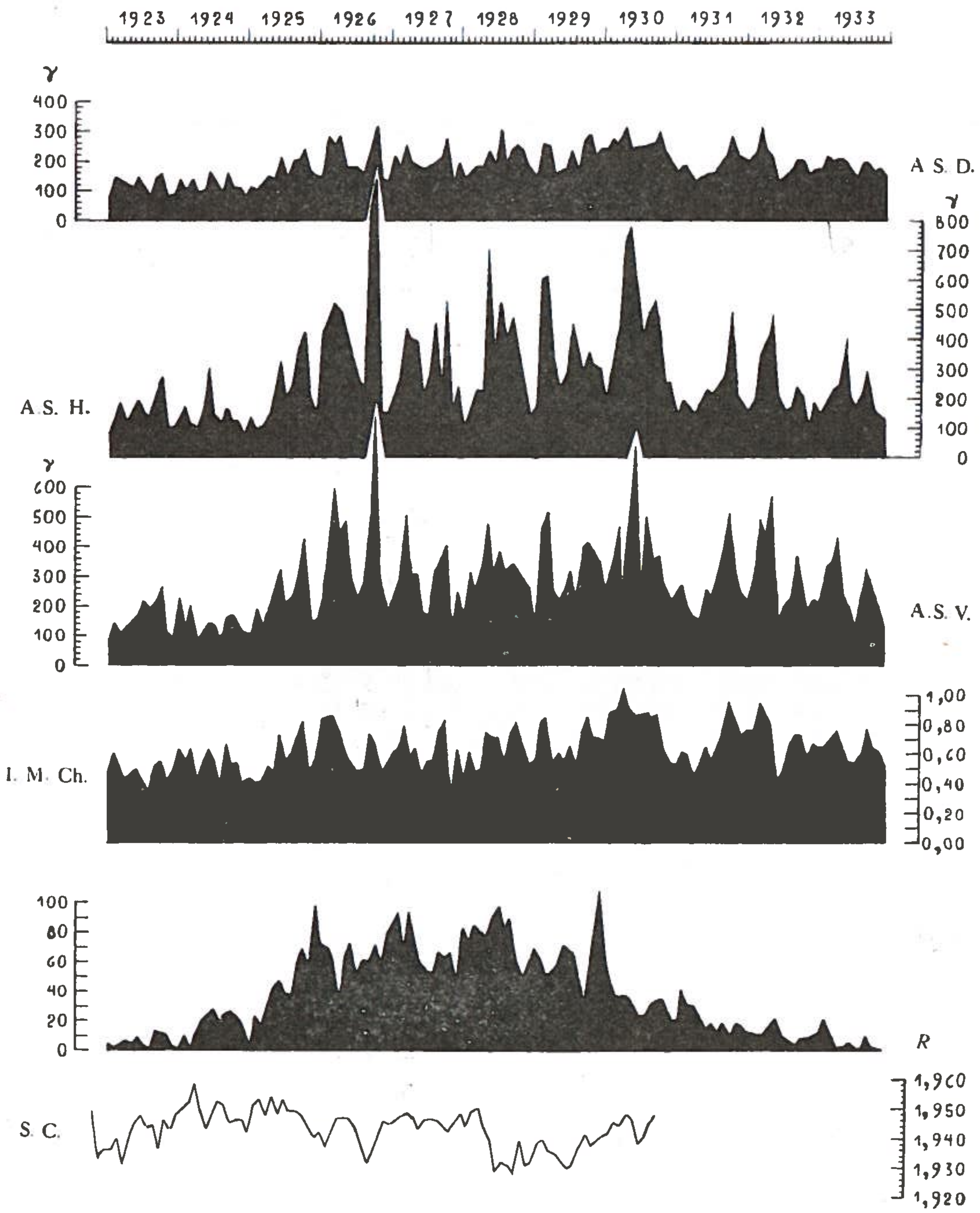


Fig. 6. Graphs for the variation of absolute storminess, A.S., for *D*, *H* and *V* for Dombås for the epoch 1923—33 compared with corresponding figures for the international character numbers according to van Dijk. The two curves at the bottom, R, and S.C. represent the sunspot data, according to Wolfer and the data for the solar constant, according to Abbot, respectively.

shows that there is good agreement between the curve for I.M. Ch. and A.S. for declination, while the variation of A.S. for *H* and *V* give a picture of quite another character, in spite of a certain similarity in the distribution of positive and negative oscillations. Below we have added corresponding curves for the sunspot data, according to Wolfer and data for the solar constant, according to Abbot. It will be noticed that there is

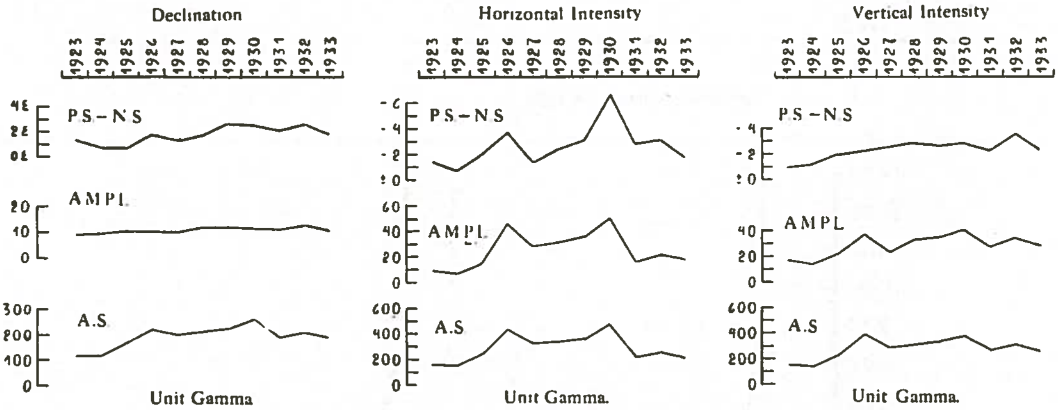


Fig. 7. Annual mean storminess for *D*, *H* and *V* for Dombås for the years 1923 to 1933.

small agreement in the variation of the three curves for A.S. and that of the international character numbers, when compared with the curves for the sunspot data, or that for the solar constant.

In Fig. 7 we find the annual mean values for A.S. for *D*, *H* and *V* plotted — the curves at the bottom. The curves in the middle, marked *Ampl.* represent the amplitude in the diurnal variation of annual mean values for storminess, extracted from the curves given on page 24. These figures are stated in Table XIV.

Table XIV.

Year	*D*	*H*	*V*
1923	9.0	8.8	16.9
1924	9.2	7.0	13.9
1925	10.3	15.1	21.4
1926	10.0	44.7	37.3
1927	9.5	27.7	24.5
1928	11.4	30.9	33.5
1929	11.6	35.9	35.0
1930	11.2	50.7	41.3
1931	10.4	16.1	27.4
1932	12.1	21.2	33.7
1933	10.6	17.7	28.0

Table XV.

Year	*D*	*H*	*V*
1923	1.1 E	— 1.5	— 0.9
1924	0.6 »	— 0.9	— 1.1
1925	0.5 »	— 1.9	— 1.9
1926	1.5 »	— 3.7	— 2.2
1927	1.1 »	— 1.3	— 2.5
1928	2.3 »	— 2.3	— 2.8
1929	2.4 »	— 3.1	— 2.6
1930	2.3 »	— 6.6	— 2.9
1931	1.9 »	— 3.1	— 2.2
1932	2.3 »	— 3.1	— 3.6
1933	1.6 »	— 1.7	— 2.3

Finally we have plotted the figures given in Table XV — representing the annual mean in the last column to the right of the tables in *R. f. D.* p. p. 39—55. These figures give the arithmetical mean annual value for storminess for *D*, *H* and *V*, which, as mentioned, are for *H* and *V* negative all the time and easterly directed for *D*.

A comparison between the curves given in Fig. 7 and a curve plotted with annual mean values for the sunspot data show plainly that the 11-year period in these magnetic data is very faint, if represented at all, while corresponding annual means in the amplitude of the diurnal variation of quiet days (cp. Fig. 2) shows very good parallelism with the sunspot data. The variation of the curves in Fig. 7 is most characteristic for horizontal intensity, and seems to indicate a 4-year period. There seems to be a certain connection between the frequency in the aurora aborealis phenomena and the varia-

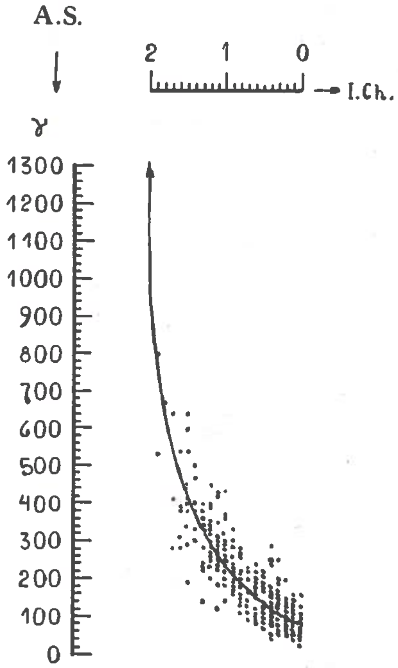


Fig. 8. Curve giving the relation between absolute storminess, A.S. for declination at Dombås for the year 1933 and corresponding data for the international magnetic character numbers, I. Ch., according to VAN DIJK.

tion of these data for A.S., but not having the necessary statistic data for the aurora at hand, the question has to be postponed to a later occasion.

Regarding the good parallelism mentioned in the variation og A.S. for declination and that of the international magnetic character numbers, I have in Fig. 8 plotted corresponding data for the two elements day by day the year 1933 in relation to each other. The scale for A.S. vertically to the left and that of I. Ch. horizontally above. The curved line through the black points gives the average relation between the two sets of data. From this curve I have extracted figures for A.S. corresponding to every tenth of the used unit for the international character numbers from 0.0 to 2.0, and entered in Table XVI.

Table XVI.

Character	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.0	80	90	100	110	120	130	150	170	190	210
1.0	240	270	300	340	380	420	480	560	660	790
2.0	920									

Dombås. Declination. Storminess (+ W). Unit Gamma. P.S. *Gr. M. T.*

1923-1933	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		MEAN
JAN	1.4	1.9	1.8	1.5	1.8	2.3	2.8	3.0	3.3	3.0	3.0	2.9	3.4	3.2	3.2	3.3	3.5	3.2	1.9	1.2	0.8	0.4	0.6	0.9	2.3
FEB	2.1	2.5	2.5	2.2	2.5	2.5	3.5	3.4	3.8	3.2	3.1	3.5	3.6	4.5	4.8	4.4	3.9	3.5	2.9	1.2	1.1	0.7	0.8	1.2	2.8
MAR	2.5	3.1	2.5	2.1	2.8	3.8	4.3	3.9	4.1	4.0	3.8	4.1	4.5	4.8	4.9	4.6	3.4	2.5	2.0	1.5	0.5	0.5	1.4	1.6	3.0
APR	2.7	2.9	2.9	3.0	3.2	3.3	3.5	3.5	3.2	2.2	2.9	3.0	3.9	4.0	4.1	4.3	3.5	2.5	1.8	1.6	1.3	1.1	2.0	2.7	2.9
MAY	2.9	4.1	3.9	3.5	4.0	4.8	5.2	4.6	3.4	2.8	3.1	3.5	3.3	3.8	4.5	5.2	5.7	4.9	3.0	2.6	2.5	2.0	2.2	2.5	3.7
JUN	3.5	3.6	3.3	4.4	4.7	5.9	5.4	4.6	4.1	2.6	2.6	3.3	3.5	4.5	5.6	5.6	6.2	5.8	5.1	3.9	3.2	2.6	2.4	2.7	4.1
JUL	3.5	3.7	3.5	3.1	4.2	4.9	5.6	5.0	4.5	3.1	3.7	4.2	3.6	3.6	4.3	3.8	4.3	4.5	4.5	3.8	3.0	2.7	2.6	2.8	3.9
AUG	3.6	3.5	3.6	3.2	4.4	5.1	5.2	5.0	3.9	3.5	3.1	3.5	3.7	3.7	3.8	3.5	3.1	3.0	2.3	1.8	1.6	1.5	1.5	2.1	3.3
SEP	2.6	3.4	3.4	3.6	5.1	5.9	5.7	5.3	4.6	3.7	4.1	4.3	4.3	4.5	4.5	4.4	3.2	2.8	2.0	1.5	0.8	1.2	1.3	2.1	3.5
OCT	3.3	3.5	3.7	4.3	5.8	6.4	7.1	5.9	4.3	3.8	3.7	3.8	3.8	4.6	4.1	4.0	3.4	2.7	2.4	1.3	0.5	1.1	1.2	1.5	3.6
NOV	1.5	2.4	2.1	2.0	3.0	4.2	4.6	4.6	3.4	2.7	2.9	2.8	3.3	3.3	3.7	3.4	3.7	3.1	2.1	1.4	0.9	0.5	0.6	1.5	2.6
DEC	1.5	2.1	2.3	1.8	2.5	2.9	3.9	4.2	2.9	2.4	2.3	2.0	2.6	3.2	3.9	3.8	3.8	3.5	2.2	1.0	0.6	0.4	0.5	0.8	2.4
MEAN	2.6	3.1	3.0	2.9	3.7	4.3	4.7	4.4	3.8	3.1	3.2	3.4	3.6	4.0	4.3	4.2	4.0	3.5	2.7	1.9	1.4	1.2	1.4	1.9	3.2

Dombås. Declination. Storminess (+ W). Unit Gamma. N.S. *Gr. M. T.*

1923-1933	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		MEAN
JAN	8.3	6.8	4.6	4.0	2.8	1.8	1.5	1.2	1.4	1.6	1.5	1.8	1.5	2.0	2.4	3.2	3.3	4.5	6.8	7.3	10.6	11.6	11.7	9.7	4.7
FEB	8.9	7.5	6.5	5.9	4.2	2.9	1.5	1.3	1.5	1.5	1.4	1.7	1.9	1.7	2.6	2.8	5.0	6.3	8.7	10.9	10.4	11.6	10.6	10.7	5.4
MAR	7.5	8.2	7.2	6.4	4.6	2.5	1.8	1.6	1.7	2.1	1.6	1.8	2.0	2.3	2.6	3.7	4.2	7.3	8.1	8.8	10.5	12.2	10.4	8.9	5.3
APR	7.9	7.8	7.0	5.4	3.7	3.1	2.5	2.5	2.8	3.3	3.1	3.2	3.4	2.9	3.3	2.9	3.1	4.1	5.6	7.2	10.0	10.0	9.0	8.0	5.1
MAY	7.4	6.8	4.9	4.4	4.5	3.3	2.8	2.7	2.7	3.0	2.6	2.9	3.2	3.3	2.4	1.7	1.9	1.8	3.3	4.2	4.7	5.8	6.5	6.8	3.9
JUN	6.8	7.5	5.5	4.3	3.6	2.6	2.5	2.7	3.3	3.5	3.4	3.5	3.5	3.2	2.6	1.9	1.6	1.4	1.9	2.5	3.1	3.7	5.5	5.4	3.6
JUL	5.4	5.5	5.9	5.7	4.6	3.4	2.9	3.4	3.1	3.7	3.5	3.5	3.5	3.6	3.0	3.4	2.9	2.4	2.5	3.4	3.7	4.4	4.6	4.1	3.8
AUG	6.2	6.5	5.8	4.5	3.6	2.4	2.5	2.8	2.7	2.9	2.6	2.9	2.9	3.0	3.5	3.6	3.6	3.4	3.9	5.1	5.5	5.4	5.3	5.5	4.0
SEP	8.3	8.1	7.3	5.5	3.6	2.1	1.9	1.8	2.0	2.2	2.4	2.3	2.5	2.5	2.8	3.4	4.5	6.2	7.5	8.9	10.8	12.1	11.2	10.2	5.4
OCT	10.3	8.9	6.8	4.0	2.5	2.1	1.5	1.6	2.5	2.5	2.6	2.7	2.8	2.6	3.8	4.8	6.5	7.8	8.7	12.4	14.2	15.1	14.4	10.7	6.4
NOV	6.6	5.5	4.6	4.0	2.5	1.8	1.2	1.0	1.2	1.5	1.3	1.2	1.6	2.1	2.0	3.3	4.3	6.4	6.4	7.8	10.3	11.6	10.6	8.0	4.4
DEC	7.2	5.5	4.1	3.6	2.6	1.6	1.0	0.7	1.2	1.4	1.5	1.8	2.2	1.7	2.5	3.5	3.6	4.6	6.0	8.8	10.6	12.1	11.4	9.5	4.5
MEAN	7.6	7.0	5.8	4.8	3.6	2.5	2.0	1.8	2.2	2.4	2.3	2.4	2.6	2.6	2.9	3.2	3.7	4.7	5.8	7.3	8.7	9.6	9.3	8.1	4.7

Dombås. Declination. Storminess (+ W). Unit Gamma. P.S.– N.S. *Gr. M. T.*

1923-1933	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		MEAN	AMP.
JAN	-6.9	-4.9	-2.8	-2.5	-1.0	0.5	1.3	1.8	1.9	1.4	1.5	1.1	1.9	1.2	0.8	0.1	0.2	-1.3	-4.9	-6.1	-9.8	-11.2	-11.1	-8.8	-2.4	13.1
FEB	-6.8	-5.0	-4.0	-3.7	-1.7	-0.4	2.0	2.1	2.3	1.7	1.7	1.8	1.7	2.8	2.2	1.6	-1.1	-2.8	-5.8	-9.7	-9.3	-10.9	-9.8	-9.5	-2.5	13.7
MAR	-5.0	-5.1	-4.7	-4.3	-1.8	1.3	2.5	2.3	2.4	1.9	2.2	2.3	2.5	2.5	2.3	0.9	-0.8	-4.8	-6.1	-5.3	-10.0	-11.7	-9.0	-7.3	-2.2	14.2
APR	-5.2	-4.9	-4.1	-2.4	-0.5	0.2	1.0	1.0	0.4	-1.1	-0.2	-0.2	0.5	1.1	0.8	1.4	0.4	-1.6	-3.8	-5.6	-8.7	-8.9	-7.0	-5.3	-2.2	10.3
MAY	-4.5	-2.7	-1.0	-0.9	-0.5	1.5	2.4	1.9	0.7	-0.2	0.5	0.6	0.1	0.5	2.1	3.5	3.8	3.1	-0.3	-1.6	-2.2	-3.8	-4.3	-4.3	-0.2	8.3
JUN	-3.3	-3.9	-2.2	0.1	1.1	3.3	2.9	1.9	0.8	-0.9	-0.8	-0.2	0.0	1.3	3.0	3.7	4.6	4.4	3.2	1.4	0.1	-1.1	-3.1	-2.7	0.6	8.5
JUL	-1.9	-1.8	-2.4	-2.6	-0.4	1.5	2.7	1.6	1.4	-0.6	0.2	0.7	0.1	0.0	1.3	0.4	1.4	2.1	2.0	0.4	-0.7	-1.7	-2.0	-1.3	0.0	4.7
AUG	-2.6	-3.0	-2.2	-1.3	0.8	2.7	2.7	2.2	1.2	0.6	0.5	0.6	0.8	0.7	0.3	-0.1	-0.5	-0.4	-1.6	-3.3	-3.9	-3.9	-3.8	-3.4	-0.7	6.6
SEP	-5.7	-4.7	-3.9	-1.9	1.5	3.8	3.8	3.5	2.6	1.5	1.7	2.0	1.8	2.0	1.7	1.0	-1.3	-3.4	-5.5	-7.4	-10.0	-10.9	-9.9	-8.1	-1.9	14.7
OCT	-7.0	-5.4	-3.1	0.3	3.3	4.3	5.6	4.3	1.8	1.3	1.1	1.1	1.0	2.0	0.3	-0.8	-3.1	-5.1	-6.3	-11.1	-13.7	-14.0	-13.2	-8.9	-2.7	19.6
NOV	-5.1	-3.1	-2.5	-2.0	0.5	2.4	3.4	3.6	2.2	1.2	1.6	1.6	1.7	1.2	1.7	0.1	-0.6	-3.3	-4.3	-6.4	-9.5	-11.1	-10.0	-6.5	-1.8	14.7
DEC	-5.7	-3.4	-1.8	-1.8	-0.1	1.3	2.9	3.5	1.7	1.0	0.7	0.2	0.4	1.5	1.4	0.3	0.2	-1.1	-3.8	-7.8	-10.0	-11.7	-10.9	-8.7	-2.2	15.2
MEAN	-5.0	-3.9	-2.8	-1.9	0.1	1.8	2.7	2.6	1.6	0.7	0.9	1.0	1.0	1.4	1.5	1.0	0.3	-1.2	-3.1	-5.4	-7.3	-8.4	-7.9	-6.2	-1.5	11.9

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

1923-1933	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		MEAN
JAN	0.8	0.9	0.9	1.3	1.5	2.2	2.2	2.2	2.0	2.0	2.3	2.2	2.3	2.7	2.5	2.6	2.5	2.6	3.1	2.5	2.0	1.5	2.0	1.6	2.0
FEB	1.1	0.9	0.7	0.8	1.4	1.6	2.4	2.1	2.0	2.4	3.2	3.5	4.4	5.9	6.8	6.5	7.4	6.4	7.1	3.8	2.4	1.9	2.2	1.9	3.3
MAR	1.3	0.8	0.8	1.0	1.3	1.8	2.0	2.2	1.8	2.3	3.3	4.9	7.5	10.6	13.3	15.3	13.2	10.5	8.3	4.2	3.5	2.8	2.2	1.9	4.9
APR	1.3	1.1	0.8	0.7	1.5	1.9	1.7	2.0	1.7	2.3	3.7	5.7	8.2	11.2	13.0	12.0	13.9	12.5	8.4	4.5	2.6	1.9	1.7	2.0	4.8
MAY	1.5	1.1	0.9	1.1	1.1	1.3	1.6	2.6	2.4	3.2	4.5	7.1	10.9	13.0	14.3	17.2	18.5	16.5	12.6	7.8	3.9	2.4	1.9	1.7	6.3
JUN	1.7	1.4	1.3	1.3	1.2	1.5	1.7	2.5	2.5	3.5	4.5	5.9	8.3	10.6	13.8	16.6	15.8	13.5	11.5	7.9	4.7	2.9	2.3	1.9	5.8
JUL	1.9	1.5	1.2	1.9	1.8	1.8	2.0	2.8	3.0	3.5	4.0	5.5	8.2	11.5	12.7	13.0	12.0	12.2	10.9	7.7	4.4	3.2	2.6	2.4	5.5
AUG	1.8	1.5	1.5	1.7	2.1	2.3	2.0	2.3	2.0	2.8	3.5	5.4	7.7	11.5	13.8	13.1	12.9	12.4	8.9	5.0	3.5	2.5	2.7	2.0	5.2
SEP	1.7	1.6	1.7	2.3	2.9	3.3	3.3	3.3	2.8	3.4	4.1	5.6	8.8	12.9	15.1	17.3	16.0	13.9	5.7	3.8	3.6	2.9	2.5	2.2	5.9
OCT	1.7	1.4	1.3	1.7	2.2	3.2	3.4	3.5	2.3	2.6	3.4	5.7	9.4	11.3	13.9	13.8	13.5	10.9	5.9	3.3	2.3	2.2	2.1	2.0	5.1
NOV	1.3	0.9	0.8	1.3	1.5	2.0	2.1	2.3	2.1	2.1	2.0	2.6	3.2	4.2	4.1	5.3	5.8	5.6	4.5	3.1	1.8	1.8	1.7	1.5	2.6
DEC	1.3	1.1	1.1	1.2	2.2	2.3	2.5	2.6	2.3	2.4	2.7	2.5	2.7	3.3	4.2	4.7	5.9	4.7	4.8	3.6	2.4	2.1	2.1	1.6	2.8
MEAN	1.4	1.2	1.1	1.3	1.7	2.1	2.2	2.5	2.2	2.7	3.4	4.7	6.8	9.0	10.8	11.2	11.4	10.1	7.6	4.8	3.1	2.4	2.2	1.9	4.5

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

1923-1933	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		MEAN
JAN	11.2	10.5	8.3	5.5	3.5	3.0	2.8	2.8	3.7	3.8	3.7	3.8	2.9	2.6	2.9	3.4	3.7	3.7	4.2	5.5	7.1	7.8	9.8	9.6	5.2
FEB	17.1	15.6	15.5	10.1	7.8	5.3	4.7	3.7	5.1	4.8	3.6	3.6	2.9	2.5	2.4	2.4	2.8	3.3	3.7	4.7	8.9	12.3	17.1	17.9	7.4
MAR	20.8	22.5	17.1	15.4	11.4	9.5	7.5	5.9	6.4	5.4	4.3	2.5	1.6	1.4	1.4	1.3	1.6	2.0	1.8	3.5	9.1	11.6	13.8	15.4	8.0
APR	12.7	15.9	15.7	12.7	9.7	6.9	6.1	6.2	7.1	6.0	4.6	3.0	2.3	1.7	1.7	1.9	1.9	1.5	1.4	2.5	5.4	10.0	13.5	16.4	7.2
MAY	22.7	23.5	17.5	17.1	15.4	10.9	9.9	8.2	5.7	4.6	3.5	3.5	3.9	2.5	2.0	2.3	1.9	1.3	1.2	3.5	8.2	14.3	22.6	21.5	9.4
JUN	16.7	16.2	14.4	11.6	10.4	8.4	7.5	5.7	6.5	4.6	4.2	3.4	1.9	2.2	1.7	2.0	2.2	2.1	1.6	2.6	3.8	6.5	14.3	15.4	6.9
JUL	11.6	11.0	9.8	12.5	9.7	8.2	9.4	6.9	6.5	6.6	4.6	3.9	2.4	2.0	2.2	2.2	2.2	2.1	1.8	1.9	3.1	5.3	8.5	10.4	6.0
AUG	15.9	16.7	16.1	10.4	8.1	7.5	7.6	7.2	6.7	5.5	3.9	3.3	2.5	1.4	1.1	1.9	2.3	2.6	2.5	2.5	3.3	7.5	10.1	13.7	6.7
SEP	18.4	19.9	17.1	12.4	10.4	10.4	9.5	8.1	7.8	6.4	5.5	3.9	2.2	1.9	1.6	2.4	2.4	2.4	2.7	6.4	10.8	15.2	16.9	17.0	8.8
OCT	22.7	20.7	15.7	12.5	9.4	7.8	7.9	6.5	7.4	6.2	4.5	2.9	2.2	1.7	2.0	2.3	2.9	3.2	5.5	11.7	17.5	19.5	23.5	23.8	10.0
NOV	11.0	9.4	6.4	6.2	4.8	4.3	3.5	3.5	4.5	4.1	3.6	2.8	2.4	2.5	2.7	3.3	2.9	3.3	5.0	5.5	7.5	8.2	8.7	8.7	5.2
DEC	7.7	7.5	5.6	4.7	4.1	3.0	3.0	3.2	3.7	3.3	2.5	3.1	2.8	2.5	2.8	3.2	3.7	3.6	4.0	5.3	6.2	7.6	7.4	6.2	4.5
MEAN	16.5	15.8	13.3	10.9	8.7	7.1	6.6	5.7	5.9	5.1	4.1	3.2	2.3	2.1	2.0	2.4	2.5	2.6	3.0	4.6	7.6	10.5	13.8	14.7	7.1

Dombås. Horizontal Intensity. Storminess (+ N). Unit Gamma. P.S.– N.S. *Gr. M. T.*

1923-1933	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		MEAN	AMP
JAN	-10.4	-9.6	-7.4	-4.2	-2.0	-0.8	-0.6	-0.6	-1.7	-1.8	-1.4	-1.6	-0.6	0.1	-0.4	-0.8	-1.2	-1.1	-1.1	-3.0	-4.9	-6.3	-7.8	-8.0	-3.2	10.1
FEB	-16.0	-14.7	-14.8	-9.3	-6.4	-3.7	-2.3	-1.6	-3.1	-2.4	-0.4	-0.1	1.5	3.4	4.4	4.1	4.6	3.1	3.4	-0.9	-6.5	-10.4	-14.9	-16.0	-4.1	20.6
MAR	-19.5	-21.7	-16.3	-14.4	-10.1	-7.7	-5.5	-3.7	-4.6	-3.1	-1.0	2.4	5.9	9.2	11.9	14.0	11.6	8.5	6.5	0.7	-5.6	-8.8	-11.6	-13.5	-3.1	35.7
APR	-17.4	-14.8	-14.9	-12.0	-8.2	-5.0	-4.4	-4.2	-5.4	-3.7	-0.9	2.7	5.9	9.5	11.3	10.1	11.0	11.0	7.0	2.0	-2.8	-8.1	-11.8	-14.4	-2.4	28.4
MAY	-21.2	-22.4	-16.6	-16.0	-14.3	-9.6	-8.3	-5.6	-3.3	-1.4	1.0	4.6	9.0	10.5	14.3	14.9	16.6	15.2	11.4	4.3	-4.3	-11.9	-20.7	-19.8	-3.1	39.0
JUN	-15.0	-14.8	-13.1	-10.3	-9.2	-6.9	-5.8	-3.2	-4.0	-1.1	0.3	2.5	6.4	8.4	12.1	14.6	13.6	11.4	9.9	5.3	0.9	-3.6	-12.0	-13.5	-1.1	29.6
JUL	-9.7	-9.5	-8.6	-10.6	-7.9	-6.4	-7.4	-4.1	-3.5	-3.1	-0.6	1.6	5.8	9.5	10.5	10.8	9.8	10.1	9.1	5.8	1.3	-2.1	-5.9	-9.0	-0.5	21.4
AUG	-14.1	-15.2	-14.6	-8.7	-6.0	-5.2	-5.6	-4.9	-4.7	-2.7	-0.4	2.1	5.2	10.1	12.7	11.2	10.6	9.8	6.4	2.5	0.2	-5.0	-7.4	-11.7	-1.5	27.9
SEP	-16.7	-18.3	-16.4	-10.1	-7.5	-7.1	-6.2	-4.8	-5.0	-3.0	-1.4	1.7	6.6	11.0	13.5	14.9	13.6	11.5	3.0	-2.6	-7.0	-12.3	-14.4	-14.8	-2.9	33.2
OCT	-22.0	-19.3	-14.4	-10.8	-7.2	-4.6	-4.5	-3.0	-5.1	-3.6	-1.1	2.8	7.2	9.6	11.9	11.6	10.6	7.7	0.4	-8.4	-15.2	-17.3	-21.4	-21.8	-4.9	33.9
NOV	-9.7	-8.5	-5.6	-4.9	-3.3	-2.3	-1.4	-1.2	-2.4	-2.0	-1.6	-0.2	0.8	1.7	1.4	2.0	2.9	2.3	-0.5	-2.4	-5.7	-6.4	-7.0	-7.2	-2.6	12.6
DEC	-6.4	-6.4	-4.5	-3.5	-1.9	-0.7	-0.5	-0.6	-1.4	-0.9	-0.1	-0.6	-0.1	0.8	1.4	1.5	2.1	1.1	0.8	-1.7	-3.8	-5.5	-6.3	-4.6	-1.7	8.5
MEAN	-15.1	-14.6	-12.2	-9.6	-7.0	-5.0	-4.4	-3.2	-3.7	-2.4	-0.7	1.5	4.5	6.9	8.8	8.8	8.9	7.5	4.6	0.2	-4.5	-8.1	-11.6	-12.8	-2.6	25.1

Dombås. Vertical Intensity. Storminess (+ Down). Unit Gamma. P.S. *Gr. M. T.*

1923-1933		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
JAN	1.1	0.7	0.6	0.6	0.8	0.5	0.9	1.5	1.8	2.5	3.0	3.2	3.8	5.1	6.7	8.3	8.5	9.4	10.3	7.1	5.4	3.3	2.1	1.5	3.7
FEB	1.2	1.1	0.9	0.9	1.1	1.2	1.5	2.2	2.6	3.5	4.0	4.9	5.8	8.3	11.1	13.4	14.3	13.4	13.6	11.8	9.0	5.5	2.7	1.7	5.7
MAR	0.5	0.5	0.5	0.6	0.9	1.0	1.6	2.5	3.8	5.0	5.5	6.3	8.4	9.7	11.8	13.8	15.4	15.4	11.8	8.4	5.0	2.7	1.5	1.0	5.6
APR	0.7	0.5	0.6	0.7	0.9	1.0	1.5	1.8	2.2	3.4	4.7	6.0	6.7	8.1	9.8	10.8	11.2	9.8	8.5	5.3	2.9	1.5	0.9	0.5	4.2
MAY	1.2	0.8	0.9	1.2	1.2	1.5	1.8	2.1	2.3	3.7	5.5	6.1	7.3	9.4	10.9	10.8	11.2	9.7	7.7	5.4	3.9	2.5	1.6	1.5	4.6
JUN	0.9	1.0	0.8	0.8	0.8	0.9	0.9	1.7	2.4	3.3	3.8	4.5	6.4	7.5	9.4	11.0	10.6	8.8	6.6	4.5	3.0	1.6	1.4	1.2	3.9
JUL	0.8	1.0	0.9	0.8	1.1	1.0	1.4	1.7	2.3	3.2	4.3	4.7	6.0	7.8	8.7	8.8	8.4	7.5	6.1	4.0	2.5	2.0	1.2	0.8	3.6
AUG	0.8	0.7	0.7	0.9	0.9	0.9	1.5	2.0	2.9	3.9	4.9	5.8	6.5	9.0	10.3	11.1	10.6	9.6	7.6	5.3	3.2	2.3	1.5	1.1	4.3
SEP	1.0	0.9	1.2	1.3	1.1	1.3	1.7	2.4	2.5	3.5	5.1	6.5	8.4	10.4	11.4	15.1	15.0	12.4	9.4	5.9	3.7	2.2	1.2	0.9	5.2
OCT	0.9	0.9	0.6	0.6	0.8	0.9	1.4	2.0	3.4	5.0	6.2	7.8	10.3	12.1	13.5	13.9	14.7	14.5	9.8	7.0	3.9	2.6	1.2	1.4	5.6
NOV	0.5	0.4	0.5	0.5	0.6	0.6	1.0	1.7	2.4	3.4	4.4	4.9	6.0	7.8	9.7	12.3	11.6	10.5	8.7	7.7	5.1	2.7	1.7	1.1	4.4
DEC	0.9	0.9	1.0	0.8	0.8	0.9	0.9	1.3	1.7	2.4	3.3	3.7	4.6	6.2	8.5	9.4	9.7	10.2	9.5	8.7	5.6	3.2	2.0	1.5	4.1
MEAN	0.9	0.8	0.8	0.8	0.9	1.0	1.3	1.9	2.5	3.6	4.6	5.4	6.7	8.4	10.2	11.5	11.8	10.9	9.1	6.8	4.4	2.6	1.6	1.2	4.6

Dombås. Vertical Intensity. Storminess (+ Down). Unit Gamma. N.S. *Gr. M. T.*

1923-1933		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN
JAN	10.1	10.8	10.5	8.6	6.5	5.2	4.1	3.0	2.2	1.6	1.4	1.4	1.1	0.9	0.9	1.0	1.1	1.1	0.8	1.4	2.1	3.9	6.2	9.8	4.0
FEB	15.9	15.5	14.7	13.6	10.9	8.5	6.5	4.6	3.7	2.6	2.3	1.9	1.6	1.4	1.5	1.5	1.2	1.6	1.4	1.5	3.5	6.9	12.4	15.6	6.3
MAR	25.5	24.2	19.3	17.1	14.4	11.1	7.5	4.5	3.3	2.5	2.0	2.1	1.8	1.4	1.3	1.4	1.5	2.0	2.5	3.2	7.1	10.5	18.4	22.6	8.6
APR	25.2	22.5	18.6	15.0	12.9	8.7	6.7	4.5	3.2	2.2	1.6	1.6	1.6	1.1	1.1	1.2	1.3	1.3	1.7	3.1	6.4	13.0	18.7	24.8	8.3
MAY	21.6	22.5	19.6	16.5	14.2	10.6	6.7	4.2	3.3	2.6	2.3	2.1	1.9	1.5	1.5	1.9	1.6	1.8	2.1	2.9	4.4	9.3	14.7	18.2	7.8
JUN	19.2	18.5	16.8	13.9	10.9	8.2	5.7	4.0	3.1	2.4	2.1	1.9	1.5	1.4	1.5	1.7	1.5	1.7	1.8	2.8	4.3	7.6	12.6	17.4	6.8
JUL	14.2	13.6	12.7	11.5	10.1	7.8	5.5	3.8	2.8	1.7	1.6	1.5	1.5	1.5	1.3	1.4	1.4	1.3	1.8	2.2	3.1	4.8	8.3	11.5	5.3
AUG	21.1	20.5	18.2	14.7	11.5	8.7	6.2	4.7	3.6	2.4	2.1	2.1	1.8	1.4	1.3	1.3	1.7	1.9	1.9	2.6	5.0	8.4	11.8	17.1	7.2
SEP	24.0	23.5	22.1	20.0	15.3	10.7	8.5	5.5	3.6	2.3	2.0	1.9	1.5	1.3	1.5	1.4	1.7	2.0	1.9	2.6	7.6	15.0	21.0	23.4	9.2
OCT	26.2	24.2	18.8	16.8	15.2	11.3	7.8	4.0	2.6	2.1	1.8	1.8	1.4	1.4	1.5	2.5	2.3	2.5	2.8	5.4	10.5	14.7	20.0	23.8	9.2
NOV	13.7	12.3	9.3	7.7	6.5	6.0	4.3	2.9	2.3	1.3	1.2	1.1	1.4	1.1	1.1	1.2	1.3	1.3	1.5	2.2	4.6	8.4	10.9	12.5	4.8
DEC	12.6	12.6	11.2	9.7	8.5	6.8	4.4	3.2	2.4	1.8	1.7	1.5	1.3	1.0	0.9	0.9	1.2	1.5	1.4	1.7	3.4	6.7	9.4	11.7	4.9
MEAN	19.1	18.4	16.0	13.8	11.4	8.6	8.2	4.1	2.8	2.1	1.8	1.7	1.4	1.3	1.3	1.3	1.5	1.7	1.8	2.6	5.2	9.1	13.7	17.4	6.8

Dombås. Vertical Intensity. Storminess (+ Down). Unit Gamma. P.S.– N.S. *Gr. M. T.*

1923-1933		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MEAN	AMP
JAN	-9.0	-10.1	-9.9	-8.0	-5.7	-4.7	-3.2	-1.5	-0.4	0.9	1.6	1.8	2.7	4.2	5.8	7.3	7.4	8.3	9.5	5.7	3.3	-0.6	-4.1	-8.3	-0.3	18.5
FEB	-14.7	-14.4	-13.8	-12.7	-9.8	-7.3	-5.0	-2.4	-1.1	0.9	1.7	3.0	4.2	6.9	9.6	11.9	13.1	11.8	12.2	10.3	5.5	-1.4	-9.7	-13.9	-0.6	27.8
MAR	-25.0	-23.7	-18.8	-16.5	-13.5	-10.1	-5.9	-2.0	0.5	2.5	3.5	4.2	6.6	8.3	10.5	12.4	13.9	13.4	9.3	5.2	-2.1	-7.8	-15.9	-21.6	-3.0	38.9
APR	-24.5	-22.0	-18.0	-14.3	-12.0	-7.7	-5.2	-2.7	-1.0	1.2	3.1	4.4	5.1	7.0	8.7	9.6	9.9	8.5	6.8	2.2	-3.5	-11.5	-17.8	-24.3	-4.1	34.4
MAY	-20.4	-21.7	-18.7	-15.3	-13.0	-9.1	-4.9	-2.1	-1.0	1.1	3.2	4.0	5.4	7.9	9.4	8.9	9.6	7.9	5.6	2.5	-0.5	-6.8	-13.1	-17.7	-3.2	31.3
JUN	-18.3	-17.5	-16.0	-13.1	-10.1	-7.3	-6.8	-2.3	-0.7	0.9	1.7	2.6	4.9	6.1	7.9	9.3	9.1	7.1	4.8	1.7	-1.3	-6.0	-11.2	-16.2	-2.9	27.6
JUL	-13.4	-12.6	-11.8	-10.7	-9.0	-6.8	-4.1	-2.1	-0.5	1.5	2.7	3.2	4.5	6.3	7.4	7.4	7.0	6.2	4.3	1.8	-0.6	-2.8	-7.3	-10.7	-1.7	20.8
AUG	-20.3	-19.8	-17.5	-13.8	-10.6	-7.8	-4.7	-2.7	-0.7	1.5	2.8	3.7	4.7	7.6	9.0	9.8	8.9	7.7	5.7	2.7	-1.8	-6.1	-10.3	-16.0	-2.9	30.1
SEP	-23.9	-22.6	-20.9	-18.7	-14.2	-9.4	-6.8	-3.1	-1.1	1.2	3.1	4.6	6.9	9.1	9.9	13.7	13.3	10.5	7.5	3.3	-3.9	-12.8	-19.8	-21.5	-4.0	36.7
OCT	-25.3	-23.3	-18.2	-16.2	-14.4	-10.4	-6.4	-2.0	0.8	2.9	4.4	6.0	8.9	10.7	12.0	11.4	12.4	12.0	7.0	1.6	-6.6	-12.5	-18.8	-22.4	-3.6	37.7
NOV	-13.2	-11.9	-8.8	-7.2	-5.9	-5.4	-3.3	-1.2	0.1	2.1	3.2	3.8	4.6	6.7	8.6	10.9	10.3	9.2	7.2	5.5	0.5	-5.7	-9.2	-11.4	-0.4	24.1
DEC	-11.7	-11.7	-10.2	-8.9	-7.7	-5.9	-3.5	-1.9	-0.7	0.6	1.6	2.2	3.3	5.2	7.6	8.5	8.5	8.7	8.1	7.0	2.2	-3.5	-7.4	-10.2	-0.8	20.4
MEAN	-18.2	-17.6	-15.2	-13.0	-10.6	-7.6	-4.9	-2.2	-0.3	1.5	2.8	3.7	5.3	7.1	8.9	10.2	10.3	9.2	7.3	4.2	-0.8	-6.5	-12.1	-16.2	-2.2	29.0

Dombås. Declination. Quiet Values (+ W). Unit Gamma. *Gr. M. T.*

1923-1933		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MIN.	MAX.	AMP.
JAN	-2.9	-2.6	-2.1	-1.8	-2.2	-2.7	-3.4	-3.9	-3.3	-0.9	3.4	7.3	9.4	7.9	5.0	3.2	2.3	1.3	0.2	-0.9	-2.1	-2.9	-3.2	-3.3	-4.8	9.4	14.2
FEB	-3.4	-3.3	-3.5	-4.1	-4.7	-5.5	-6.6	-6.9	-6.1	-2.3	3.5	9.8	13.3	12.9	9.6	5.7	3.6	1.9	0.6	-0.9	-2.4	-3.4	-3.6	-3.6	-7.4	13.4	20.8
MAR	-3.9	-4.6	-5.6	-6.7	-7.8	-9.6	-12.0	-13.0	-10.9	-4.2	5.9	15.7	21.5	20.2	14.5	7.6	3.5	1.1	0.2	-0.7	-1.5	-2.5	-3.0	-3.3	-13.0	21.5	34.5
APR	-4.5	-6.3	-7.9	-9.8	-12.6	-15.8	-18.7	-19.0	-13.3	-2.4	9.8	21.4	27.6	25.0	17.8	9.6	4.3	1.3	0.1	-0.2	-0.4	-1.3	-2.4	-3.4	-19.8	27.7	47.5
MAY	-3.8	-6.2	-9.1	-13.0	-17.0	-20.3	-21.2	-18.3	-11.2	-0.1	10.6	22.3	26.5	23.4	15.5	9.5	5.9	3.0	1.5	1.3	0.9	0.3	-0.7	-2.4	-21.4	26.6	48.0
JUN	-4.0	-7.3	-11.3	-15.5	-21.0	-24.4	-24.5	-20.6	-12.6	-1.3	10.8	21.6	27.5	25.4	19.8	12.2	8.1	4.9	4.0	3.7	3.4	2.5	0.6	-1.6	-25.0	27.3	52.3
JUL	-3.7	-6.9	-11.2	-16.0	-20.6	-24.4	-25.3	-21.4	-13.7	-2.9	9.1	20.8	27.4	27.1	21.5	14.5	8.3	4.8	3.6	3.8	3.6	2.6	1.0	-1.4	-25.4	28.0	53.4
AUG	-4.7	-7.7	-11.1	-15.5	-19.5	-22.4	-22.2	-18.1	-10.0	0.8	12.3	22.7	28.3	26.3	19.3	10.8	4.9	2.4	1.9	2.6	2.4	1.4	-0.4	-2.8	-22.7	28.4	51.1
SEP	-5.7	-7.6	-9.8	-12.1	-14.5	-17.0	-17.6	-14.6	-6.9	3.0	13.5	22.2	25.5	21.7	14.7	7.5	2.8	1.3	1.1	1.3	0.5	-0.9	-2.6	-4.2	-18.0	25.5	43.5
OCT	-5.0	-5.5	-6.3	-6.9	-7.6	-8.6	-10.1	-10.3	-7.5	-1.3	7.2	15.0	19.0	17.3	12.5	6.5	3.4	1.9	0.5	-0.6	-1.8	-2.6	-3.8	-4.6	-10.4	19.0	29.4
NOV	-3.7	-3.2	-3.1	-3.2	-3.5	-4.5	-5.4	-5.4	-3.9	0.3	5.6	10.5	11.8	10.1	7.5	4.2	2.6	1.3	0.0	-1.6	-3.0	-3.8	-4.1	-4.0	-6.0	11.9	17.9
DEC	-3.2	-2.6	-2.1	-2.1	-2.5	-2.9	-3.4	-3.4	-2.3	0.4	4.1	8.0	9.4	7.9	5.7	3.1	1.9	0.7	-0.6	-1.9	-2.7	-3.4	-3.7	-3.6	-4.4	9.4	13.8
MEAN	-4.0	-5.3	-6.9	-8.9	-11.1	-13.2	-14.2	-12.9	-8.5	-0.9	8.0	15.6	20.7	18.8	13.6	7.9	4.3	2.2	1.1	0.6	-0.3	-1.2	-2.2	-3.2	-14.9	20.7	35.6

Dombås. Horizontal Intensity. Quiet Values (+ N). Unit Gamma. *Gr. M. T.*

1923-1933		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MIN.	MAX.	AMP.
JAN	-0.1	-0.6	-0.2	1.2	2.5	3.6	3.5	1.4	-1.7	-5.4	-7.2	-6.6	-4.6	-2.1	-0.4	0.9	2.3	2.7	3.1	2.8	2.2	1.4	0.8	0.3	-7.3	4.6	11.9
FEB	1.7	1.6	2.1	3.4	4.6	5.8	5.1	2.5	-2.2	-7.8	-11.5	-12.5	-10.0	-6.1	-2.7	0.1	1.8	3.5	4.6	4.7	4.2	[illegible]	2.7	1.9	-12.7	6.1	18.8
MAR	4.5	4.4	4.6	5.6	6.5	6.7	4.4	-0.6	-7.9	-15.7	-19.6	-18.8	-14.2	-8.5	-3.3	1.3	4.5	6.5	7.6	7.6	7.1	6.4	5.5	5.1	-19.8	8.6	28.5
APR	7.6	7.0	7.0	7.7	7.9	6.5	2.0	-6.6	-16.4	-25.5	-29.6	-26.3	-18.9	-10.2	-2.8	3.8	8.5	11.6	13.0	13.1	12.1	10.8	9.6	7.4	-29.6	13.5	43.1
MAY	7.3	6.7	7.0	6.6	5.4	2.2	-3.5	-12.1	-20.9	-27.9	-29.1	-25.2	-18.2	-10.0	-2.5	5.1	11.3	15.2	18.6	17.5	15.1	12.2	9.9	8.0	-29.5	18.8	48.3
JUN	6.1	6.2	7.2	6.8	4.9	0.2	-6.0	-14.6	-23.1	-29.9	-30.1	-24.6	-17.0	-8.3	-0.3	7.5	13.9	18.7	20.6	19.3	16.3	12.0	8.7	6.8	-30.5	20.6	51.1
JUL	5.2	5.5	6.5	6.7	4.9	0.7	-5.2	-13.3	-21.4	-28.3	-29.3	-24.7	-16.8	-8.3	-0.5	7.3	12.2	17.7	19.4	18.5	15.7	11.5	8.2	5.7	-29.5	19.8	49.3
AUG	4.8	5.0	5.9	6.8	6.1	2.9	-1.8	-9.2	-17.4	-25.0	-27.4	-23.5	-16.5	-8.3	-0.8	5.6	11.0	15.0	16.5	15.6	12.8	9.7	6.9	5.5	-27.4	16.9	44.3
SEP	6.4	6.1	6.6	6.9	6.3	3.6	-0.4	-7.6	-15.5	-21.8	-23.6	-19.8	-13.5	-6.8	-1.9	2.8	6.2	9.1	10.9	11.5	10.5	9.1	7.6	6.7	-23.7	11.9	35.3
OCT	5.0	5.0	5.6	6.5	7.1	6.7	4.3	-1.5	-9.1	-16.3	-19.5	-17.9	-13.7	-8.3	-3.6	0.6	3.7	6.1	7.4	7.6	7.4	6.9	6.1	5.3	-19.6	8.7	28.3
NOV	1.0	0.6	1.3	3.0	4.5	5.0	4.1	0.4	-4.4	-8.9	-10.6	-9.6	-6.7	-4.1	-1.4	1.0	2.8	4.2	4.8	4.5	3.6	2.8	1.9	1.4	-10.7	6.0	16.7
DEC	-1.2	-1.0	0.0	1.5	2.7	3.8	3.3	1.3	-1.7	-4.5	-6.0	-5.6	-3.5	-1.4	0.1	1.5	2.5	2.9	3.1	2.4	1.5	0.4	-0.4	-1.1	-6.0	4.5	10.5
MEAN	4.0	3.9	4.5	5.2	5.3	4.0	0.8	-5.0	-11.8	-18.1	-20.3	-17.9	-12.8	-6.9	-1.7	3.1	6.7	9.4	10.8	10.4	9.0	7.2	5.6	4.4	-20.5	11.6	32.2

Dombås. Vertical Intensity. Quiet Values (+ Down). Unit Gamma. *Gr. M. T.*

1923-1933		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	MIN.	MAX.	AMP.
JAN	-0.1	-0.4	-0.4	-0.4	-0.8	-1.2	-1.5	-2.1	-2.4	-2.6	-2.2	-1.5	-0.2	0.5	1.4	1.9	2.2	2.3	2.3	2.1	1.7	0.8	0.4	-0.1	-2.9	2.8	5.7
FEB	-0.2	-0.3	-0.2	-0.5	-0.6	-1.0	-1.5	-2.2	-2.9	-3.5	-3.1	-2.5	-1.2	0.2	1.5	2.7	3.5	3.6	3.1	2.5	1.7	0.9	0.1	-0.1	-3.8	3.9	7.7
MAR	-0.7	-0.6	-0.6	-0.7	-0.8	-1.1	-1.5	-2.2	-3.5	-4.5	-5.1	-4.0	-2.4	0.2	2.6	4.7	5.6	5.5	4.6	3.5	2.0	1.0	0.2	-0.7	-5.1	5.8	10.9
APR	-0.5	-0.4	-0.1	-0.1	-0.1	-0.5	-0.9	-1.8	-3.4	-5.2	-6.8	-6.5	-4.5	-1.5	1.5	4.3	5.9	6.5	5.7	4.5	3.0	1.5	0.2	-0.5	-6.9	6.6	13.5
MAY	0.5	0.7	1.1	1.4	1.3	0.5	-0.5	-2.3	-4.5	-6.8	-8.3	-7.8	-5.8	-2.9	0.3	3.1	5.2	6.2	6.0	5.1	3.6	2.3	1.3	0.5	-8.4	6.5	14.9
JUN	0.4	0.7	1.1	1.4	1.2	0.5	-0.5	-2.3	-4.2	-6.6	-8.5	-7.9	-6.0	-3.2	-0.3	2.7	5.1	6.4	6.5	5.5	4.0	2.5	1.3	0.3	-8.5	6.6	15.1
JUL	0.5	0.8	1.0	1.0	0.6	-0.1	-1.4	-3.1	-5.2	-7.4	-8.5	-8.0	-6.4	-3.4	-0.2	2.8	5.4	7.1	7.5	6.2	4.5	3.1	1.6	0.4	-7.7	7.5	15.2
AUG	-0.5	0.1	0.7	1.0	1.1	0.5	-0.8	-2.6	-4.6	-6.5	-7.3	-6.5	-4.6	-1.5	1.4	4.0	5.9	6.5	6.1	4.5	3.0	1.7	0.4	-0.5	-7.7	6.7	14.4
SEP	-0.6	-0.1	0.3	0.8	1.1	0.6	-0.5	-1.9	-3.6	-5.3	-6.0	-5.5	-3.9	-1.5	1.2	3.3	4.7	5.2	4.8	3.6	2.2	0.9	0.0	-0.6	-6.3	5.6	11.9
OCT	-0.6	-0.4	-0.2	0.3	0.1	-0.3	-1.0	-2.1	-3.2	-3.9	-4.3	-3.5	-2.3	-0.5	1.3	3.1	4.3	4.6	4.3	3.1	1.9	0.9	0.1	-0.5	-4.6	5.0	9.6
NOV	-0.8	-0.7	-0.5	-0.1	0.2	-0.4	-1.0	-1.7	-2.3	-2.6	-2.6	-1.9	-0.8	0.5	1.6	2.5	3.1	3.3	2.9	2.2	1.1	0.5	-0.4	-0.7	-3.4	3.5	6.9
DEC	-0.5	-0.5	-0.4	-0.4	-0.4	-0.7	-1.1	-1.5	-2.2	-2.5	-2.2	-1.5	-0.7	0.3	1.2	1.7	2.2	2.5	2.3	1.7	1.5	0.7	0.0	-0.5	-2.7	2.5	5.2
MEAN	-0.3	-0.1	0.2	0.3	0.2	-0.3	-1.0	-2.2	-3.5	-4.8	-5.4	-4.8	-3.2	-1.1	1.2	3.1	4.4	5.0	4.7	3.7	2.5	1.4	0.4	-0.2	-5.8	5.2	11.0

Declination.

WS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	1.3	1.3	1.7	3.8	2.3	1.7	1.8	2.8	2.1	2.7	3.1	2.2
FEB	2.0	1.6	1.8	3.9	2.2	2.2	4.5	4.5	3.1	1.9	3.1	2.8
MAR	2.3	2.0	2.3	4.5	2.4	5.1	3.4	3.6	2.2	3.0	2.8	3.1
APR	1.5	1.4	3.0	3.0	4.0	3.0	4.1	4.0	1.5	3.0	3.2	2.9
MAY	1.8	2.6	4.0	3.5	4.2	5.2	3.7	3.7	2.5	5.0	4.6	3.7
JUN	4.0	4.1	4.8	3.5	5.2	5.0	3.4	5.6	3.1	3.5	3.4	4.1
JUL	2.3	3.7	3.0	4.0	4.0	6.5	3.0	3.9	4.1	3.8	3.3	3.9
AUG	1.1	2.1	4.8	3.4	4.3	4.0	2.7	4.2	3.5	3.1	3.5	3.3
SEP	1.6	2.9	3.0	5.1	4.1	3.8	3.0	4.8	3.9	3.0	3.0	3.5
OCT	1.5	2.0	4.2	6.3	4.1	2.5	4.2	5.1	4.0	2.9	2.9	3.6
NOV	1.2	2.0	2.5	2.8	1.7	2.5	3.8	3.5	3.4	2.7	2.8	2.6
DEC	1.5	1.6	2.7	1.9	3.3	1.5	3.6	3.1	2.7	2.0	2.0	2.4
MEAN	1.9	2.3	3.2	3.8	3.5	3.6	3.4	4.2	3.0	3.0	3.1	3.2

Declination.

ES	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	2.3	3.9	3.1	6.5	4.2	4.5	4.8	7.3	4.8	5.7	4.3	4.7
FEB	4.0	2.9	2.5	8.0	4.9	4.8	6.2	7.2	4.7	7.8	6.0	5.4
MAR	3.4	3.6	3.1	6.3	8.4	2.8	3.4	6.9	4.9	10.0	5.9	5.3
APR	3.3	2.4	3.2	6.6	4.7	4.8	3.3	9.0	4.2	7.0	5.7	5.1
MAY	3.1	2.4	2.0	4.4	3.3	5.5	3.6	7.0	3.7	4.1	3.8	3.9
JUN	2.0	2.7	4.1	4.2	2.2	3.2	6.6	4.8	3.9	1.9	3.8	3.6
JUL	2.0	2.5	3.0	3.0	3.5	6.3	8.5	5.2	2.7	2.4	3.1	3.8
AUG	2.3	2.0	3.2	3.6	3.8	4.3	4.8	6.5	4.7	4.1	4.7	4.0
SEP	4.2	3.5	5.6	5.6	4.8	6.0	7.8	5.8	8.4	5.5	5.2	5.4
OCT	5.0	2.9	6.0	7.0	7.5	8.0	8.5	7.5	8.0	5.5	4.1	6.4
NOV	2.3	2.5	4.7	3.2	3.6	5.2	5.7	5.8	6.2	3.8	4.9	4.4
DEC	2.2	2.0	3.7	3.5	5.0	5.5	6.8	4.9	6.2	5.6	4.5	4.5
MEAN	3.0	2.8	3.7	5.3	4.6	5.1	5.8	6.5	4.9	5.3	4.7	4.7

Declination.

WS-ES	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	-1.0	-2.6	-1.4	-2.7	-1.9	-2.8	-3.0	-4.5	-2.7	-3.0	-1.2	-2.5
FEB	-2.0	-1.3	-0.7	-4.1	-2.7	-2.6	-1.7	-2.7	-1.6	-5.9	-2.9	-2.6
MAR	-1.1	-1.6	-0.8	-1.8	-6.0	2.3	0.0	-3.3	-2.7	-7.0	-3.1	-2.2
APR	-1.7	-1.0	-0.2	-5.6	-0.1	-1.8	0.7	-5.0	-2.7	-4.0	-2.5	-2.2
MAY	-1.3	0.2	2.0	-0.9	-0.9	-0.3	0.1	-3.3	-1.2	0.9	0.8	-0.2
JUN	2.0	1.4	0.7	-0.7	3.0	1.8	-3.7	0.8	-0.8	1.6	-0.4	0.5
JUL	0.3	1.2	0.0	1.0	0.5	0.2	-5.5	-1.3	1.4	1.4	0.2	0.0
AUG	-1.2	0.1	1.6	-0.2	0.5	-0.3	-2.1	-2.3	-1.2	-1.0	-1.2	-0.7
SEP	-2.6	-0.6	-2.6	-0.5	-0.7	-2.2	-4.8	-1.0	-1.5	-2.5	-2.2	-1.9
OCT	-3.5	-0.9	-1.8	-0.7	-3.4	-5.5	-4.3	-2.4	-4.0	-2.6	-1.2	-2.8
NOV	-1.1	-0.5	-2.2	-0.4	-1.9	-2.7	-1.9	-2.3	-2.8	-1.1	-2.1	-1.8
DEC	-0.7	-0.4	-1.0	-1.6	-1.7	-4.0	-3.2	-1.8	-3.5	-3.6	-2.5	-2.1
MEAN	-1.1	-0.5	-0.5	-1.5	-1.1	-1.5	-2.4	-2.3	-1.9	-2.3	-1.6	-1.5

Horizontal Intensity.

PS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	1.3	2.0	1.9	3.1	2.1	1.2	2.1	3.3	1.7	1.9	1.7	2.0
FEB	2.1	2.2	1.8	7.8	2.5	1.8	6.0	3.5	4.2	1.7	2.5	3.3
MAR	2.7	1.9	2.9	8.2	7.8	3.8	8.6	6.6	2.7	4.4	4.0	4.9
APR	1.6	2.2	2.8	7.5	10.9	3.8	4.5	7.0	2.2	5.3	4.6	4.8
MAY	3.2	3.7	4.3	8.9	7.5	13.3	5.1	9.3	4.0	4.9	5.5	6.3
JUN	5.3	5.2	4.8	6.9	5.0	7.8	6.6	9.3	4.6	4.3	3.9	5.8
JUL	3.4	3.5	3.8	6.8	7.6	7.8	9.6	7.1	4.5	3.2	3.2	5.5
AUG	1.7	2.2	5.4	5.5	8.6	6.0	6.8	7.0	3.6	4.2	5.2	5.2
SEP	2.7	2.2	3.8	9.7	8.1	10.4	4.5	8.6	3.1	4.5	5.0	5.9
OCT	3.0	1.2	5.2	7.0	8.8	7.2	5.1	7.0	4.9	4.2	2.7	5.1
NOV	2.3	2.5	2.2	2.5	2.4	3.8	5.1	3.1	2.2	1.5	1.7	2.6
DEC	1.9	1.4	2.9	3.1	3.0	2.0	5.2	4.6	1.8	3.0	1.8	2.8
MEAN	2.6	2.5	3.6	6.4	6.2	5.7	5.8	6.4	3.3	3.6	3.5	4.5

Horizontal Intensity.

NS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	2.0	2.7	4.0	14.3	6.8	3.3	5.0	6.4	4.2	4.7	4.5	5.2
FEB	4.3	2.7	2.7	12.1	8.8	5.1	19.2	11.3	4.0	6.2	5.3	7.4
MAR	5.1	3.0	1.6	13.5	10.2	5.9	17.1	11.3	4.7	10.5	5.7	8.0
APR	3.7	2.0	3.3	13.0	5.8	5.7	4.8	21.8	4.0	10.9	3.8	7.2
MAY	3.5	2.5	4.8	9.5	9.2	16.1	4.7	23.4	4.1	15.4	10.4	9.4
JUN	3.1	7.4	9.3	8.4	4.3	7.1	4.9	18.0	5.2	3.6	4.8	6.9
JUL	3.0	2.0	4.2	5.2	4.0	14.5	8.8	10.7	5.6	3.9	4.0	6.0
AUG	4.4	2.7	4.9	3.9	10.1	10.7	8.2	13.0	6.1	6.3	3.6	6.7
SEP	6.2	4.6	9.8	17.4	6.3	8.7	7.9	13.6	9.0	5.7	7.4	8.8
OCT	8.4	3.8	12.5	16.6	13.3	8.8	10.8	12.7	14.0	5.1	4.2	10.0
NOV	2.0	2.6	6.9	3.9	4.7	7.3	8.0	7.2	6.7	3.4	4.5	5.2
DEC	2.4	2.0	3.3	3.0	7.0	4.0	7.7	6.0	5.5	5.1	3.7	4.5
MEAN	4.0	3.2	5.6	10.1	7.5	8.1	8.9	13.0	6.1	6.7	5.2	7.1

Horizontal Intensity.

PS-NS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	-0.7	-0.7	-2.1	-11.2	-4.7	-2.1	-2.9	-3.1	-2.5	-2.8	-2.8	-3.2
FEB	-2.2	-0.5	-0.9	-4.3	-6.3	-3.3	-13.2	-7.8	0.2	-4.5	-2.8	-4.1
MAR	-2.4	-1.1	1.3	-5.3	-2.4	-2.1	-8.5	-4.7	-2.0	-6.1	-1.7	-3.1
APR	-2.1	0.2	-0.5	-5.5	5.1	-1.9	-0.3	-14.8	-1.8	-5.6	0.8	-2.4
MAY	-0.3	1.2	-0.5	-0.6	-1.7	-2.8	0.4	-14.1	-0.1	-10.5	-4.9	-3.1
JUN	2.2	-2.2	-4.5	-1.5	0.7	0.6	1.7	-8.7	-0.6	0.7	-0.9	-1.1
JUL	0.4	1.5	-0.4	1.6	3.6	-8.7	0.8	-3.6	-1.1	-0.7	-0.8	-0.5
AUG	-2.7	-0.5	0.5	1.6	-1.5	-4.7	-1.4	-6.0	-2.2	-1.5	1.6	-1.5
SEP	-3.5	-2.4	-4.0	-7.7	1.8	1.7	-3.4	-5.0	-5.9	-1.2	-2.4	-2.9
OCT	-5.4	-2.6	-7.3	-9.6	-4.5	-1.6	-5.7	-5.7	-9.1	-0.9	-1.5	-4.9
NOV	0.3	-0.1	-4.7	-1.4	-2.3	-3.5	-2.9	-4.1	-4.5	-1.9	-2.8	-2.6
DEC	-0.5	-0.6	-0.4	0.1	-4.0	-2.0	-2.5	-1.4	-3.7	-2.1	-1.9	-1.7
MEAN	-1.4	-0.7	-2.0	-3.7	-1.3	-2.4	-3.1	-6.6	-2.8	-3.1	-1.7	-2.6

Vertical Intensity.

NS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	1.4	3.9	1.4	4.5	3.6	4.1	2.8	7.8	2.8	3.7	4.3	3.7
FEB	2.5	2.1	2.8	7.3	5.1	6.8	10.2	8.4	6.4	4.5	6.1	5.7
MAR	2.0	3.7	2.5	6.4	10.0	5.4	8.3	7.7	2.3	5.9	7.0	5.6
APR	2.0	1.9	2.2	7.8	5.6	5.5	2.5	6.1	3.2	4.1	5.2	4.2
MAY	2.7	2.6	3.2	8.9	4.8	8.2	2.7	6.1	3.2	4.2	3.8	4.6
JUN	3.8	4.1	4.6	4.6	2.6	4.0	4.0	7.3	3.8	1.4	2.8	3.9
JUL	2.8	2.0	3.2	4.6	3.3	4.8	6.8	3.6	4.5	2.2	2.2	3.6
AUG	2.6	1.2	4.3	4.7	5.0	4.4	3.8	8.2	5.1	4.5	4.1	4.2
SEP	3.3	1.6	5.6	8.0	4.8	5.0	6.2	6.3	4.9	4.6	5.3	5.1
OCT	3.4	2.5	6.6	7.9	4.9	4.4	7.7	7.7	6.6	4.8	3.0	5.4
NOV	2.0	3.4	5.6	5.9	2.3	5.2	9.0	5.4	4.2	3.7	3.0	4.5
DEC	2.5	2.0	4.0	3.7	4.0	2.2	7.8	4.2	4.8	5.2	2.3	3.9
MEAN	2.6	2.6	3.8	6.2	4.7	5.0	6.0	6.4	4.3	4.1	4.1	4.5

Vertical Intensity.

PS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	2.3	5.5	2.5	4.5	6.1	3.2	3.0	3.0	3.1	6.0	4.6	4.0
FEB	3.4	3.3	5.2	9.5	6.7	6.0	9.0	5.4	4.7	8.1	7.8	6.3
MAR	2.4	4.6	2.8	18.2	9.9	5.2	13.4	11.2	5.7	14.0	7.4	8.6
APR	3.3	1.6	4.5	11.2	7.1	8.3	7.8	17.7	3.6	14.3	11.8	8.3
MAY	3.5	4.7	7.0	11.4	8.2	11.5	6.5	14.1	3.5	9.8	6.0	7.8
JUN	3.2	5.8	10.1	7.1	4.8	9.2	6.3	11.5	6.5	4.5	5.5	6.8
JUL	6.1	3.5	5.7	5.0	3.8	10.8	6.2	6.4	4.8	3.0	3.2	5.3
AUG	6.3	3.5	5.2	6.9	8.1	9.4	5.6	14.8	7.1	5.1	5.8	7.1
SEP	6.8	5.3	8.0	12.2	8.1	9.0	10.1	8.5	11.5	10.4	8.9	9.0
OCT	5.4	4.6	11.5	6.0	12.2	9.4	9.6	8.7	14.8	7.6	7.6	8.9
NOV	2.4	2.2	6.9	5.1	2.4	7.1	6.2	5.2	8.0	4.4	5.2	5.0
DEC	1.4	2.0	2.2	4.2	6.4	9.0	7.0	5.0	5.2	5.1	3.5	4.6
MEAN	3.9	3.9	6.0	8.4	7.0	8.2	7.6	9.3	6.5	7.7	6.4	6.8

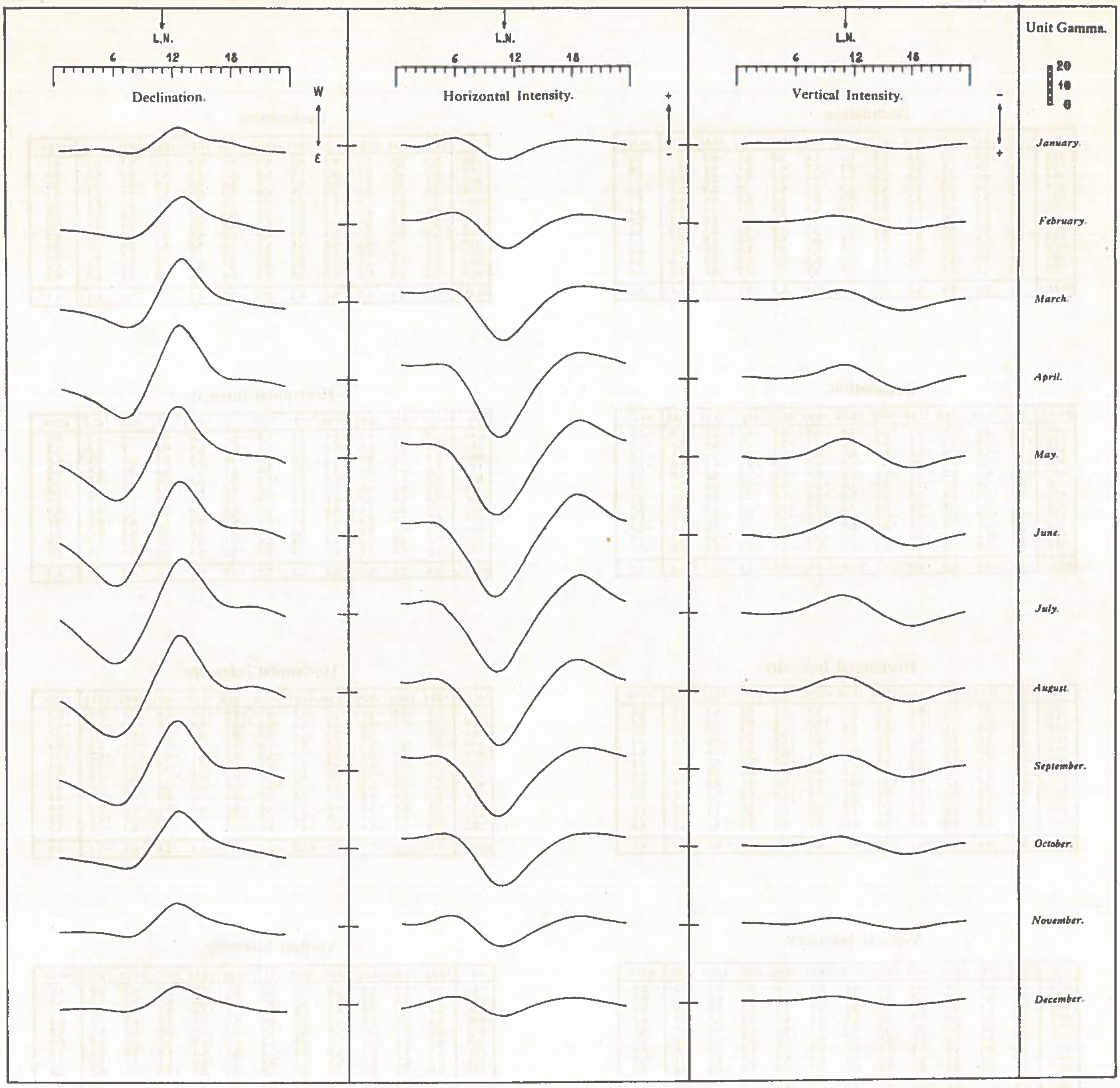
Vertical Intensity.

PS-NS	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	MEAN
JAN	-0.9	-1.6	-1.1	0.0	-2.5	0.9	-0.2	4.8	-0.3	-2.3	-0.3	-0.3
FEB	-0.9	-1.2	-2.4	-2.2	-1.6	0.8	1.2	3.0	1.7	-3.6	-1.7	-0.6
MAR	-0.4	-0.9	-0.3	-11.8	0.1	0.2	-5.1	-3.5	-3.4	-8.1	-0.4	-3.0
APR	-1.3	0.3	-2.3	-3.4	-1.5	-2.8	-5.3	-11.6	-0.4	-10.2	-6.6	-4.1
MAY	-0.8	-2.1	-3.8	-2.5	-3.4	-3.3	-3.8	-8.0	-0.3	-5.6	-2.2	-3.2
JUN	0.6	-1.7	-5.5	-2.5	-2.2	-5.2	-2.3	-4.2	-2.7	-3.1	-2.7	-2.9
JUL	-3.3	-1.5	-2.5	-0.4	-0.5	-6.0	0.6	-2.8	-0.3	-0.8	-1.0	-1.7
AUG	-3.7	-2.3	-0.9	-2.2	-3.1	-5.0	-2.0	-8.6	-2.0	-0.6	-1.7	-2.9
SEP	-3.5	-3.7	-2.4	-4.2	-3.3	-4.0	-3.9	-2.2	-6.6	-5.8	-3.6	-3.9
OCT	-2.0	-2.1	-4.9	1.9	-7.3	-5.0	-1.9	-1.0	-8.2	-2.6	-4.6	-3.5
NOV	-0.4	1.2	-1.3	0.9	-0.1	-1.9	2.8	0.2	-3.8	-0.7	-2.2	-0.5
DEC	1.1	0.0	1.8	-0.5	-2.4	-6.8	0.6	-0.8	-0.4	0.1	-1.2	-0.7
MEAN	-1.3	-1.3	-2.2	-2.2	-2.3	-3.2	-1.6	-2.9	-2.2	-3.6	-2.3	-2.3

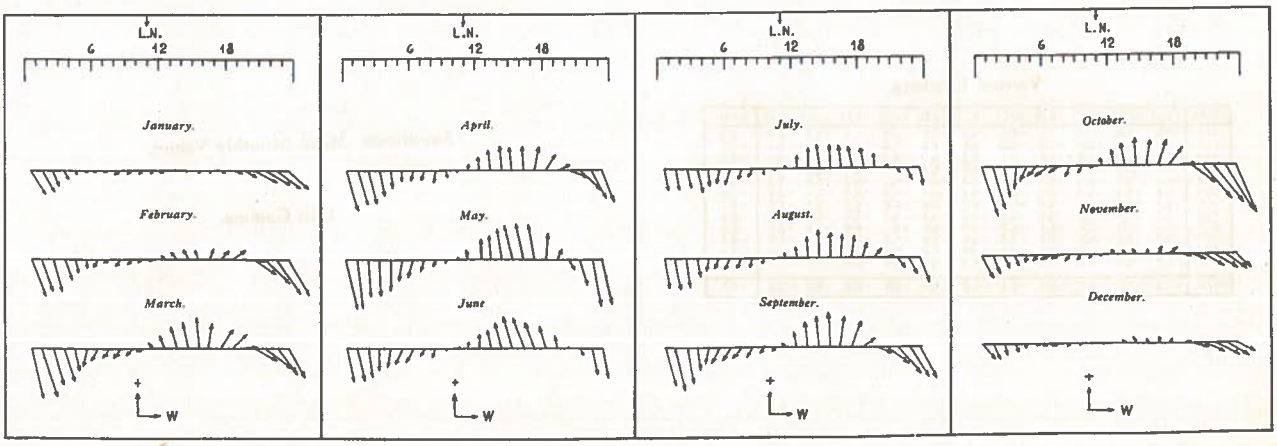
Storminess Mean Monthly Values.

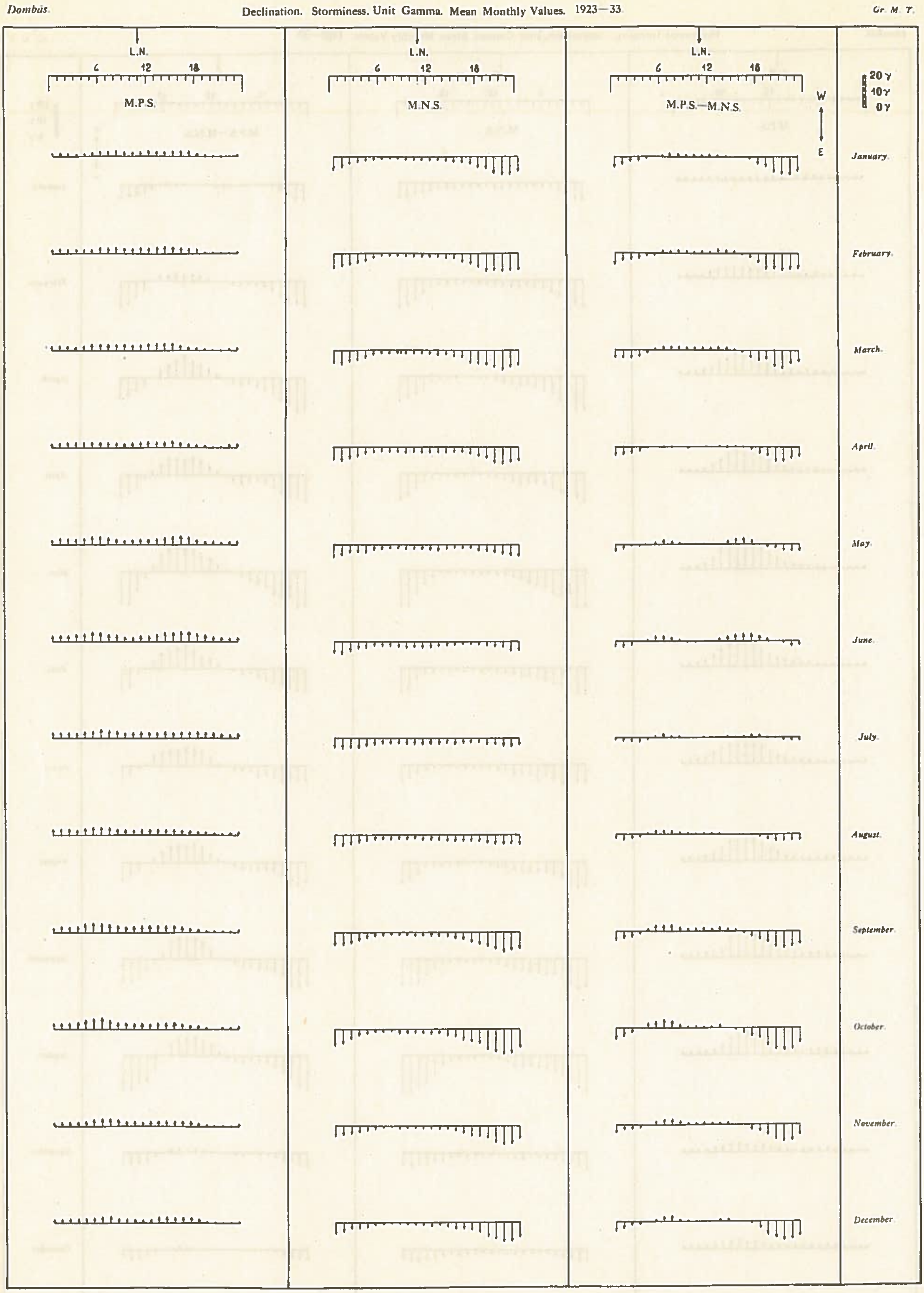
Unit Gamma.

Dombås. Mean Monthly Values. 1923—33. *Gr. M. T.*



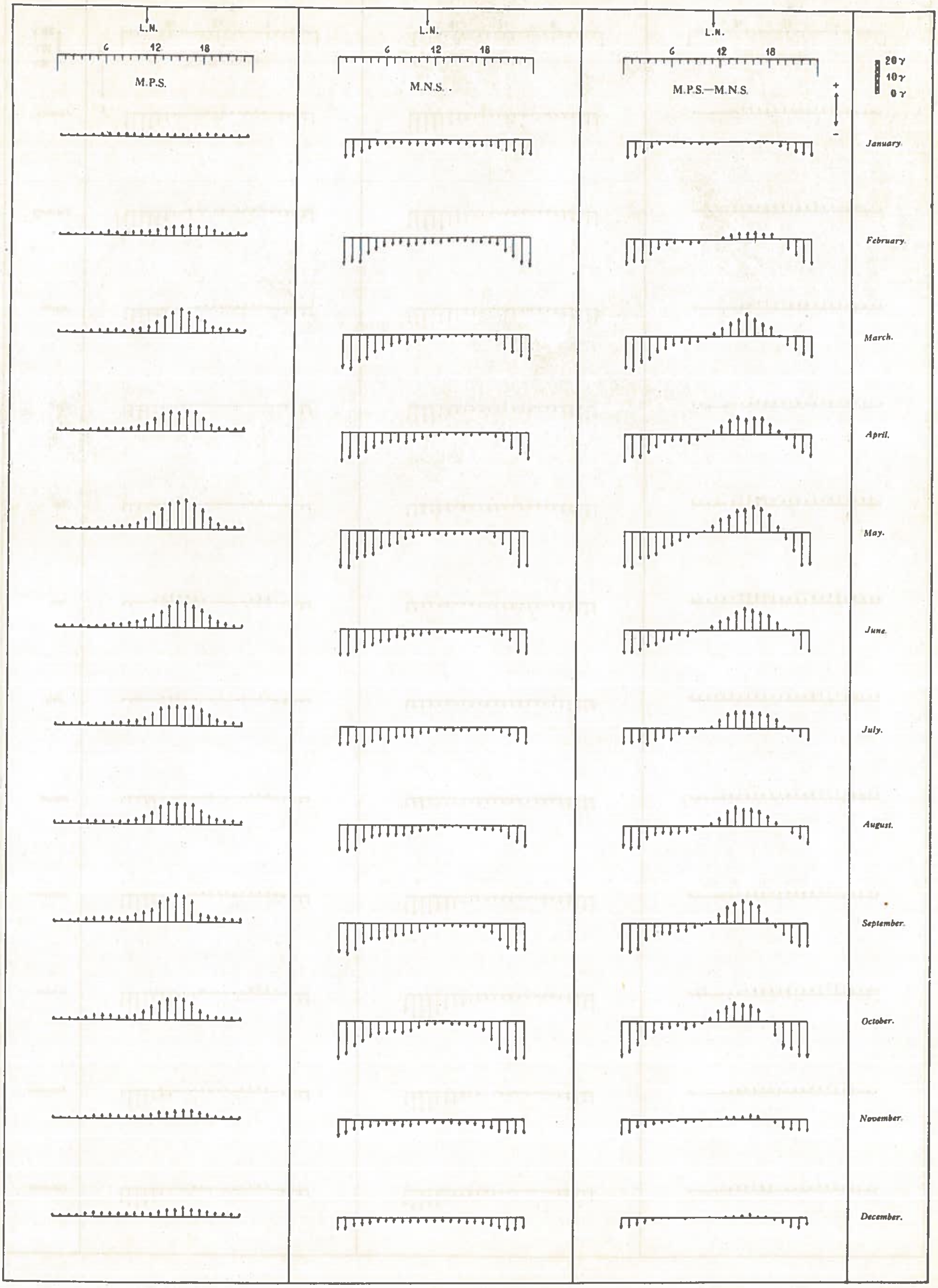
Dombas. Storminess. Unit Gamma. Mean Monthly Values. 1923—33. *Gr. M. T.*

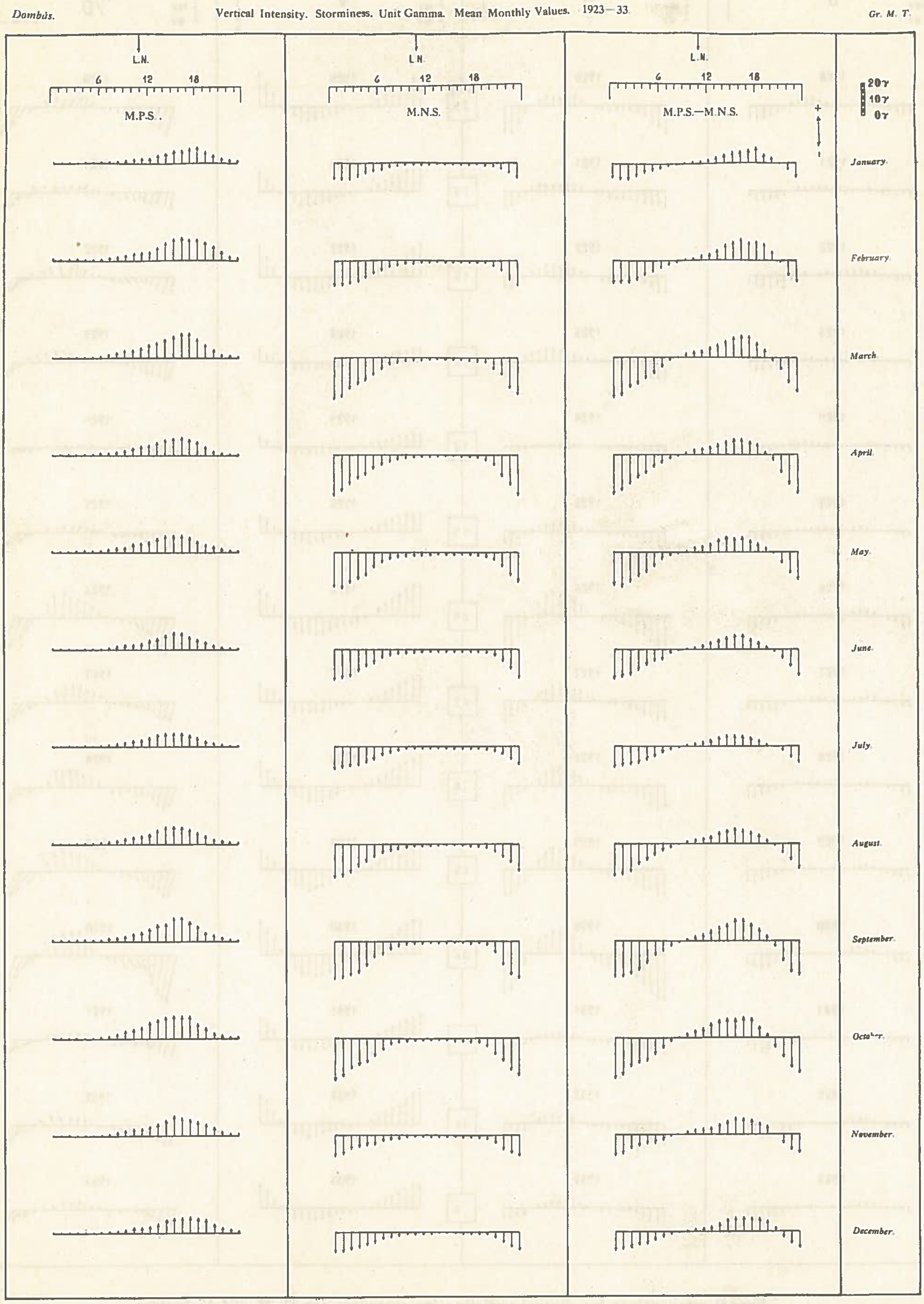


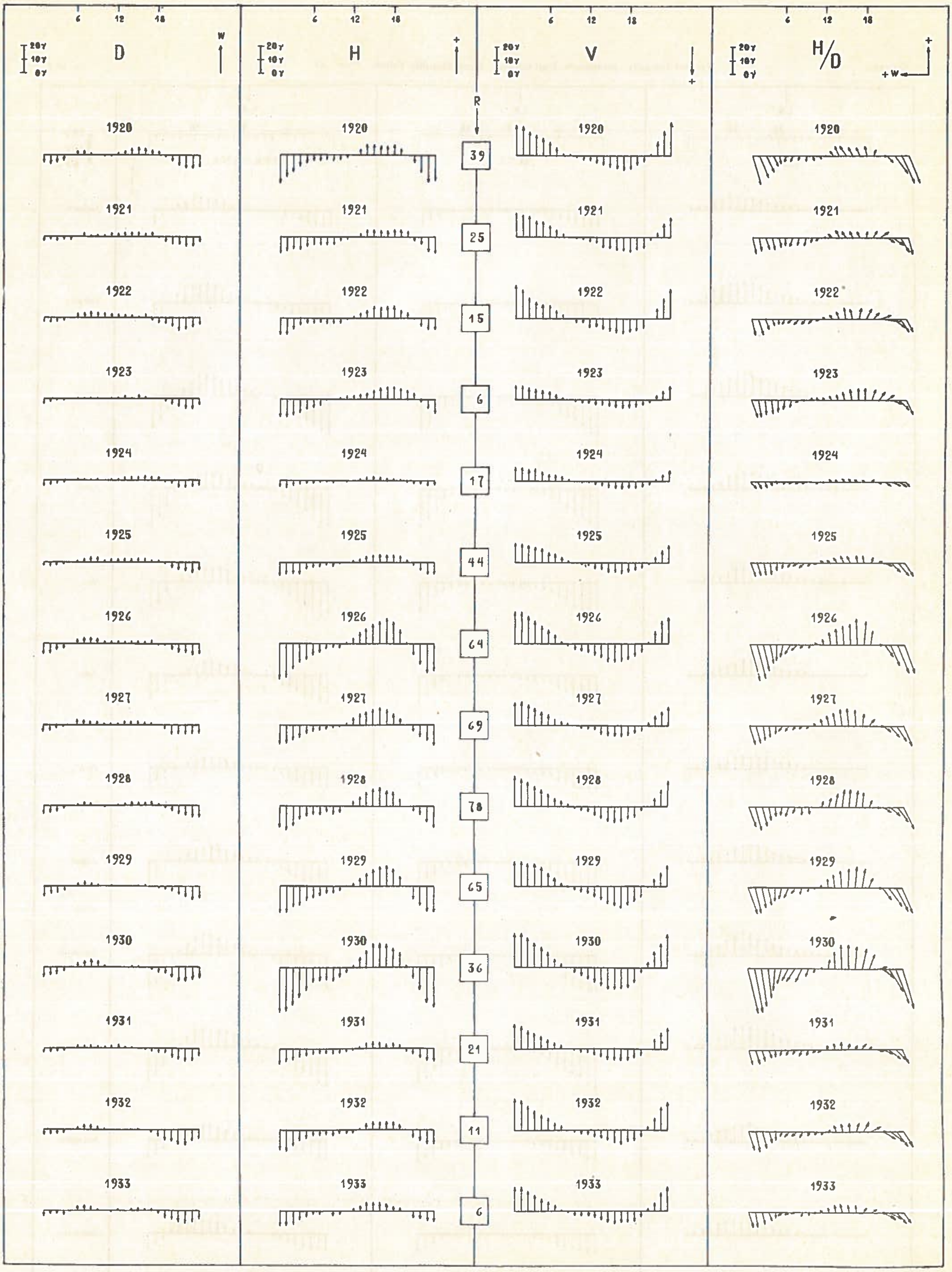


Dombås.
Declination. Storminess. Unit Gamma. Mean Monthly Values. 1923—33.
Gr. M. T.
L.N.
6
12
18
M.P.S.
M.N.S.
M.P.S.—M.N.S.
W
E
20γ
10γ
0γ
January.
February.
March.
April.
May.
June.
July.
August.
September.
October.
November.
December.

Dombås. Horizontal Intensity. Storminess, Unit Gamma. Mean Monthly Values. 1923–33. *Gr. M. T.*




Dombås.
Vertical Intensity. Storminess. Unit Gamma. Mean Monthly Values. 1923—33.
Gr. M. T.
L.N.
6
12
18
M.P.S.
M.N.S.
M.P.S.—M.N.S.
20γ
10γ
0γ
+
January.
February.
March.
April.
May.
June.
July.
August.
September.
November.
December.



Annual mean values for diurnal variation for stormines for D, H and V, besides vector diagrams for D and H.