

Publikasjoner fra
DET NORSKE INSTITUTT FOR KOSMISK FYSIKK
Nr. 4.

THE AURORAL OBSERVATORY AT TROMSÖ
($\varphi = 69^{\circ} 39'.8$ N, $\lambda = 18^{\circ} 56'.9$ E Gr.)
RESULTS OF MAGNETIC OBSERVATIONS
FOR THE YEAR 1932

By

LEIV HARANG and E. TÖNSBERG

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A.S JOHN GRIEGS BOKTRYKKERI, BERGEN

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General Remarks.

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

The observations during the year have been made by E. Tönsberg, Cand. Mag.

Scale-Values.

D-Variometer: $E'_D = 1'45$ per mm — which corresponds to
 $E'_D = 4.86 \gamma$ "

The scale-values of the *H*- and *D*-variometers were determined three times during the year.

| Date | E'_H | E'_V |
|-------|-------------------|-------------------|
| II 19 | 5.08 γ /mm | 6.80 γ /mm |
| V 20 | 5.07 | 6.75 |
| IX 23 | 5.08 | 6.77 |
| Mean: | 5.08 γ /mm | 6.77 γ /mm |

These values have been used during the year.

Base-line Values.

The measurements of the Declination and the Horizontal Intensity result in the table given below of observed and adopted base-line values. During the last part of the year only a few measurements could be made as the magnetic theodolite had also to be used at the two Norwegian Polar-Year stations.

On August 1st and October 6th the mirror for the H -base-line was turned and the line has consequently been displaced.

Unfortunately no Inclination measurements were carried out during 1932. But the measurements from 1931 together with the recent measurements from 1933 aid us in continuing the base-line value from 1931: $V = 50195 \gamma$ for the Vertical Intensity.

The temperatur coefficient for the H -variometer is determined to 8.0γ per degree Celsius. The V -variometer, a Balance de Godhavn, is equipped with-temperature-compensation.

Observed and adopted Base-line Values for D and H .

| Date | D observed | D adopted | Date | H observed | H adopted |
|---------------|-----------------------|-----------------------|---------------|-----------------|-----------------|
| I 13 | $3^{\circ} 56' 6'' W$ | $3^{\circ} 56' 6'' W$ | I 13 | 11 462 γ | 11 462 γ |
| 20 | .8 | .6 | 20 | 62 | 62 |
| II 2 | .5 | .6 | II 2 | 63 | 62 |
| 17 | .6 | .6 | 17 | 62 | 62 |
| 27 | .4 | .6 | 27 | 62 | 62 |
| III 12 | .6 | .6 | III 12 | 61 | 62 |
| IV 2 | .5 | .6 | IV 2 | 63 | 62 |
| 12 | .5 | .6 | 12 | 62 | 62 |
| 30 | .7 | .6 | 30 | 63 | 63 |
| V 14 | .6 | .6 | V 19 | 64 | 64 |
| 19 | .6 | .6 | VI 1 | 64 | 64 |
| VI 1 | .6 | .6 | 15 | 65 | 65 |
| 15 | .5 | .6 | VIII 12 | 55 | 54 |
| VII 26 | .6 | .6 | 19 | 54 | 54 |
| VIII 12 | .4 | .6 | 20 | 54 | 54 |
| XI 8 | .6 | .6 | XI 19 | 113 98 γ | 113 98 |
| 18 | .2 | .2 | XII 21 | 97 | 98 |
| 21 | .2 | .2 | | | |
| 25 | .1 | .2 | | | |
| XII 21 | .1 | .2 | | | |

Explanation to the Tables.

In the preface to No. 2 of the present series of publications, the lines were given along which the results of the earth-magnetic registrations were to be published. In the same paper p. 8—13 the points of view for the separation of the Storminess, defined in the sense of the late Prof. Kr. Birkeland, are discussed and a method for the separation of Storminess was worked out by the late Prof. O. Krogness in collaboration with the board of directors. On account of the great number of disturbed

days at an observatory lying in the vicinity of the auroral zone, the schedule of calculation referred to in Publication No. 2 had to some extent to be modified. For the sake of convenience the method used for separating the Storminess, which is considerably simpler than the rather complicated schedule of calculation referred to in Publication No. 2, will be briefly described.

The hourly mean values are read off on the curves and tabulated on an ordinary Day/Hour schedule, and at the same time the *quiet* hourly values are marked out and entered on an identical schedule. The latter gives a picture of the numbers of quiet and disturbed hours in each month, the disturbed hours always being in great majority. As to the quiet hours, they usually appear in groups of a few days interrupted by disturbed periods. Every group of quiet days, usually two in each month, sometimes three and sometimes only one, forms the basis of a diurnal line of quiet hourly values, we shall call them "normal-line" values. The monthly means of the "normal-line" values are given in the horizontal line marked *QM* in the principal series of tables referred to below. Returning to the schedule with the quiet values already put down, we fill it out with "normal-line" values for all disturbed periods, and we also prefer these values in disturbed intervals of only a few hours. The differences between values from the schedule with the observed hourly values and the corresponding values in the schedule with the quiet, interpolated quiet and "normal-line" values are the tabulated Storminess values.

In *D* the Storminess is reckoned positive towards the magnetic West, in *H* positive towards the magnetic North and in *V* positive downwards.

For each of the earth-magnetic components *D*, *H* and *V* two series of tables are given. One series gives in the usual way the hourly mean values centred at half hours, Gr. M. T. In these tables the column headed *M* gives the ordinary diurnal means. *R* designates the range, *i. e.* the difference between the maximum and minimum value measured on the magnetogram. The horizontal line marked *M* gives the monthly means of the hourly values and the horizontal line marked *QM* the monthly means of the *quiet* hourly values.

The second series of tables gives the hourly values of the Storminess ("average perturbing force" or "activity"). The column headed *M* gives the diurnal mean of the Storminess. The columns headed *PS*, *NS* and *AS* give the diurnal *sum* of the positive, negative and absolute Storminess respectively. The column headed *C* gives the magnetic character numbers. We consider the diurnal sum of the absolute Storminess as the best expression for the magnetic activity during a day, and we will use this quantity for defining the magnetic character numbers. Only the strongest perturbed component, the Horizontal Intensity, is used in characterisation. Character number 0 comprises diurnal sum of absolute Storminess (*AS*) up to 400γ , character number 1 from 400γ to 1200γ and character number 2 greater than 1200γ . The horizontal line marked *M* contains the monthly means of the hourly values and the two lines marked *MPS* and *MNS* give the monthly means of the positive and negative Storminess respectively.

On account of the disturbed character of the curves, especially of *H* during magnetic storms, it is difficult to read off the values with greater accuracy than 5 or even 10γ . In the principal series of tables we therefore during disturbed periods notice the great number of hourly values ending in 5 or 0. In the hourly values of the Storminess the same inaccuracy is introduced although the values may end in arbitrary units, which is merely due to our method of calculation of the Storminess.

In addition to the main tables, resuming tables, figures and vector diagrams are given at the end of the Year-Book.

Errata.

In the Year-book for 1931, some serious misprints were introduced during the typing of the Resuming Tables.

On p. 26 the positive and negative signs of the diurnal variation of the Declination are to be changed.

On p. 27 the headings:

Declination. Unit gamma. + West.

Vertical Intensity. Unit gamma. + Down.

Horizontal Intensity. Unit gamma.

are to be changed into the following headings:

Horizontal Intensity. Unit gamma. + North.

Declination. Unit gamma. + West.

Vertical Intensity. Unit gamma. + Down.

TABLES

Tromsö.

Declination. $D = 3^\circ \text{W}$ + Tabular Quantities expressed in Minutes.
HOURLY MEAN VALUES

Gr. M. T.

APRIL 1932

| DAY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | M | R | | | |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| 1 | 34 | 44 | 37 | 48 | 51 | 49 | 49 | 50 | 49 | 54 | 57 | 56 | 57 | 57 | 60 | 66 | 53 | 52 | 46 | 58 | 57 | 38 | 44 | 41 | 50,3 | 127 | | |
| 2 | 57 | 12 | 57 | 42 | 48 | 50 | 50 | 55 | 59 | 53 | 56 | 59 | 56 | 64 | 60 | 59 | 48 | 56 | 60 | 36 | 52 | 48 | 38 | 43 | 46,0 | 207 | | |
| 3 | 33 | 42 | 24 | 36 | 50 | 48 | 50 | 50 | 53 | 56 | 58 | 57 | 60 | 58 | 55 | 53 | 54 | 59 | 84 | 53 | 45 | 47 | 48 | 31 | 48,3 | 104 | | |
| 4 | 39 | 37 | 32 | 47 | 50 | 47 | 47 | 51 | 51 | 55 | 59 | 60 | 63 | 66 | 60 | 57 | 59 | 54 | 58 | 51 | 39 | 43 | 44 | 24 | 50,1 | 148 | | |
| 5 | 41 | 12 | 32 | 44 | 44 | 40 | 48 | 53 | 56 | 54 | 57 | 61 | 60 | 56 | 55 | 56 | 53 | 55 | 59 | 57 | 53 | 43 | 37 | 38 | 48,5 | 98 | | |
| 6 | 45 | 40 | 48 | 48 | 30 | 40 | 46 | 49 | 51 | 54 | 58 | 60 | 59 | 60 | 59 | 59 | 56 | 56 | 67 | 57 | 55 | 29 | 36 | 29 | 49,6 | 95 | | |
| 7 | 20 | 12 | 6 | 35 | 42 | 47 | 47 | 51 | 64 | 53 | 54 | 60 | 54 | 60 | 45 | 63 | 59 | 62 | 61 | 48 | 54 | 56 | 44 | 15 | 45,4 | 136 | | |
| 8 | -75 | -3 | 38 | 47 | 50 | 53 | 51 | 52 | 52 | 57 | 57 | 61 | 53 | 42 | 56 | 56 | 57 | 52 | 54 | 48 | 46 | 61 | 44,1 | 268 | | | | |
| 9 | 44 | 48 | 32 | 45 | 47 | 46 | 45 | 51 | 51 | 53 | 55 | 57 | 57 | 56 | 59 | 59 | 57 | 57 | 21 | 48 | 61 | 51 | 42 | 49,5 | 77 | | | |
| 10 | 40 | 39 | 48 | 50 | 46 | 51 | 49 | 51 | 52 | 53 | 54 | 58 | 57 | 55 | 55 | 54 | 54 | 53 | 56 | 42 | 44 | 50,4 | 62 | | | | | |
| 11 | 40 | 45 | 50 | 48 | 48 | 49 | 50 | 50 | 51 | 52 | 54 | 56 | 57 | 57 | 56 | 55 | 52 | 54 | 53 | 50 | 43 | 38 | 21 | 49,3 | 68 | | | |
| 12 | 34 | 44 | 47 | 46 | 51 | 49 | 49 | 50 | 51 | 28 | 55 | 59 | 57 | 57 | 55 | 55 | 55 | 57 | 55 | 60 | 12 | 48 | 50 | 49,1 | 37 | | | |
| 13 | 50 | 49 | 50 | 50 | 49 | 49 | 50 | 51 | 53 | 56 | 57 | 59 | 60 | 59 | 59 | 62 | 64 | 64 | 60 | 12 | 42 | 33 | 53,2 | 182 | | | | |
| 14 | 37 | 36 | 29 | 29 | 48 | 49 | 51 | 53 | 50 | 54 | 55 | 56 | 61 | 60 | 64 | 61 | 59 | 66 | 51 | 55 | 56 | 48 | 48 | 51,2 | 62 | | | |
| 15 | 43 | 31 | 39 | 47 | 47 | 51 | 50 | 51 | 52 | 57 | 57 | 59 | 57 | 56 | 55 | 54 | 54 | 59 | 52 | 47 | 46 | 44 | 50,0 | 86 | | | | |
| 16 | 50 | 47 | 49 | 46 | 48 | 50 | 50 | 48 | 51 | 52 | 54 | 54 | 57 | 58 | 59 | 55 | 57 | 56 | 53 | 52 | 51 | 50 | 48 | 52,2 | 50 | | | |
| 17 | 46 | 37 | 48 | 48 | 48 | 51 | 51 | 50 | 50 | 53 | 58 | 58 | 57 | 56 | 57 | 62 | 57 | 54 | 47 | 50 | 48 | 30 | 41 | 50,5 | 65 | | | |
| 18 | 27 | 50 | 30 | 31 | 45 | 49 | 54 | 53 | 66 | 50 | 49 | 51 | 59 | 60 | 58 | 59 | 60 | 60 | 57 | 7 | 26 | 1 | 45,2 | 178 | | | | |
| 19 | 26 | 26 | 45 | 47 | 48 | 50 | 50 | 51 | 52 | 53 | 55 | 56 | 57 | 57 | 58 | 57 | 55 | 55 | 56 | 57 | 53 | 47 | 46 | 47 | 50,1 | 41 | | |
| 20 | 51 | 49 | 49 | 48 | 48 | 49 | 49 | 50 | 51 | 52 | 54 | 55 | 56 | 55 | 55 | 53 | 52 | 52 | 52 | 53 | 52 | 49 | 51 | 50 | 51,5 | 9 | | |
| 21 | 50 | 50 | 49 | 48 | 48 | 48 | 48 | 48 | 49 | 51 | 52 | 54 | 56 | 56 | 54 | 54 | 55 | 52 | 53 | 52 | 51 | 51 | 51 | 50 | 51,3 | 6 | | |
| 22 | 50 | 50 | 50 | 49 | 49 | 48 | 47 | 48 | 48 | 52 | 54 | 59 | 61 | 65 | 65 | 48 | 40 | 72 | 61 | 61 | 56 | 55 | 50 | 52 | 39 | 53,2 | 86 | |
| 23 | 42 | 51 | 42 | 30 | 40 | 47 | 50 | 51 | 50 | 50 | 48 | 51 | 56 | 61 | 55 | 61 | 64 | 72 | 53 | 63 | 56 | 48 | 15 | 17 | 49,3 | 154 | | |
| 24 | -15 | -63 | -15 | 26 | 43 | 48 | 52 | 54 | 53 | 48 | 54 | 57 | 61 | 64 | 59 | 66 | 68 | 76 | 47 | 50 | 51 | 61 | 62 | 44,6 | 237 | | | |
| 25 | 0 | 30 | 24 | 42 | 45 | 49 | 48 | 48 | 48 | 54 | 57 | 60 | 63 | 64 | 53 | 54 | 68 | 51 | 53 | 55 | 57 | 46 | 0 | 14 | 45,0 | 151 | | |
| 26 | 30 | 29 | 7 | 29 | 42 | 41 | 48 | 52 | 48 | 58 | 64 | 64 | 66 | 60 | 62 | 66 | 42 | 60 | 57 | 55 | 46 | 36 | 30 | 47,7 | 192 | | | |
| 27 | 15 | 12 | 33 | 46 | 43 | 43 | 48 | 52 | 54 | 54 | 56 | 54 | 59 | 58 | 59 | 56 | 56 | 54 | 45 | 45 | 27 | 46,2 | 167 | | | | | |
| 28 | 35 | 18 | 32 | 46 | 50 | 52 | 51 | 51 | 51 | 54 | 56 | 58 | 63 | 57 | 60 | 59 | 57 | 59 | 68 | 48 | 36 | 27 | 30 | 48,7 | 89 | | | |
| 29 | 29 | 19 | 41 | 48 | 47 | 48 | 49 | 50 | 53 | 54 | 53 | 54 | 57 | 57 | 56 | 56 | 58 | 53 | 42 | 51 | 51 | 36 | 46 | 48,5 | 47 | | | |
| 30 | 47 | 47 | 40 | 45 | 47 | 50 | 51 | 53 | 52 | 53 | 55 | 58 | 58 | 56 | 56 | 56 | 62 | 59 | 56 | 50 | 48 | 48 | 48,1 | 51,9 | 30 | | | |
| M | 32,2 | 31,3 | 32,6 | 32,6 | 42,7 | 46,4 | 44,6 | 46,0 | 50,8 | 51,8 | 52,1 | 55,1 | 55,0 | 55,8 | 58,2 | 59,3 | 56,4 | 57,3 | 58,3 | 57,1 | 56,0 | 52,1 | 52,5 | 42,8 | 41,3 | 36,8 | 49,0 | 108 |
| QM | 50,4 | 50,1 | 49,6 | 49,6 | 49,0 | 48,7 | 48,7 | 49,9 | 50,4 | 51,6 | 53,5 | 55,2 | 56,1 | 56,4 | 56,7 | 55,2 | 54,1 | 53,5 | 53,2 | 53,2 | 52,6 | 52,3 | 51,6 | 51,0 | 50,4 | 52,3 | | |

MAY

| DAY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | M | R | | |
|-----|----|----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|-----|
| 1 | 48 | 42 | 42 | 45 | 45 | 47 | 47 | 50 | 52 | 51 | 57 | 58 | 58 | 57 | 57 | 58 | 56 | 57 | 54 | 54 | 50 | 52 | 32 | 51,1 | 56 | | |
| 2 | 32 | 15 | 26 | 65 | 39 | 46 | 48 | 49 | 53 | 56 | 60 | 61 | 53 | 60 | 57 | 56 | 58 | 59 | 59 | 59 | 54 | 44 | 45 | 26 | 27 | 48,3 | 107 |
| 3 | 17 | 15 | 17 | 18 | 42 | 45 | 50 | 48 | 50 | 50 | 54 | 54 | 56 | 56 | 59 | 58 | 59 | 60 | 52 | 60 | 60 | 53 | 43 | 45 | 42 | 46,2 | 108 |
| 4 | 30 | 33 | 43 | 43 | 44 | 47 | 45 | 47 | 49 | 52 | 61 | 58 | 56 | 60 | 59 | 58 | 65 | 75 | 76 | 56 | 44 | 42 | 33 | 32 | 50,3 | 173 | |
| 5 | 12 | 15 | 46 | 46 | 46 | 46 | 47 | 47 | 49 | 50 | 54 | 57 | 61 | 63 | 73 | 82 | 88 | 67 | 48 | 57 | 62 | 21 | -8 | 39 | 49,5 | 238 | |
| 6 | 39 | 43 | 34 | 41 | 33 | 42 | 49 | 50 | 50 | 53 | 54 | 58 | 57 | 57 | 55 | 56 | 55 | 53 | 54 | 45 | 33 | 40 | 45 | 45 | 36 | 46,8 | 50 |
| 7 | 42 | 43 | 36 | 38 | 47 | 39 | 45 | 48 | 47 | 51 | 52 | 54 | 53 | 56 | 57 | 56 | 53 | 52 | 51 | 53 | 47 | 44 | 37 | 40 | 48,1 | 37 | |
| 8 | 42 | 47 | 45 | 43 | 45 | 45 | 46 | 49 | 50 | 53 | 55 | 58 | 57 | 56 | 53 | 52 | 55 | 56 | 54 | 55 | 45 | 47 | 44 | 44 | 50,0 | 25 | |
| 9 | 47 | 50 | 47 | 46 | 46 | 46 | 46 | 47 | 50 | 53 | 56 | 58 | 58 | 57 | 56 | 55 | 53 | 53 | 53 | 55 | 55 | 53 | 51 | 50 | 52,0 | 14 | |
| 10 | 49 | 47 | 44 | 44 | 44 | 44 | 44 | 45 | 47 | 48 | 47 | 50 | 53 | 55 | 57 | 56 | 56 | 54 | 53 | 53 | 57 | 55 | 48 | 41 | 48,3 | 73 | |
| 11 | 18 | 27 | 33 | 38 | 47 | 46 | 48 | 51 | 52 | 58 | 59 | 60 | 62 | 64 | 64 | 65 | 65 | 60 | 62 | 60 | 62 | 60 | 59 | 39 | 42 | 50,6 | 95 |
| 12 | 43 | 41 | 39 | 42 | 44 | 48 | 50 | 50 | 53 | 54 | 54 | 55 | 56 | 54 | 55 | 56 | 55 | 56 | 57 | 56 | 55 | 47 | 50,7 | 31 | | | |
| 13 | 48 | 47 | 40 | 24 | 51 | 53 | 53 | 54 | 54 | 56 | 56 | 57 | 57 | 56 | 60 | 63 | 63 | 63 | 63 | 53 | 48 | 48 | 45 | 45 | 26 | | |
| 14 | 38 | 34 | 27 | 39 | 45 | 47 | 48 | 51 | 51 | 53 | 56 | 56 | 55 | 55 | 55 | 54 | 53 | 53 | 53 | 52 | 52 | 51 | 51 | 51 | 51,8 | 15 | |
| 15 | 49 | 48 | 48 | 46 | 46 | 47 | 48 | 48 | 51 | 53 | 57 | 56 | 55 | 55 | 54 | 53 | 53 | 53 | 56 | 56 | 56 | 56 | 51 | 51,7 | 28 | | |
| 16 | 42 | 42 | 45 | 41 | 27 | 48 | 45 | 55 | 54 | 55 | 53 | 55 | 53 | 55 | 53 | 55 | 56 | 59 | 60 | 56 | 52 | 52 | 45 | 45 | 50,3 | 55 | |
| 17 | 39 | 39 | 43 | 44 | 45 | 47 | 52 | 53 | 56 | 59 | 55 | 54 | 54 | 53 | 53 | 55 | 55 | 55 | 54 | 54 | 55 | 56 | 51 | 50,9 | 26 | | |
| 18 | 49 | 48 | 48 | 49 | 49 | 50 | 46 | 47 | 49 | 51 | 54 | 55 | 54 | 55 | 53 | 51 | 56 | 54 | 55 | 56 | 56 | 56 | 54 | 51,8 | 15 | | |
| 19 | 51 | 49 | 46</ | | | | | | | | | | | | | | | | | | | | | | | | |

Resuming Tables.

| | | Diurnal Variation. QUIET VALUES. | | | | | | | | | | | | | | | | | | | | LOCAL NOON = 10h44.2m Gr.M.T. | | |
|--|-----|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|-------|----|----|----|----|------|----|----|-------------------------------|----|----|
| | | Declination. Unit Gamma. + West. | | | | | | | | | | | | | | | | | | | | LOCAL NOON = 10h44.2m Gr.M.T. | | |
| 1932 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| JANUARY | -4 | -4 | -3 | -2 | -1 | -1 | 0 | 1 | 2 | 4 | 5 | 5 | 4 | 2 | 2 | 1 | 0 | -2 | -3 | -4 | -4 | -4 | -4 | |
| FEBRUARY | -2 | -3 | -3 | -3 | -4 | -3 | -4 | -4 | -4 | -1 | 1 | 4 | 6 | 5 | 4 | 3 | 2 | 1 | 1 | 0 | -1 | -2 | -2 | |
| MARCH | -2 | -4 | -4 | -5 | -6 | -6 | -6 | -6 | -4 | 0 | 5 | 9 | 11 | 10 | 8 | 5 | 3 | 0 | -1 | 0 | -1 | -1 | -1 | |
| APRIL | -6 | -7 | -9 | -11 | -12 | -12 | -8 | -6 | -2 | 4 | 10 | 13 | 14 | 15 | 10 | 6 | 4 | 3 | 3 | 1 | 0 | -2 | -4 | |
| MAY | -8 | -14 | -17 | -18 | -19 | -19 | -18 | -14 | -7 | 2 | 10 | 15 | 17 | 14 | 10 | 9 | 8 | 9 | 10 | 10 | 9 | 6 | 1 | |
| JUNE | -13 | -16 | -19 | -21 | -22 | -21 | -18 | -12 | -3 | 7 | 13 | 16 | 17 | 15 | 14 | 12 | 12 | 12 | 11 | 10 | 9 | 4 | -2 | |
| JULY | -13 | -15 | -17 | -19 | -21 | -20 | -19 | -15 | -7 | 1 | 10 | 17 | 17 | 16 | 13 | 11 | 9 | 9 | 11 | 11 | 9 | 5 | 0 | |
| AUGUST | -10 | -15 | -17 | -19 | -18 | -16 | -14 | -9 | -3 | 3 | 11 | 16 | 17 | 14 | 11 | 8 | 6 | 4 | 5 | 6 | 5 | 2 | -4 | |
| SEPTEMBER | -8 | -11 | -13 | -14 | -15 | -15 | -13 | -10 | -3 | 3 | 12 | 14 | 15 | 13 | 11 | 8 | 5 | 6 | 5 | 3 | 1 | -1 | -3 | |
| OCTOBER | -6 | -7 | -8 | -9 | -8 | -7 | -6 | -5 | -3 | 0 | 8 | 10 | 11 | 9 | 7 | 5 | 6 | 7 | 5 | 3 | 0 | -2 | -5 | |
| NOVEMBER | -4 | -5 | -6 | -6 | -5 | -5 | -4 | -2 | 2 | 6 | 8 | 9 | 7 | 5 | 3 | 4 | 3 | 2 | 0 | -2 | -4 | -5 | -5 | |
| DECEMBER | -1 | -2 | -2 | -2 | -3 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 3 | 2 | 1 | 0 | -1 | -2 | -3 | -3 | -3 | -3 | |
| MEAN | -6 | -8 | -10 | -11 | -11 | -11 | -9 | -7 | -3 | 2 | 8 | 11 | 11 | 10 | 8 | 6 | 5 | 4 | 4 | 3 | 2 | 0 | -3 | |
| | | Horizontal Intensity. Unit Gamma. | | | | | | | | | | | | | | | | | | | | | | |
| JANUARY | -2 | -1 | 0 | 1 | 1 | 2 | 1 | 1 | 0 | -1 | -1 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | -1 | |
| FEBRUARY | -1 | 0 | 1 | 2 | 3 | 4 | 2 | 1 | -3 | -7 | -10 | -8 | -5 | -1 | 1 | 3 | 5 | 5 | 5 | 4 | 3 | 1 | 0 | |
| MARCH | -1 | 1 | 1 | 3 | 5 | 4 | 2 | -3 | -8 | -14 | -16 | -12 | -7 | -2 | 1 | 4 | 6 | 7 | 7 | 7 | 6 | 3 | 1 | |
| APRIL | 0 | 2 | 5 | 7 | 7 | 4 | 0 | -8 | -15 | -18 | -20 | -13 | -5 | 0 | 5 | 8 | 10 | 10 | 10 | 8 | 5 | 3 | 2 | |
| MAY | 4 | 5 | 7 | 8 | 4 | -1 | -8 | -15 | -21 | -22 | -20 | -14 | -8 | 0 | 5 | 9 | 11 | 11 | 11 | 9 | 8 | 5 | 3 | |
| JUNE | 4 | 6 | 6 | 6 | 1 | -4 | -9 | -16 | -21 | -24 | -22 | -16 | -9 | -2 | 4 | 8 | 11 | 13 | 13 | 13 | 11 | 9 | 4 | |
| JULY | 2 | 3 | 4 | 5 | 2 | -2 | -7 | -12 | -17 | -20 | -20 | -13 | -8 | -3 | 2 | 5 | 8 | 12 | 14 | 15 | 12 | 8 | 5 | |
| AUGUST | 2 | 3 | 3 | 3 | 1 | -3 | -8 | -13 | -16 | -19 | -17 | -11 | -5 | 0 | 4 | 8 | 11 | 13 | 14 | 13 | 9 | 5 | 3 | |
| SEPTEMBER | 2 | 3 | 4 | 4 | 1 | -2 | -6 | -11 | -17 | -18 | -13 | -8 | -4 | 0 | 3 | 6 | 9 | 11 | 13 | 12 | 10 | 7 | 4 | |
| OCTOBER | 1 | 2 | 3 | 5 | 5 | 2 | -3 | -10 | -15 | -17 | -14 | -10 | -5 | 0 | 5 | 7 | 9 | 10 | 10 | 7 | 5 | 3 | 2 | |
| NOVEMBER | -3 | 0 | 1 | 3 | 5 | 5 | -1 | -5 | -8 | -9 | -6 | -2 | 0 | 3 | 5 | 6 | 5 | 4 | 2 | 0 | 0 | -1 | -3 | |
| DECEMBER | -3 | -2 | -1 | 0 | 2 | 4 | 2 | 0 | -1 | -4 | -4 | -2 | 0 | 1 | 3 | 4 | 4 | 3 | 2 | 0 | -1 | -3 | -3 | |
| MEAN | 0 | 2 | 3 | 4 | 3 | 1 | -2 | -7 | -11 | -14 | -15 | -10 | -5 | -1 | 3 | 5 | 7 | 9 | 9 | 8 | 6 | 4 | 2 | |
| | | Vertical Intensity. Unit Gamma. | | | | | | | | | | | | | | | | | | | | | | |
| JANUARY | 2 | -2 | -2 | -4 | -3 | -3 | -2 | -2 | -2 | -1 | -1 | 1 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | |
| FEBRUARY | -4 | -2 | -2 | -1 | -2 | -2 | -3 | -1 | -1 | 0 | 1 | 1 | 2 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | -1 | -2 | -3 | |
| MARCH | -2 | -3 | -3 | -2 | -2 | -3 | -2 | -1 | 0 | 0 | -1 | -1 | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 0 | -1 | -2 | -2 | |
| APRIL | -2 | 0 | 1 | 0 | -1 | -1 | -3 | -1 | -1 | -2 | 0 | 3 | 3 | 4 | 5 | 4 | 3 | 3 | 2 | 1 | -2 | -2 | -2 | |
| MAY | -2 | 0 | 0 | -1 | -1 | -1 | -1 | -1 | -1 | -3 | -5 | -2 | 2 | 4 | 6 | 7 | 9 | 5 | 1 | -3 | -5 | -5 | -3 | |
| JUNE | 1 | 3 | 4 | 2 | 2 | 1 | 1 | 0 | -1 | -2 | -3 | -3 | -5 | -2 | -1 | 0 | 3 | 7 | 2 | 0 | -5 | -5 | -1 | |
| JULY | 4 | 4 | 3 | 2 | 3 | 2 | -1 | -3 | -4 | -3 | -7 | -6 | -7 | -2 | 3 | 4 | 4 | 1 | 1 | 1 | 0 | -2 | -1 | |
| AUGUST | 1 | 0 | 0 | 0 | -1 | -1 | -3 | -4 | -7 | -4 | -1 | 1 | 3 | 3 | 8 | 4 | 1 | -3 | -3 | -2 | -1 | -1 | -1 | |
| SEPTEMBER | -4 | -3 | -2 | 0 | 1 | 2 | 0 | -1 | 0 | 0 | 3 | 6 | 5 | 4 | -1 | -1 | -3 | -3 | -3 | -2 | -1 | -2 | -2 | |
| OCTOBER | -1 | -1 | -2 | -3 | -5 | -3 | -2 | -1 | 0 | 1 | 0 | 2 | 5 | 6 | 4 | 3 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | |
| NOVEMBER | -2 | -2 | -2 | -3 | -4 | -3 | 0 | 0 | 0 | 1 | 2 | 4 | 3 | 4 | 3 | 3 | 5 | 4 | 4 | 0 | -2 | -3 | -3 | |
| DECEMBER | 0 | -1 | -2 | -4 | -2 | -2 | -1 | 0 | 1 | 2 | 3 | 3 | 1 | 1 | 0 | -1 | -1 | 1 | 2 | 2 | 0 | -1 | 0 | |
| MEAN | -1 | -1 | -1 | -1 | -1 | -1 | -2 | -1 | -1 | 1 | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 0 | -2 | -1 | -1 | -1 | -1 | |
| | | Monthly Means. | | | | | | | | | | | | | | | | | | | | | | |
| DECLINATION. | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | MEAN | | | | | | | | | | |
| DIRECT VALUES. D = 3° W + ... | | 53.8 | 52.6 | 50.2 | 49.0 | 49.7 | 51.0 | 50.4 | 48.6 | 46.9 | 45.7 | 45.8 | 44.7 | 49.0 | | | | | | | | | | |
| QUIET VALUES. D ₀ = 3° W + ... | | 55.3 | 54.3 | 53.8 | 52.3 | 51.0 | 51.0 | 50.5 | 50.1 | 49.0 | 47.5 | 47.2 | 45.6 | 50.6 | | | | | | | | | | |
| RANGE | | 72 | 54 | 99 | 108 | 84 | 43 | 41 | 61 | 72 | 54 | 37 | 62 | 61.2 | | | | | | | | | | |
| QUIET RANGE | | 2.7 | 3.0 | 5.1 | 7.7 | 10.7 | 11.6 | 11.3 | 10.7 | 9.0 | 5.9 | 4.5 | 2.1 | 7.0 | | | | | | | | | | |
| STORMINESS. MEAN (UNIT ⚡) | | -6 | -6 | -11 | -10 | -4 | 0 | 0 | -6 | -7 | -6 | -4 | -3 | -5.3 | | | | | | | | | | |
| DIURNAL SUM PS (UNIT ⚡) | | 71 | 85 | 110 | 121 | 174 | 89 | 94 | 105 | 96 | 79 | 51 | 96 | 98 | | | | | | | | | | |
| NS | | 213 | 228 | 377 | 364 | 274 | 98 | 88 | 208 | 269 | 221 | 151 | 167 | 221 | | | | | | | | | | |
| AS | | 284 | 312 | 488 | 486 | 446 | 188 | 182 | 313 | 365 | 299 | 202 | 263 | 319 | | | | | | | | | | |
| HORIZONTAL INTENSITY. | | | | | | | | | | | | | | | | | | | | | | | | |
| DIRECT VALUES. H = 11600 + ... | | 27 | 17 | -8 | -11 | -1 | 21 | 14 | -3 | -14 | -13 | -2 | -12 | -1.2 | | | | | | | | | | |
| QUIET VALUES. H ₀ = 11600 + ... | | 41 | 36 | 32 | 30 | 25 | 24 | 20 | 15 | 10 | 5 | 4 | 2 | 20.3 | | | | | | | | | | |
| RANGE | | 471 | 454 | 656 | 681 | 530 | 276 | 334 | 466 | 563 | 483 | 302 | 372 | 466 | | | | | | | | | | |
| QUIET RANGE | | 4 | 15 | 23 | 30 | 33 | 39 | 36 | 33 | 31 | 27 | 14 | 8 | 24.3 | | | | | | | | | | |
| STORMINESS. MEAN (UNIT ⚡) | | -14 | -19 | -40 | -42 | -26 | -4 | -6 | -19 | -24 | -18 | -7 | -14 | -19.4 | | | | | | | | | | |
| DIURNAL SUM PS (UNIT ⚡) | | 250 | 275 | 400 | 438 | 426 | 299 | 262 | 347 | 342 | 286 | 215 | 202 | 311 | | | | | | | | | | |
| NS | | 580 | 731 | 1353 | 1440 | 1038 | 395 | 417 | 757 | 908 | 730 | 385 | 524 | 772 | | | | | | | | | | |
| AS | | 830 | 1006 | 1753 | 1878 | 1464 | 694 | 679 | 1104 | 1250 | 1016 | 600 | 726 | 1083 | | | | | | | | | | |
| VERTICAL INTENSITY. | | | | | | | | | | | | | | | | | | | | | | | | |
| DIRECT VALUES. V = 50100 + ... | | 85 | 87 | 88 | 95 | 102 | 106 | 102 | 102 | 98 | 93 | 90 | 88 | 94.7 | | | | | | | | | | |
| QUIET VALUES. V ₀ = 50100 + ... | | 94 | 94 | 92 | 102 | 105 | 105 | 103 | 101 | 102 | 98 | 93 | 92 | 98.3 | | | | | </td | | | | | |

Resuming Tables.

| | | Storminess. | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|----------------------------------|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
| | | Declination. Unit Gamma. + West. | | | | | | | | | | | | | | | | | | | | | | | |
| 1932 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| JAN | MPS | 1 | 1 | 0 | 1 | 3 | 4 | 5 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 5 | 5 | 6 | 4 | 4 | 2 | 4 | 0 | 1 | 2 |
| FEB | MPS | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 6 | 6 | 4 | 4 | 7 | 8 | 7 | 7 | 2 | 3 | 5 | 5 | 2 | 1 | 1 | 0 | |
| MAR | MPS | 0 | 0 | 0 | 0 | 1 | 3 | 5 | 6 | 3 | 3 | 4 | 6 | 6 | 8 | 9 | 12 | 7 | 10 | 11 | 7 | 2 | 2 | 1 | |
| APR | MPS | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 1 | 3 | 6 | 7 | 11 | 6 | 14 | 17 | 15 | 12 | 10 | 6 | 1 | 2 | |
| MAY | MPS | 0 | 2 | 0 | 1 | 2 | 5 | 6 | 7 | 6 | 5 | 4 | 5 | 10 | 11 | 13 | 18 | 22 | 18 | 19 | 12 | 7 | 0 | 0 | |
| JUN | MPS | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 5 | 6 | 9 | 11 | 10 | 11 | 11 | 4 | 2 | 2 | 1 | |
| JUL | MPS | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 4 | 5 | 6 | 6 | 7 | 7 | 10 | 10 | 10 | 5 | 2 | 2 | |
| AUG | MPS | 1 | 0 | 0 | 1 | 0 | 2 | 3 | 2 | 2 | 4 | 3 | 4 | 6 | 6 | 11 | 11 | 13 | 10 | 6 | 2 | 1 | 1 | | |
| SEP | MPS | 0 | 0 | 0 | 0 | 3 | 2 | 9 | 8 | 5 | 3 | 2 | 4 | 4 | 4 | 8 | 10 | 8 | 8 | 5 | 5 | 3 | 2 | 0 | |
| OCT | MPS | 0 | 0 | 0 | 0 | 2 | 3 | 4 | 4 | 3 | 2 | 4 | 5 | 7 | 8 | 5 | 9 | 6 | 5 | 3 | 2 | 0 | 0 | | |
| NOV | MPS | 1 | 1 | 1 | 1 | 3 | 5 | 4 | 4 | 4 | 3 | 2 | 2 | 3 | 4 | 5 | 3 | 3 | 1 | 1 | 2 | 2 | 0 | 0 | |
| DEC | MPS | 0 | 1 | 0 | 1 | 2 | 4 | 5 | 3 | 2 | 3 | 3 | 4 | 4 | 6 | 7 | 8 | 8 | 11 | 10 | 7 | 5 | 1 | 1 | |
| | MEAN | 0 | 1 | 0 | 1 | 2 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 5 | 7 | 8 | 9 | 9 | 9 | 9 | 7 | 4 | 1 | 1 | |
| JAN | MNS | 25 | 22 | 9 | 7 | 4 | 2 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 2 | 2 | 10 | 7 | 5 | 16 | 8 | 7 | 18 | 24 | 31 |
| FEB | MNS | 27 | 24 | 16 | 15 | 7 | 4 | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 5 | 11 | 11 | 11 | 8 | 12 | 10 | 25 | 36 | | |
| MAR | MNS | 37 | 67 | 47 | 25 | 8 | 5 | 2 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 8 | 7 | 14 | 18 | 24 | 28 | 30 | 44 | |
| APR | MNS | 62 | 60 | 56 | 22 | 9 | 5 | 3 | 2 | 3 | 3 | 4 | 2 | 1 | 1 | 3 | 3 | 2 | 2 | 3 | 9 | 5 | 25 | 34 | 47 |
| MAY | MNS | 48 | 38 | 27 | 19 | 15 | 11 | 8 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 2 | 3 | 6 | 19 | 30 | 31 | |
| JUN | MNS | 14 | 16 | 12 | 3 | 1 | 2 | 2 | 2 | 4 | 4 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 5 | 9 | 10 | |
| JUL | MNS | 15 | 10 | 9 | 4 | 3 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 11 | 15 | |
| AUG | MNS | 27 | 31 | 27 | 11 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 4 | 8 | 18 | 33 |
| SEP | MNS | 32 | 31 | 23 | 15 | 5 | 3 | 2 | 0 | 1 | 1 | 3 | 1 | 2 | 4 | 5 | 5 | 2 | 4 | 3 | 10 | 12 | 35 | 36 | 37 |
| OCT | MNS | 26 | 26 | 17 | 12 | 3 | 1 | 1 | 0 | 1 | 2 | 2 | 2 | 3 | 2 | 5 | 5 | 7 | 5 | 8 | 14 | 24 | 27 | 25 | |
| NOV | MNS | 8 | 7 | 8 | 8 | 3 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 3 | 3 | 6 | 6 | 9 | 11 | 9 | 7 | 15 | 16 | 13 | |
| DEC | MNS | 23 | 21 | 12 | 9 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 4 | 5 | 8 | 12 | 18 | 17 | 24 | | |
| | MEAN | 28 | 29 | 22 | 13 | 5 | 4 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 6 | 7 | 9 | 18 | 23 | 29 | |
| JAN | MPS - MNS | -24 | -21 | -9 | -6 | -1 | 2 | 4 | 2 | 2 | 1 | 0 | -2 | 0 | 2 | 3 | -5 | -1 | -1 | -12 | -6 | -3 | -18 | -23 | -29 |
| FEB | MPS - MNS | -27 | -24 | -16 | -15 | -6 | -1 | 2 | 5 | 6 | 5 | 4 | 3 | 7 | 8 | 6 | 2 | -9 | -8 | -6 | -3 | -10 | -9 | -22 | -35 |
| MAR | MPS - MNS | -37 | -67 | -47 | -25 | -7 | -2 | 3 | 4 | 2 | 1 | 3 | 3 | 5 | 7 | 8 | 9 | -1 | -3 | -3 | -11 | -22 | -26 | -29 | -40 |
| APR | MPS - MNS | -61 | -59 | -56 | -22 | -8 | -3 | -1 | 0 | 0 | -2 | -1 | 4 | 6 | 10 | 3 | 11 | 15 | 13 | 9 | 1 | 1 | -24 | -33 | -46 |
| MAY | MPS - MNS | -48 | -36 | -27 | -18 | -13 | -6 | -2 | 5 | 4 | 3 | 3 | 4 | 8 | 10 | 12 | 17 | 22 | 18 | 17 | 9 | 1 | -19 | -30 | -31 |
| JUN | MPS - MNS | -13 | -15 | -11 | -2 | 0 | -1 | 0 | -1 | -3 | -3 | -2 | 1 | 1 | 4 | 5 | 6 | 11 | 10 | 11 | 10 | 1 | -4 | -8 | -9 |
| JUL | MPS - MNS | -14 | -10 | -8 | -3 | -1 | 0 | 0 | 2 | 2 | 2 | 0 | 3 | 4 | 6 | 6 | 7 | 7 | 10 | 10 | 9 | 3 | -6 | -9 | -14 |
| AUG | MPS - MNS | -26 | -31 | -27 | -10 | -4 | -2 | 0 | -2 | -1 | 0 | 0 | 2 | 5 | 4 | 4 | 10 | 10 | 12 | 7 | 4 | -2 | -7 | -17 | -32 |
| SEP | MPS - MNS | -32 | -31 | -23 | -15 | -2 | -1 | 7 | 8 | 4 | 2 | -1 | 3 | 2 | 0 | 5 | 7 | 6 | 4 | 2 | -5 | -9 | -33 | -37 | |
| OCT | MPS - MNS | -26 | -26 | -17 | -12 | -1 | 2 | 3 | 4 | 2 | 3 | 0 | 2 | 3 | 4 | 6 | 0 | 4 | 1 | 0 | -6 | -12 | -24 | -27 | |
| NOV | MPS - MNS | -7 | -6 | -7 | -7 | 0 | 2 | 3 | 3 | 2 | 0 | -1 | -2 | 0 | 1 | 2 | -3 | -3 | -8 | -10 | -7 | -5 | -15 | -18 | -13 |
| DEC | MPS - MNS | -23 | -20 | -12 | -8 | -1 | 3 | 5 | 3 | 1 | 2 | 2 | 3 | 3 | 4 | 6 | 7 | 5 | -1 | -7 | -17 | -16 | -22 | | |
| | MEAN | -28 | -29 | -22 | -12 | -4 | -1 | 2 | 3 | 2 | 1 | 1 | 2 | 4 | 5 | 6 | 6 | 6 | 5 | 3 | 0 | -5 | -17 | -22 | -28 |
| Horizontal Intensity. Unit Gamma. | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1932 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| JAN | MPS | 2 | 2 | 2 | 1 | 2 | 4 | 4 | 5 | 3 | 4 | 7 | 8 | 12 | 17 | 22 | 29 | 38 | 30 | 28 | 22 | 7 | 3 | 1 | 0 |
| FEB | MPS | 0 | 1 | 2 | 0 | 2 | 2 | 5 | 7 | 4 | 6 | 9 | 18 | 20 | 34 | 42 | 36 | 34 | 17 | 14 | 19 | 4 | 2 | 0 | 0 |
| MAR | MPS | 0 | 0 | 0 | 1 | 5 | 5 | 7 | 6 | 10 | 16 | 27 | 34 | 45 | 47 | 41 | 54 | 47 | 33 | 14 | 6 | 2 | 2 | 1 | |
| APR | MPS | 0 | 2 | 0 | 0 | 1 | 3 | 2 | 8 | 10 | 17 | 32 | 34 | 35 | 47 | 57 | 63 | 61 | 41 | 22 | 4 | 0 | 0 | 0 | |
| MAY | MPS | 0 | 1 | 1 | 2 | 2 | 5 | 6 | 12 | 14 | 15 | 21 | 31 | 41 | 53 | 49 | 52 | 48 | 36 | 26 | 12 | 1 | 1 | 0 | |
| JUN | MPS | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 4 | 7 | 8 | 13 | 16 | 28 | 26 | 32 | 35 | 37 | 32 | 15 | 3 | 0 | 0 | 0 | |
| JUL | MPS | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 7 | 11 | 9 | 12 | 28 | 35 | 38 | 41 | 35 | 27 | 9 | 3 | 1 | 1 | |
| AUG | MPS | 0 | 0 | 1 | 2 | 3 | 5 | 5 | 4 | 6 | 11 | 14 | 19 | 24 | 36 | 51 | 63 | 45 | 28 | 16 | 5 | 3 | 1 | 0 | |
| SEP | MPS | 1 | 0 | 1 | 1 | 2 | 3 | 2 | 5 | 7 | 11 | 13 | 21 | 30 | 45 | 58 | 58 | 44 | 23 | 14 | 4 | 1 | 1 | 0 | |
| OCT | MPS | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 7 | 10 | 19 | 21 | 31 | 42 | 44 | 44 | 48 | 28 | 16 | 11 | 6 | 2 | 0 | 0 | |
| NOV | MPS | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 2 | 4 | 6 | 8 | 13 | 20 | 24 | 35 | 37 | 22 | 18 | 13 | 4 | 1 | 0 | |
| DEC | MPS | 1 | 1 | 0 | 1 | 3 | 3 | 2 | 4 | 3 | 5 | 5 | 9 | 14 | 21 | 23 | 21 | 22 | 21 | 19 | 8 | 7 | 3 | 2 | |
| | MEAN | 0 | 1 | 1 | 1 | 2 | 3 | 3 | 5 | 6 | 9 | 15 | 19 | 25 | 31 | 40 | 44 | 40 | 28 | 20 | 10 | 3 | 1 | 0 | |
| JAN | MNS | 95 | 70 | 24 | 15 | 8 | 3 | 2 | 1 | 3 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 3 | 4 | 10 | 38 | 74 | 114 | 117 |
| FEB | MNS | 107 | 80 | 53 | 29 | 12 | 5 | 3 | 2 | 3 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 11 | 23 | 39 | 59 | 70 | 102 | 131 |
| MAR | MNS | 178 | 172 | 119 | 56 | 24 | 16 | 4 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 45 | 80 | 146 | 156 | 180 | 165 | |
| APR | MNS | 226 | 174 | 135 | 64 | 43 | 16 | 9 | 4 | 3 | 2 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 7 | 29 | 58 | 93 | 155 | 186 | 216 |
| MAY | MNS | 167 | 130 | 93 | 69 | 40 | 38 | 15 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 14 | 18 | 25 | 62 | 95 | 138 | 125 | | | |
| JUN | MNS | 79 | 60 | 32 | 12 | 8 | 3 | 2 | 0 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 4 | 25 | 51 | 49 | 61 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|-----------|------|------|------|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|------|------|------|------|
| JUL | MNS | 57 | 31 | 25 | 15 | 9 | 6 | 7 | 5 | 4 | 4 | 3 | 3 | 4 | 2 | 0 | 0 | 0 | 0 | 1 | 5 | 25 | 67 | 73 | 71 |
| AUG | MNS | 109 | 84 | 78 | 26 | 10 | 7 | 6 | 8 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 0 | 1 | 11 | 24 | 20 | 45 | 76 | 123 | 144 |
| SEP | MNS | 111 | 87 | 59 | 35 | 15 | 7 | 5 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 7 | 12 | 36 | 86 | 153 | 157 | 129 |
| OCT | MNS | 108 | 81 | 45 | 22 | 5 | 6 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 8 | 11 | 40 | 89 | 84 | 114 | 111 |
| NOV | MNS | 27 | 18 | 19 | 17 | 12 | 9 | 11 | 5 | 5 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 5 | 5 | 5 | 35 | 73 | 79 | 53 |
| DEC | MNS | 70 | 70 | 40 | 25 | 11 | 5 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 2 | 32 | 51 | 70 | 58 | 76 | |
| MEAN | | 111 | 88 | 60 | 32 | 16 | 10 | 6 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 7 | 15 | 30 | 62 | 94 | 115 | 117 |
| JAN | MPS - MNS | -93 | -68 | -22 | -14 | -6 | 1 | 2 | 4 | 1 | 3 | 5 | 8 | 11 | 16 | 22 | 28 | 37 | 27 | 24 | 12 | -31 | -71 | -113 | -117 |
| FEB | MPS - MNS | -107 | -80 | -52 | -29 | -10 | -4 | 2 | 5 | 2 | 5 | 8 | 17 | 20 | 34 | 42 | 36 | 34 | 6 | -10 | -21 | -55 | -68 | -101 | -131 |
| MAR | MPS - MNS | -178 | -172 | -119 | -55 | -19 | -11 | 3 | 3 | 9 | 15 | 26 | 34 | 45 | 47 | 41 | 54 | 47 | 25 | -31 | -74 | -144 | -154 | -180 | -165 |
| APR | MPS - MNS | -226 | -172 | -135 | -63 | -42 | -13 | -7 | 4 | 7 | 15 | 31 | 31 | 32 | 47 | 56 | 62 | 60 | 34 | -7 | -54 | -93 | -155 | -106 | -216 |
| MAY | MPS - MNS | -167 | -129 | -92 | -67 | -38 | -34 | -9 | 11 | 14 | 11 | 21 | 31 | 40 | 52 | 48 | 51 | 47 | 23 | 8 | -13 | -61 | -94 | -138 | -125 |
| JUN | MPS - MNS | -79 | -59 | -32 | -12 | -6 | -1 | 0 | 4 | 6 | 7 | 13 | 14 | 26 | 25 | 31 | 35 | 35 | 37 | 31 | 11 | -22 | -51 | -49 | -61 |
| JUL | MPS - MNS | -56 | -30 | -24 | -14 | -9 | -6 | -5 | -5 | -2 | 3 | 8 | 6 | 8 | 26 | 35 | 38 | 40 | 34 | 25 | 4 | -22 | -66 | -72 | -71 |
| AUG | MPS - MNS | -109 | -84 | -77 | -24 | -8 | -2 | -1 | -4 | 5 | 9 | 12 | 18 | 22 | 34 | 51 | 62 | 42 | 17 | -8 | -15 | -42 | -75 | -123 | -144 |
| SEP | MPS - MNS | -110 | -87 | -59 | -35 | -13 | -5 | -2 | 3 | 6 | 10 | 11 | 21 | 29 | 44 | 58 | 57 | 43 | 16 | 2 | -32 | -66 | -152 | -157 | -128 |
| OCT | MPS - MNS | -108 | -81 | -44 | -21 | -4 | -4 | 0 | -1 | 5 | 9 | 19 | 21 | 31 | 42 | 43 | 44 | 26 | 8 | 0 | -34 | -87 | -84 | -114 | -111 |
| NOV | MPS - MNS | -26 | -17 | -19 | -16 | -11 | -7 | -9 | -2 | -3 | 2 | 5 | 8 | 13 | 19 | 23 | 32 | 37 | 17 | 13 | 0 | -31 | -73 | -79 | -53 |
| DEC | MPS - MNS | -70 | -69 | -40 | -24 | -8 | -2 | 1 | 3 | 2 | 4 | 4 | 9 | 14 | 21 | 23 | 21 | 20 | 14 | 17 | -25 | -44 | -66 | -56 | -74 |
| MEAN | | -111 | -87 | -60 | -31 | -15 | -7 | -2 | 2 | 4 | 8 | 14 | 18 | 24 | 34 | 39 | 43 | 39 | 22 | 5 | -20 | -60 | -92 | -115 | -116 |

Vertical Intensity. Unit Gamma.

| 1932 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
|------|-----------|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| JAN | MPS | 6 | 5 | 1 | 1 | 1 | 0 | 1 | 3 | 8 | 10 | 12 | 13 | 10 | 11 | 13 | 14 | 13 | 9 | 6 | 4 | 5 | 14 | 9 | |
| FEB | MPS | 23 | 19 | 25 | 28 | 23 | 18 | 10 | 4 | 2 | 1 | 1 | 3 | 0 | 0 | 4 | 12 | 15 | 24 | 25 | 37 | 27 | 16 | 22 | 15 |
| MAR | MPS | 78 | 30 | 5 | 0 | 0 | 0 | 2 | 4 | 9 | 11 | 14 | 17 | 15 | 16 | 21 | 16 | 11 | 6 | 5 | 6 | 19 | 29 | 45 | 41 |
| APR | MPS | 41 | 14 | 7 | 0 | 0 | 0 | 2 | 5 | 6 | 11 | 11 | 9 | 7 | 9 | 7 | 6 | 9 | 5 | 4 | 2 | 31 | 52 | 43 | 56 |
| MAY | MPS | 31 | 11 | 5 | 0 | 1 | 1 | 2 | 2 | 5 | 7 | 10 | 14 | 11 | 15 | 15 | 12 | 8 | 7 | 1 | 2 | 21 | 30 | 43 | 33 |
| JUN | MPS | 18 | 1 | 0 | 0 | 1 | 1 | 2 | 3 | 4 | 7 | 9 | 10 | 16 | 19 | 16 | 14 | 14 | 5 | 3 | 4 | 5 | 12 | 15 | 20 |
| JUL | MPS | 1 | 1 | 0 | 0 | 0 | 0 | 4 | 4 | 7 | 7 | 12 | 12 | 16 | 13 | 11 | 16 | 17 | 11 | 8 | 4 | 9 | 13 | 10 | 12 |
| AUG | MPS | 12 | 15 | 10 | 0 | 1 | 1 | 3 | 7 | 12 | 16 | 14 | 14 | 14 | 17 | 23 | 13 | 11 | 6 | 6 | 6 | 10 | 21 | 31 | 26 |
| SEP | MPS | 14 | 9 | 2 | 6 | 0 | 0 | 0 | 3 | 6 | 9 | 11 | 13 | 11 | 15 | 16 | 16 | 14 | 16 | 9 | 13 | 33 | 29 | 20 | 4 |
| OCT | MPS | 13 | 2 | 1 | 0 | 1 | 1 | 2 | 3 | 5 | 9 | 10 | 15 | 18 | 20 | 19 | 16 | 15 | 12 | 7 | 9 | 21 | 17 | 19 | 2 |
| NOV | MPS | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 5 | 7 | 6 | 8 | 10 | 16 | 15 | 19 | 11 | 8 | 7 | 4 | 2 | 10 | 11 | 2 |
| DEC | MPS | 18 | 4 | 1 | 1 | 1 | 1 | 2 | 4 | 4 | 5 | 7 | 0 | 0 | 0 | 2 | 11 | 9 | 6 | 3 | 15 | 16 | 13 | 21 | |
| MEAN | | 21 | 93 | 5 | 3 | 3 | 2 | 3 | 4 | 6 | 8 | 10 | 11 | 11 | 13 | 13 | 13 | 12 | 10 | 7 | 8 | 17 | 21 | 24 | 20 |
| JAN | MNS | 40 | 35 | 32 | 21 | 16 | 11 | 6 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 9 | 10 | 22 | 32 | 26 | 27 | 26 | 34 | 50 |
| FEB | MNS | 8 | 9 | 7 | 1 | 1 | 2 | 3 | 4 | 8 | 10 | 11 | 14 | 12 | 14 | 16 | 1 | 11 | 5 | 6 | 4 | 5 | 16 | 29 | 25 |
| MAR | MNS | 26 | 32 | 43 | 52 | 39 | 28 | 11 | 5 | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 4 | 10 | 26 | 51 | 40 | 32 | 32 | 27 | 24 |
| APR | MNS | 30 | 42 | 51 | 50 | 43 | 28 | 11 | 3 | 2 | 1 | 1 | 1 | 5 | 7 | 9 | 13 | 17 | 22 | 30 | 38 | 20 | 24 | 28 | 35 |
| MAY | MNS | 24 | 37 | 38 | 37 | 37 | 28 | 13 | 7 | 2 | 1 | 2 | 2 | 2 | 2 | 4 | 7 | 12 | 15 | 17 | 21 | 15 | 9 | 12 | 25 |
| JUN | MNS | 14 | 25 | 27 | 21 | 15 | 6 | 4 | 3 | 1 | 1 | 3 | 1 | 1 | 0 | 2 | 1 | 2 | 4 | 5 | 7 | 7 | 5 | 12 | 12 |
| JUL | MNS | 23 | 20 | 18 | 20 | 16 | 9 | 4 | 2 | 2 | 1 | 2 | 2 | 1 | 5 | 5 | 1 | 1 | 3 | 2 | 5 | 7 | 9 | 18 | 20 |
| AUG | MNS | 29 | 23 | 26 | 35 | 18 | 8 | 3 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 15 | 16 | 11 | 9 | 14 | 16 | 15 | 18 |
| SEP | MNS | 29 | 25 | 30 | 32 | 30 | 23 | 11 | 4 | 3 | 1 | 1 | 1 | 5 | 6 | 7 | 22 | 17 | 10 | 6 | 7 | 15 | 24 | 31 | 40 |
| OCT | MNS | 33 | 43 | 31 | 23 | 14 | 11 | 4 | 1 | 4 | 0 | 0 | 1 | 0 | 6 | 10 | 11 | 22 | 15 | 7 | 7 | 20 | 25 | 28 | 38 |
| NOV | MNS | 27 | 14 | 12 | 13 | 13 | 10 | 6 | 4 | 3 | 1 | 0 | 0 | 0 | 2 | 3 | 5 | 8 | 13 | 10 | 11 | 17 | 19 | 26 | |
| DEC | MNS | 19 | 21 | 31 | 25 | 20 | 15 | 10 | 4 | 2 | 1 | 1 | 1 | 13 | 13 | 20 | 16 | 15 | 24 | 13 | 27 | 15 | 12 | 16 | |
| MEAN | | 25 | 27 | 29 | 28 | 22 | 15 | 7 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 5 | 6 | 7 | 11 | 14 | 16 | 17 | 17 | 22 | 45 |
| JAN | MPS - MNS | -34 | -30 | -31 | -20 | -15 | -11 | -5 | 1 | 7 | 9 | 11 | 13 | 10 | 11 | 13 | 5 | 3 | -15 | -26 | -22 | -21 | -21 | -20 | -41 |
| FEB | MPS - MNS | -15 | -10 | -18 | -27 | -22 | -16 | -7 | 0 | 6 | 9 | 10 | 11 | 12 | 14 | 12 | 3 | -4 | -19 | -19 | -33 | -22 | 0 | 7 | -10 |
| MAR | MPS - MNS | 52 | -2 | -38 | -52 | -39 | -28 | -9 | -1 | 7 | 10 | 14 | 16 | 15 | 15 | 20 | 12 | 1 | -20 | -46 | -34 | -13 | -3 | 18 | 17 |
| APR | MPS - MNS | 11 | -28 | -44 | -50 | -43 | -28 | -9 | 2 | 4 | 10 | 10 | 8 | 2 | 2 | -2 | -7 | -8 | -17 | -26 | -36 | 11 | 28 | 15 | 21 |
| MAY | MPS - MNS | 7 | -26 | -33 | -37 | -36 | -27 | -11 | -5 | 3 | 6 | 8 | 12 | 9 | 13 | 11 | 5 | -4 | -8 | -16 | -19 | 6 | 21 | 31 | 8 |
| JUN | MPS - MNS | 4 | -24 | -27 | -21 | -14 | -5 | -2 | 0 | 3 | 6 | 6 | 9 | 15 | 19 | 14 | 13 | 2 | -2 | -3 | -2 | 7 | 3 | 8 | |
| JUL | MPS - MNS | -22 | -19 | -18 | -20 | -16 | -9 | 0 | 2 | 5 | 6 | 10 | 10 | 15 | 8 | 6 | 15 | 16 | 8 | 6 | -1 | 2 | 4 | -8 | -8 |
| AUG | MPS - MNS | -17 | -8 | -16 | -35 | -17 | -7 | 0 | 6 | 12 | 16 | 13 | 13 | 16 | 22 | 4 | -4 | -10 | -5 | -3 | 14 | 5 | 16 | 8 | |
| SEP | MPS - MNS | -15 | -16 | -28 | -26 | -30 | -23 | -11 | -1 | 3 | 8 | 10 | 12 | 6 | 9 | 9 | 6 | 3 | 5 | 2 | 6 | 18 | 5 | -11 | -45 |
| OCT | MPS - MNS | -20 | -41 | -30 | -23 | -13 | -11 | -3 | 3 | 1 | 9 | 10 | 14 | 18 | 14 | 9 | 5 | -7 | -3 | 0 | 2 | 1 | -8 | -9 | -36 |
| NOV | MPS - MNS | -26 | -14 | -12 | -12 | -9 | -4 | -1 | 2 | 6 | 5 | 8 | 10 | 16 | 13 | 16 | 6 | 0 | -6 | -6 | -9 | -7 | -8 | -24 | |
| DEC | MPS - MNS | -1 | -17 | -30 | -24 | - | | | | | | | | | | | | | | | | | | | |

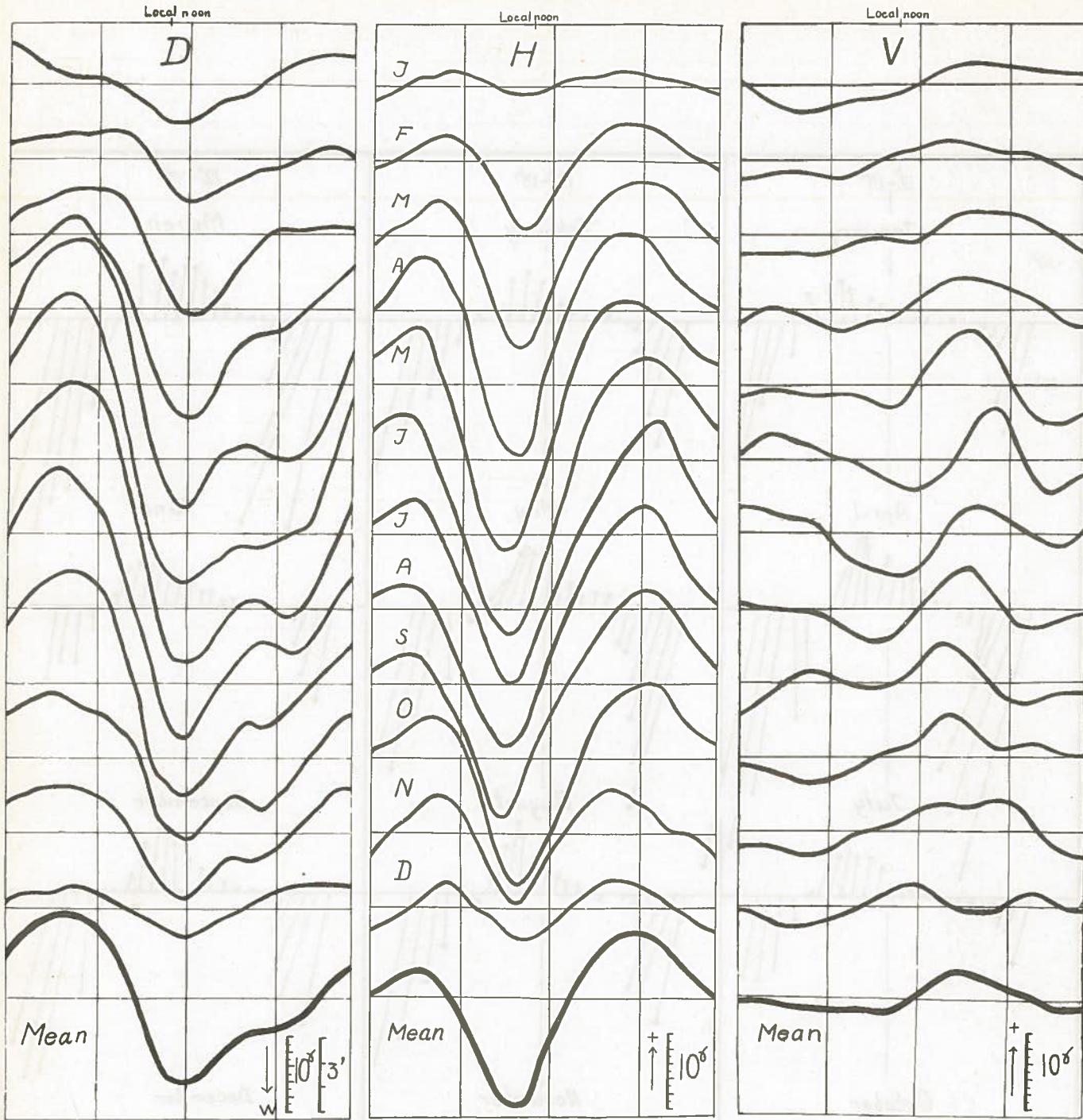


Fig. 1. The quiet Diurnal Variation, smoothed Values.

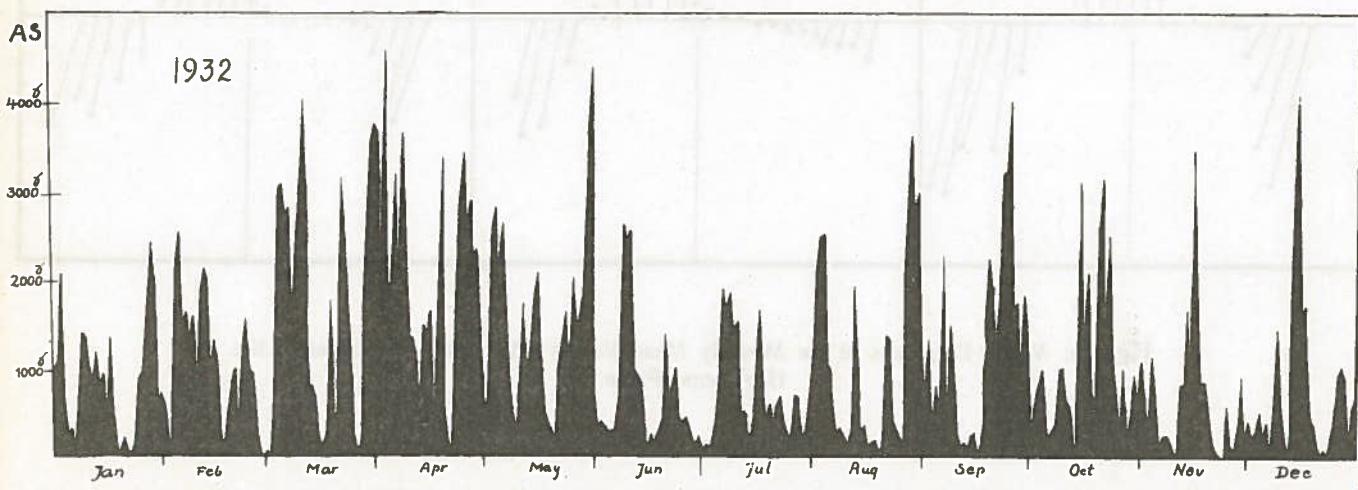


Fig. 2. Diagram of the Diurnal Sum of the Absolute Storminess in the Horizontal Intensity during 1932.

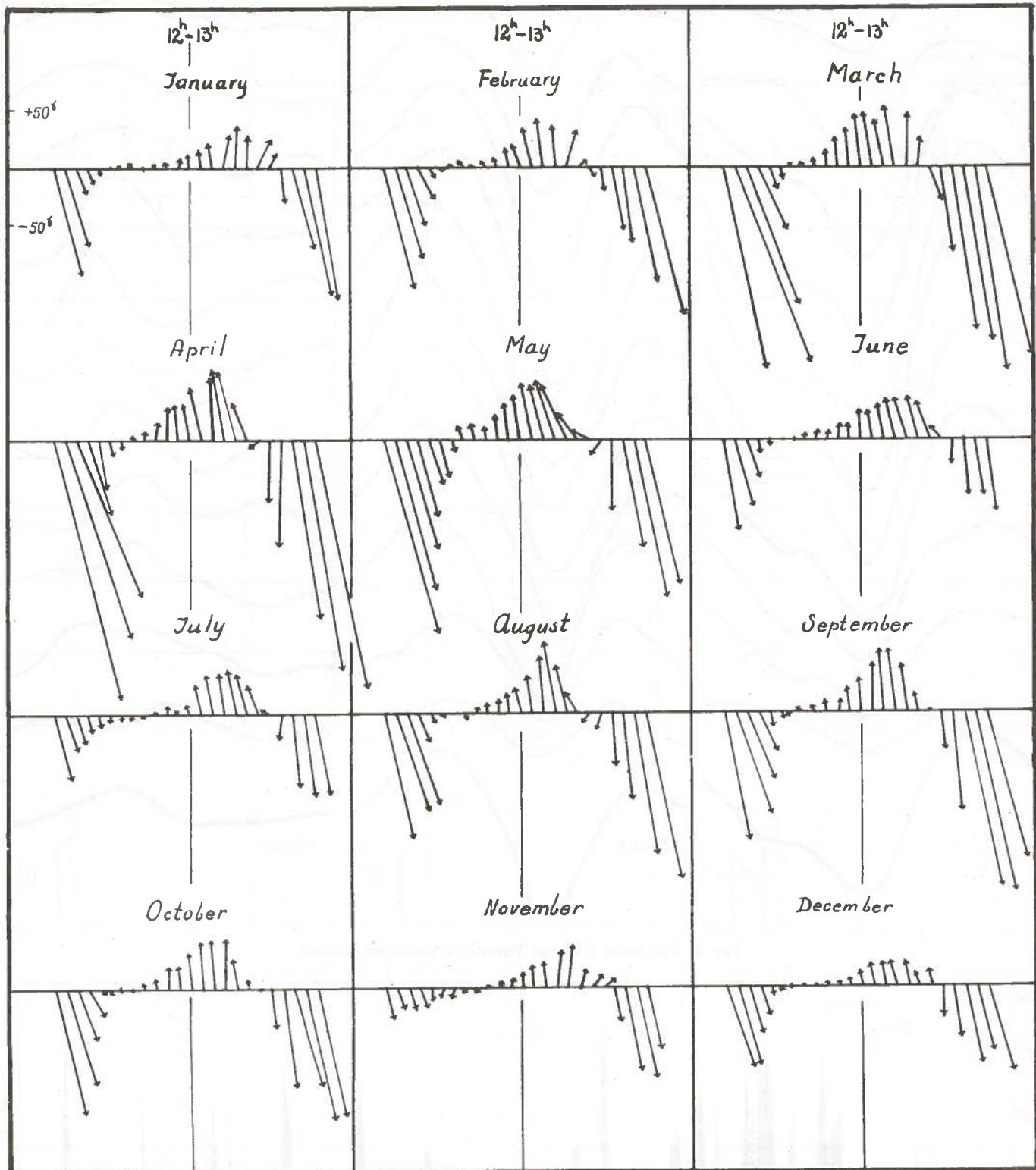


Fig. 3 a. Vector-Diagrams of the Monthly Mean Values (M) of the Storminess in the Horizontal Plane.

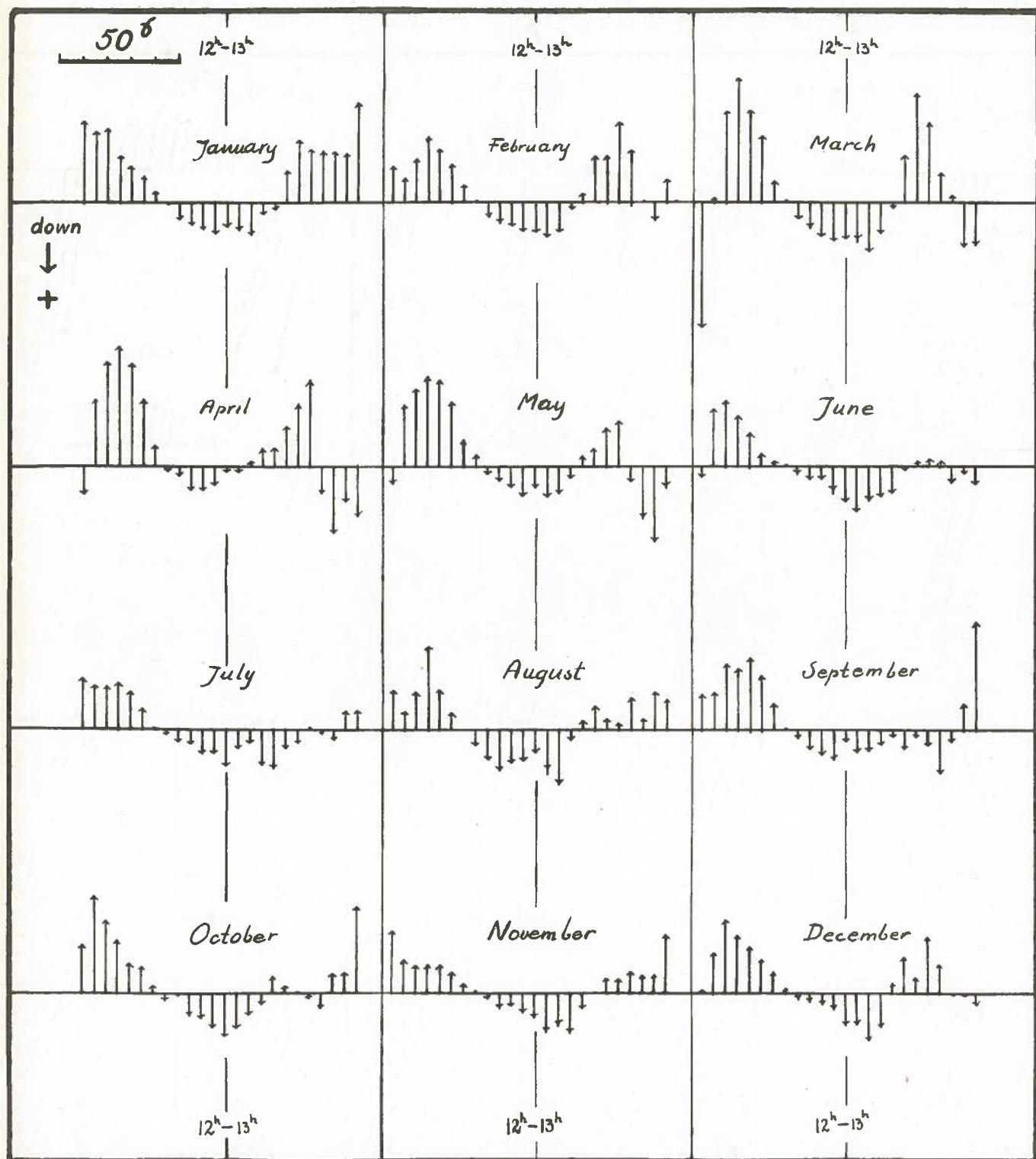


Fig. 3 b. Vector-Diagrams of the Monthly Mean Values (M) of the Storminess in the Vertical Intensity.

