Publikasjoner fra
DET NORSKE INSTITUTT FOR KOSMISK FYSIKK
Nr. 2

THE AURORAL OBSERVATORY AT TROMSÖ

($\varphi = 69° 39'.8$ N, $\lambda = 18° 56'.9$ E Gr.)

RESULTS OF MAGNETIC OBSERVATIONS FOR THE YEAR 1930

By

LEIV HARANG, O KROGNESS and
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PREFACE

BY

THE BOARD OF DIRECTORS.

The Board of Directors of "Det Norske Institutt for Kosmisk Fysikk" has thoroughly discussed the question as to the best way of publishing the magnetic records.

On the one hand we have tried to give the results in the form of tables which correspond to the usual way of representation, on the other hand the investigations of Kr. Birkeland and his analysis of magnetic storms, have shown the importance of a separate study of the perturbing forces and the fields of the magnetic perturbations, and we feel certain that a further study of magnetic phenomena along these lines will be of far reaching importance for the elucidation of these phenomena. It has, therefore, been our endeavour to find a representation of the observational data, which would meet both these requirements and facilitate a separate study of the various physical phenomena which are responsible for the magnetic variations.

These considerations have led us to adopt the following procedure of publication:

For each magnetic element we give two series of tables. One series gives in the usual way the actually observed hourly values of the magnetic elements. Two separate columns are given containing the daily mean (M) and the daily range (R). For each month we give one line (M) containing the monthly mean diurnal variation of the actual observed values, and another line (QM) containing the monthly mean diurnal values corresponding to undisturbed (quiet) conditions.

The second series of tables gives the magnetic storminess, or we might say the average perturbing force for each hour interval. This series of tables also contains five columns. One headed M gives for each day the mean perturbing force, (Storminess). The columns headed PS, NS and AS give the diurnal sum of the hourly values of positive, negative, and absolute storminess respectively.

From the column AS we can see the "magnetic character" of the day and we use these values for defining "character numbers" C, which are given in the last column.

For each month we give one line (M) containing the monthly mean diurnal distribution of the storminess (Mean perturbing force), and two lines marked MPS and MNS giving the monthly mean diurnal distribution of the positive, and negative magnetic storminess respectively.

Methods for separating the influence of the perturbations from the rest of the field have been given by Birkeland.

His method, which depends on drawing "normal lines" on the magnetograms have not been strictly followed, but we adopted a somewhat modified method worked out by Krogness which enables us to determine the perturbing force by a calculation process, and which will be described in the present paper.

In connection with the tables we give curves representing the normal diurnal variation of the magnetic elements, vector diagrams of the Birkeland type for mean diurnal variation of the magnetic force, and a curve representing the variation of absolute storminess during the year.

Leiv Harang. *O. Krogness.* *Carl Størmer.*

Sem Sæland *L. Vegard.*

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General Remarks.

In No. 1 of the present publication series a general description of the arrangements for the magnetic measurements and the instrumental equipment at the Auroral Observatory at Tromsø has been given. The present publication contains the results of the magnetic registrations of the declination and the horizontal intensity for the year 1930. The results of the registerings of the vertical intensity are not given here, as the apparatuses for this component have not worked satisfactorily.

The variometers have, during the year, been under the supervision of cand. mag. E. Tønsberg. Absolute determinations were taken during the first six months by cand. real. Leiv Harang,—during the last six months by cand. mag. E. Tønsberg.

Scale Values.

We will use the following designations:

ω_d is the scale-value of the declinometer expressed in minutes per mm.
ε_d is the scale-value of the declinometer expressed in γ per mm.
ε_h is the scale-value of the horizontal variometer expressed in γ per mm.
r_d is the distance from the mirror of the declinometer to the drum, expressed in mm, —here also the "glass-effect" of the lenses and the mirror is included. Due regard has also been taken to the deformation of the paper by developing.
$\varkappa$ is the "torsion-factor" of the declinometer.

Declination.

Using these designations we have:

$$r_d = 1222{\cdot}5 \text{ mm.}$$

$$\varkappa = \frac{\alpha}{\alpha - \varphi} \quad ,$$

where α is the angle at which the quartz-fibre is turned, and φ is the corresponding angle at which the magnet will be deflected. The scale-value of the declinometer is expressed by the following equation:

$$\omega_d = \frac{1}{2 r_d} \cdot \frac{180 \cdot 60}{\pi} \cdot \varkappa = 1{\cdot}406 \cdot \varkappa.$$

Determinations of $\varkappa$ were made on the following days:

Date	$\varkappa$
20, VIII, 1929	1·0320
25, X, 1929	1·0321
22, VII, 1930	1·0322
10, XII, 1930	1·0321

Assuming the value $\varkappa = 1{\cdot}032$, we get:

$\omega_d = 1'{\cdot}450$ per mm — which is to be used through the whole year.

When preparing the tables of the hourly values of D, we used, instead of a scale-value expressed in minutes, a scale-value expressed in gammas. The latter is determined by the following equation:

$$\varepsilon_d = H \cdot \omega_d \cdot \frac{\pi}{180 \cdot 60} = 11\,600\ \gamma \cdot 1{\cdot}45 \cdot \frac{\pi}{180 \cdot 60} = 4{\cdot}89\ \gamma \text{ per mm},$$

when $H = 11\,600\ \gamma$ is the mean value of the horizontal intensity through the year.

Horizontal Intensity.

The D- and H-variometers are supplied with deflection coils for electric determination of the scale-values, — and further also with arrangement for magnetic deflection. Both methods have been used and the results are in accordance with each other.

The following determinations have been made:

Date	Scale-values
28, X, 1929	5·05 γ per mm.
30, XI, 1929	5·03 γ —„—
20, XII, 1929	5·06 γ —„—
22, VII, 1930	5·04 γ —„—
13, XI, 1930	5·02 γ —„—
27, XI, 1930	4·90 γ —„—

The scale-value adopted from 1. Jan. 1930 to 27. Nov. 1930 was 5·05 γ per mm. From 27. Nov. 1930 the scale-value was changed to 4·90 γ per mm.

The Absolute Measurements.

Absolute measurements are to be taken two or three times in the month. On account of the great number of disturbed days it is impossible to take the absolute measurements at definite time intervals.

Observed and adopted Base-line Values.

D (West).

Date	*D* observed	*D* adopted
1930.		
1, I	4° 18′·9	4° 18′·9
17, I	18·9	18·9
7, II	18·9	18·9
20, II	19·0	19·0
6, III	19·1	19·1
12, IV	21·3	21·4
22, IV	21·4	21·4
2, V	21·5	21·4
14, V	19·3	19·8
22, V	20·0	20·7
26, V	21·0	20·6
12, VI	13·7	13·7
19, VI	13·7	13·7
25, VI	13·3	13·3
4, VII	13·0	13·1
16, VII	16·6	16·7
24, VII	16·4	16·7
29, VII	16·8	16·7
23, VIII	13·2	13·7
29, VIII	14·3	13·7
12, IX	13·8	13·7
13, IX	13·7	13·7
14, X	16·1	16·1
16, X	16·1	16·1
21, X	16·1	16·1
6, XI	15·9	15·9
12, XI	15·8	15·9
21, XI	16·3	16·1
26, XI	16·0	16·1
11, XII	12,5	12·9
19, XII	13.2	12·9
22, XII	12·9	12·9

H

Date	*H* observed	*H* adopted
1930.		
1, I	11 482	11 479
17, I	486	479
2, II	470	479
4, III	481	479
21, III	486	479
4, IV	466	468
8, IV	468	468
22, IV	493	501
1, V	501	501
14, V	502	501
24, V	499	501
10, VI	503	501
23, VI	500	501
17, VII	444	448
24, VII	451	448
31, VII	448	448
28, VIII	418	421
9, X	422	421
16, X	422	421
6, XI	404	406
12, XI	406	406
21, XI	406	406
11, XII	524	525
20, XII	525	525

During the year 1930, the variometers several times proved to be out of function, as the pillar on which the variometers were placed proved to be slowly setting. On account of this, it happened several times that the suspension touched the copper walls in the variometer. The variometers were, therefore, during the year under close inspection every day, and each time the magnet touched the wall,—which at once could be detected by the deflection caused by a small magnet, the variometers were readjusted.

The setting of the pillar is difficult to explain. It may perhaps be caused by the movements of the ground, which here partly consists of stratified rocks,—or by the setting of the cemented pillar itself. If the latter be the cause, one should expect that the setting would disappear after a time. At any rate,—from 27. Nov. 1930 until now the variometers have worked more satisfactorily.

On account of the readjustments of the variometers, the base-lines have changed values several times. The above Table contains the observed and adopted baseline values of D and H. The base-line values of H is reduced to 0 °C.

The temperature coefficient of the H variometer was derived from the absolute measurements taken in the spring when the temperature in the house for registration was increasing. The temperature coefficient was found to be 7·7 γ for a variation 1° C in the temperature. This value ought to be regarded as a preliminary value, that may possibly need some correction.

Explanation of the Tables.

In the Preface, the general lines along which the Tables have been worked out are given by the Board of Directors of the Norwegian Institute of Cosmical Physics.

The direct mean hourly values — centering at each half hour, of the two elements D and H — are given in the ordinary way in the tables. Besides these we have, however, also given a somewhat detailed representation of the magnetic storms. A method for the practical calculation of such a quantity has been worked out by Krogness. This method has here been adopted and we must, therefore, make some remarks regarding this question.

As far as we know the first who has taken up an extensive study of this kind is Professor Kr. Birkeland. In this work "The Norwegian Aurora Polaris Expedition 1902—1903" he has first studied the individual storms separately, and further made a statistical study of all storms that occurred in the interval in question.

In order to be able to study the "magnetic storms" Birkeland introduced the idea of "normal line". The definition of this conception can not be given very accurately on account of the rather complicated phenomena that very often occur. On page 46 in his work he says: in a brief and well defined perturbation the normal line is "a line that connects the calm districts before and after, in such a manner that its further course is ruled by the curve on the nearest calm days". It will be seen from Birkeland's work that it is possible, in a natural way, to draw "normal lines" not only in cases of perturbations of short duration, but even during heavy magnetic storms of long duration.

According to Birkeland's view the magnetic variations of shorter duration may be regarded as due to a joint action of

1) a "quiet diurnal variation" ("the normal line") and
2) the "magnetic storms", — with the following 5 main types, the positive and the negative polar storms, the positive and negative equatorial storms and the cyclo-median storms.

In most cases the quiet character of the curve of the "quiet diurnal variation" and the disturbed character of the curves during the storms is sufficient to distinguish between the two categories — calm and storms. But in some cases there may be some doubt. It may especially be remarked that the negative equatorial storm, may show a fairly even and quiet course. This type of storm is as far as we can see of a similar kind as those variations, which have been called "after-disturbance", the "non cyclic change" and the "inter-diurnal variability". All these types of „disturbances" must also be supposed to have a quiet character.

If we decide to distinguish between "quiet" and "disturbed" conditions, we cannot expect to find that this can be done in a quite certain and unquestionable way. On the other hand, it is reasonable to expect that the doubtful cases will preferably be those where the deviations from the normal conditions are small, where the magnetic "storminess" is small. In fact, it will be seen from the work by Birkeland that it is practically possible to separate the "storms" from the "quiet conditions" (the „quiet diurnal variation" or the "normal line") in a satisfactory way.

It has been found desirable to separate these phenomena from each other, but no practical method has, as far as we know, been developed and adopted which gives a detailed representation of the storms appropriate for a year-book. One has had to be content with a characterization of the "magnetic activity" of the separate "days", based on either personal judgment of the "character" of the magnetic curves (0 — 2), or on the range of the curves.

It has been considered that it would involve too great difficulties to get a more detailed representation of this „storminess", „perturbing forces" or "activity".

If one is familiar with Birkeland's procedure, in placing the "normal line" on the magnetic curves, the difficulties in calculating the "storminess" are, however, in fact not great. This is also pointed out in an article in "Terrestrial Magnetism" by Boris Weinberg (vol. 31, 1926, pag. 123—127). Weinberg states that an extra expense of some 30 minutes pr. day will be sufficient for a calculation with great exactness of the "storminess", and recommends the introduction of a method such as this.

It is, however, also possible to introduce simplifications which will facilitate the calculation very considerably without diminishing the value of the numbers essentially.

The magnetic storminess is defined by Birkeland in the following way (1. c p. 451)

$$S^a = \frac{1}{T}\int_0^T |P|\,dt, \quad S^p = \frac{1}{T}\int_0^T P^p\,dt, \quad S^n = \frac{1}{T}\int_0^T P^n\,dt$$

P is the perturbing force, i. e. the difference between the real value of the magnetic component in question (H, D, V,) and the value of the "normal line" at the same time.

P^p is any positive value of P in the interval, P^n any negative value. S^a is called the "absolute storminess" S^p the "positive storminess" and S^n the "negative storminess" of the magnetic component in question. In any interval, say of 1 hour, there will thus be 2 distinct values for the "storminess", one for the positive and one for the negative,—see the tables in chapter III, part 2, p. 451—552 in Birkeland's work. We will now make the following simplification: We will suppose that the magnetic curve in question can be represented by a curve, which in each time-interval of 1 hour has a constant value equal to the mean value of the real curve. If on this simplified curve, we apply the above definition of the storminess by Birkeland, we see that we arrive at the following conclusions: Instead of getting *two* numbers—without sign—, S^p and S^n, for the storminess in each 1-hour-interval we get *one* number, with sign + or —. We will call this quantity only "storminess" and may mark it with the letter "S". If we wish to distinguish between the different components, we may write S_h, S_d, S_v for the horizontal intensity, the declination and the vertical intensity. For all components the unit gamma ought to be used, "Declination" here means only the *E-W*-component of the magnetic force. The positive storminess for the simplified curve will be any positive value of S,—we will designate this by PS,—the negative storminess will be any negative value of S, we will designate this by NS, and for analogues we put for the "absolute storminess" the designation AS. Hence we have $AS = PS + NS$.

As will be seen this simplified "storminess" is the same as the hourly mean of the "perturbing force", and for the calculation of this we thus need to know:

1) the mean value of the magnetic component in the hour-interval in question, and
2) the mean value for the same interval of time of Birkeland's the "normal line".

The first quantity is calculated directly from the curves and is tabulated in the table of the "direct values" in the ordinary form.

To determine the other quantity, we may make the following remarks.

The value of points on the "normal line", *(NL)*, may be put equal to the sum of three quantities,

1) a constant value
2) the value of the "quiet diurnal variation" (*QDV*)
3) the value of a "remnant field" *(RF)*.

The value of "the quiet diurnal variation" may be found in the following way:

From the material we select a series of the most quiet days. By direct consideration one can point out the intervals on the curves in question that may be characterised as "quiet". In other parts of the curve there may be perturbations of some kind. If these perturbations are well defined and of short duration, there will be no difficulty in eliminating these perturbations graphically from the curves. If the perturbations that occur on the chosen curve are not well defined, the elimination of the storms involves more difficulties, but can, after some experience, be carried out with satisfactory accuracy. In the polar regions it is ordinarily not exact enough to take direct means of the values on several of "the most quiet days", as the deviations during a moderate, or even a small magnetic storm very often are considerably greater than the deviations belonging to the "quiet diurnal variation". During some intervals the condition may be so disturbed, that it might seem impossible to find sufficient quiet days at all for a satisfactory determination of the "quiet diurnal variation". By studying this matter we will, however, find that the form of this variation, in the main features, is so typical that even small hints may be enough for a person with some practical experience in the matter to be able to draw the "normal line" with sufficient accuracy. In such cases the storms will be so great that the possible errors in the "quiet diurnal variation" will be of less importance for the determination of the storminess.

From the values found in this way, or, by taking suitable means for several "quiet days", it is ordinarily possible to find satisfactory values from the "quiet diurnal variation".

We suppose that we have realised in finding a series of standard "quiet diurnal variations" corresponding to a series of days. By linear interpolation we are then able to find an approximate value of this quantity for each hour-interval. It is practical to divide the time in groups, and in each group use the same diurnal variation. We suppose that these values are smoothed for "non-cyclic change", whereby the value at 0h will be equal to the value at 24h.

If we now wish to find the storminess, this can be done graphically by drawing the found "normal line" directly on the magnetograms and read off the registered the difference between the magnetic curve registered and the "normal line-"curve. This latter curve must then be placed in such a manner that this curve will coincide as well as possible with the "quiet parts of the registered curve", where the storminess ought to be zero.

The determination of the storminess can, however, also be done by calculation, and for tabular work such a method may, in most cases be preferable. We will see how this can be practically arranged.

We may for a moment suppose that we are considering the Horizontal Intensity. The direct value found in a given hour-interval we may call H. After the definitions given above we have

$$NL = H_0 + QDV + RF \tag{1}$$
$$H = NL + S, \tag{2}$$

H_0 being the named "constant value".

From this we get

$$S = H - NL = H - H_0 - QDV - RF = (H - QDV) - (H_0 + RF) \tag{3}$$

For the calculation work it is convenient to use the following tabular form:

Hour	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23						
$A = H$	$A^\circ A^\circ A^\circ A^\circ$	$A\ A\ A\ A$	$A^\circ A^\circ A^\circ$	$A\ A\ A\ A$	$A^\circ A^\circ A^\circ$	$A\ A\ A\ A\ A$	A°
$B = QDV$	$B\ B\ B\ B$	$B\ B\ B\ B$	$B\ B\ B$	$B\ B\ B\ B$	$B\ B\ B$	$B\ B\ B\ B\ B$	B
$C = A^\circ - B$ / c Interpolated C-Values } $= H_0 + RF$[1]	$C\ C\ C\ C$	$c\ c\ c\ c$	$C\ C\ C$	$c\ c\ c\ c$	$C\ C\ C$	$c\ c\ c\ c\ c$	C
$D = C + B$		$D\ D\ D\ D$		$D\ D\ D\ D$		$D\ D\ D\ D\ D$	
$E = A - D = S$ (Storminess)...		$E\ E\ E\ E$		$E\ E\ E\ E$			
	Quiet Interval	Disturbed Interval	Quiet Interval	Disturbed Interval	Quiet Interval	Disturbed Interval	*Q.I.*

[1]) Quiet Values of H are marked with A°, — Storminess, S, is here $= 0$. If S is supposed to be $= 0$, C will be $= H - QDV = H_0 + RF$, $D = H$ and $E = 0$.

From this table it will be clear how the calculation can be done.

In the first line the direct values, H, taken out from the curves, are put equal to A. The values, that correspond to quiet parts of the curve are marked by a special mark $^\circ$. Those columns of the form that correspond to the "quiet part" are marked by drawing extra vertical lines on both sides of "the quiet intervals".

In the second line are placed the values of the quiet diurnal variation, $B = QDV$, found by a special study of the "quiet days".

In the third line are placed:

1) in the columns of the quiet interval,—where the storminess, S, is zero—: the difference C between A° and B:

$$C = A^\circ - B = H - QDV.$$

2) in the "disturbed columns": values c which are found by linear interpolation between the values C in the "quiet intervals" immediately before and after.

In the quiet interval the storminess S should be $= 0$. If in the above equation (3) we put $S = 0$ we see that

$$C = H - QDV = H_0 + RF.$$

H_0 is a constant, that, for instance, can be put equal to the mean quiet value of the respective element for the time-interval, — day, month or year in question. RF is the value of the "Remnant Field", i. e. the variation that will exist in the quiet values when the calculated approximative quiet diurnal variation is eliminated. If we put H_0 at the said mean quiet value, this remnant field, RF, may consist of the effects emerging from the following causes:

1) The secular variation.
2) Irregularities in the quiet diurnal variation which have not come into reckoning by the linear interpolation method used.
3) Variation of other kind of earth-magnetic or cosmic-electric origin, — for instance by a negative equatorial storm of quiet character, — after disturbance, non cyclic change, interdiurnal variability — and perhaps also other phenomena.
4) Temperature effects, in the magnets, and in the apparatuses that may not have been eliminated in the reckoning, and other "faults" of different kinds.

If all these effects are negligible, the values C, in the third line should be nearly a constant quantity for several days. In fact, we find that the variations of the values of C are in general only comparatively small. Distinct and characteristic smaller variations in these values manifest themselves, however, comparatively often. In most cases these variations seem to have a periodic character with a period of a day. For this reason it might seem probable that they indicate changes in the quiet diurnal variation that have disappeared by the named smoothing process by which the QDV-numbers have been arrived at. The "irregularities" here referred to will thus have the character of a correction that ought to have been put on the approximate values $B = QDV$ in the line 2 in the reckoning table.

If we wish to make a more detailed study of the quiet diurnal variation these irregularities must be taken into account. For the calculating of the storminess these corrections will be of no great importance. In the "quiet intervals" they will be automatically eliminated as the direct quiet values have here been used, as "normal line"-values, and in the "disturbed interval" the smoothed QDV-values are only used to get a satisfactory interpolation between the parts of the curve that may be characterized as "quiet".

The C-values in the third line and in the "quiet columns" will in this way indicate the values in the "quiet interval" that we get when we eliminate the "normal quiet diurnal variation" from the quiet "normal line". The curve, that we will in this way get, is almost a straight line, it may be called "the normal zero-line".

According to Birkeland's view this "normal zero-line" must be a straight line, also in the disturbed interval, and this line will connect the same "zero-line" in the quiet interval before and after the perturbed interval in question. In other words it is possible to fix the position of the "normal zero-line" simply by drawing a straight line which connects the same line in the undisturbed interval before and after. The values of the ordinate of this line may thus be found by linear interpolation of the C-values before and after. These interpolated values are introduced in the third line of the table in the disturbed interval and are marked by c.

From the values, c, of the "normal zero-line", determined in this way, we may now get the corresponding value of the "normal line" by adding the approximate "quiet diurnal variation", i. e. the B-values to the c-values. We put:

$$D = B + c$$

or D is the value of the normal line in the perturbed interval.

From this we may now proceed to the storminess by subtracting the normal line (the D-values) from the horizontal intensity (the A-values), i. e. we put:

$$E = A - D = S$$

or E will be the storminess in the disturbed interval.

For H we may thus write:

$$H = H_0 + QDV + S + RF$$

The calculating of the storminess for the other elements can, of course, be worked out in quite an analogous manner. For D we must only take care, that we use the same unit in all lines, minutes-, or preferably γ, as the storminess ought to be expressed in γ.

The two main variations: the quiet diurnal variation and the storms, QDV and S, will in this way be given separately, in a clear and typical manner. The calculation is performed in an easy manner without introducing great arbitrariness. The only thing on which the separation is based which involves some personal judgment and, therefore, some uncertainty, is the fixation of the quiet parts of the curves. Here some personal errors may enter but errors of this nature will often be detected from the table for RF, and it may also be possible to make some correction by the aid of this table. It is here especially necessary to take care that the effect of the positive equatorial storms should be eliminated.

In the tables the following quantities are tabulated: *The first table* contains the hourly mean value of the magnetic elements D and H, expressed in minutes and gammas respectively. The time-interval centers at half hours, Greenwich mean time. In these tables M designates the ordinary mean values, R designates the range, *i. e.* the difference between the maximum and minimum of the instantaneous values measured directly on the magnetograms. QM designates the "quiet mean", *i. e.* the values corresponding to the mean position of the "normal line" defined by Birkeland. This value, QM, is here determined by subtracting the mean of the storminess, given in the next table, from the mean of the "direct values". For the declination one must, of course, transfer the storminess value from gammas to minutes before subtracting (1 γ corresponds to 0·297 minutes approximately).

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

The second table contains the storminess in the magnetic elements, — all quantities are here expressed in gamma. In all cases the "simplified" definition of storminess given above is used. In D the storminess is reckoned positive towards the magnetic West, in H positive towards the magnetic North. M designates the mean of the hourly values. For practical reasons we have tabulated the "diurnal sum" of the positive and negative storminess instead of the "diurnal mean" of these quantities.

These "diurnal sums" will thus be 24 times greater than the corresponding "diurnal means".

MPS and MNS designate the hourly mean values during one month of the positive and negative storminess respectively.

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

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

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

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

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

In addition to the principal tables mentioned, we have also given a table of the values of the diurnal variation that have been used for the calculation of the storminess. We only give these values for the last half year from which the registrations have been most satisfactory.

Explanation to the Figures.

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

Figure 2, gives a graphical representation in vector-diagrams of the mean diurnal variation of the storminess in the horizontal plane, for the different months.

Figure 3, represents the variation of the absolute storminess during the year.

TABLES

Tromsö. **Declination. D = 4° W + Tabular Quantities expressed in Minutes.** *Gr. M. T.*

HOURLY MEAN VALUES

JANUARY 1930

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1	-4	-2	9	9	16	15	17	16	15	14	20	21	21														
2																											
3D													21	20	22	18	27	24	33	24	20	11	3	1		78	
4D	6	8	10	11	15	19	11	18	7	10	15	17	19	21	22	10	10	33	27	-3	7	-18	-7	2	11.2	155	13.0
5D	-28	-61	-16	-6	14	-1	2	12	16	12	14	12	14	11	12	11	28	27	16	-18	10	11	2	1	4.0	153	12.1
6D	7	2	-4	-9	13	14	18	20	16	18					17	22	42	-1	21	6	-10	-21	13	16	11.0	200	12.2
7D	-4	-11	-2	-3	3	16	17	21	16	16	16	16	16	16	6	6	28	-23	-33	19	21	-23	-18	-25	3.8	151	12.4
8	-25	-12	0	13	14	19	23	26	23	18	17			17	14	-1	3	7	9	11	11	11	14	11	10.1	63	12.5
9	3	4	15	12	12	13	13	14	15	16	16	16	16	16	15	14	14	14	14	12	7	11	11	12	12.7	25	13.8
10	12	10	10	10	12	14	14	14	13	15	14	13	14	14	15	4	3	10	10	4	10	12	12	11	11.3	33	13.1
11Q	11	12	13	14	14	15	12	12	11	12	13	15	11	13	15	15	15	14	14	13	12	12	12	12	12.9	12	13.2
12Q	13	15	14	12	12	12	12	12	12	15	14	18	16	16	18	19	17	15	13	13	13	14	13	12	14.2	10	13.6
13	11	11	10	10	13	20	18	12	12	16	16	16	15	17	18	6	19	22	22	19	17	15	12	14	15.0	25	13.1
14Q	15	7	7	10	11	12	16	14	10	12			17	16	15	15	16	16	16	17	16	13	14	12	13.5	35	13.5
15	13	12	12	12	12	12	12	12	12	13	16	16	16	16	16	17	17	20	11	18	19	9	22	-6	13.7	57	13.9
16	2	8	10	12	11	12	13	12	12	15	16	16	16	15	15	18	20	17	15	15	7	13	14	16	13.3	15	13.6
17	12	12	10	12	11	11	11	12	12	14	17	20	19	20	23	27	39	44	56	23	21	-1	9	15	18.8	96	14.1
18	9	2	7	18	13	11	12	12	16	18		18	17	18	19	18	16	14	18	21	24	13	11	-3	14.1	70	13.8
19	-19	-17	-13	-4	-1	9	10	18	16	14	18				17	26	28	18	16	7	12	14	11	7	8.9	66	12.5
20	11	-2	6	9	4	12	11	12	14	15	15	16	19	18	19	30	31	26	31	29	9	-9	7	7	14.2	142	13.8
21	7	-48	-16	-4	-3	7	11	15	15	15	16	17	19	19	9	20	24	23	19	15	13	9	26	9	9.9	82	13.2
22	4	4	2	2	6	11	15	14	15	15	13	16	19	16	16	14	6	19	6	11	16	19	6	11	11.5	74	14.2
23	6	11	11	12	10	13	15	16	16	16	19	18	17	20	16	13	20	14	7	13	21	1	7	8	13.3	35	14.5
24	18	3	7	12	11	12	12	14	13	16	17	16	15	15	16	20	22	20	6	24	19	17	16	6	14.5	47	13.9
25	-2	3	6	6	7	9	13	16	19	18	22	16	18	17	17	19	21	18	16	15	13	13	12	12	13.5	27	14.4
26Q	10	9	10	11	13	12	12	12	13	15	16	17		16	15	15	15	15	15	14	13	13	13	13	13.3	15	13.6
27Q	13	13	13	13	12	12	12	12	12	12	13	16	16	15	15	16	16	16	15	15	16	14	11	12	13.8	26	13.8
28	12	11	12	12	13	13	13	13	15	16	17	16	17	18	18	16	18	18	27	17	22	10	11	11	14.2	31	13.3
29	15	12	12	16	16	14	13	18	11	17	18	16	19	20	17	15	14	15	13	9	6	12	11	12	12.5	24	12.2
30	12	12	13	12	12	11	15	22	15	11	17	17	22	22	19	25	15	12	12	10	10	-14	1	-3	11.6	83	14.6
31	7	9	12	12	12	13	14	12	12	12	12	14	15	15	12	12	15	7	15	15	4	7	10	10	11.6	100	13.4
M	5.1	1.3	6.2	8.5	10.6	12.4	13.3	14.9	13.9	14.7	16.0	16.4	17.1	17.0	16.1	16.0	19.3	16.3	15.9	13.4	13.1	6.5	9.6	7.4	12.4	66	13.5
QM	11.3	10.8	11.5	11.8	12.1	12.4	13.0	13.1	13.6	14.7	15.4	16.1	16.5	16.4	15.5	15.7	15.7	14.8	14.4	13.3	12.2	11.6	11.7	11.6			

FEBRUARY

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1	10	1	-1	-9	7	10	12	16	16	17	17	19	7	11	1	17	12	3	10	12	12	11	12	-3	9.5	57	13.1
2	-10	-3	-1	12	8	13	13	13	15	14	15	19	9	13	13	13	15	13	12	11	16	8	4	2	9.3	124	12.6
3	-7	1	10	13	13	14	15	18	16	16	16	17	17	3	10	16	18	-10	17	8	11	8	9	8	10.7	75	13.2
4	12	14	11	10	10	10	11	12	16	16	16	16	16	16	11	14	14	13	7	12	17	-4	4	11	11.8	99	13.0
5	12	13	13	13	11	12	13	13	12	13	16	20		17	15	16	14	12	13	12	11	11	12	11	13.3	20	12.7
6Q	12	12	12	11	12	11	11	10	11	13	14	15	15	14	13	12	10	10	9	10	11	12	12	13	13.0	15	13.6
7	13	13	12	12	12	12	11	12	12	13	16	16	15	14	13	13	12	15	16	20	2	10	12	12	12.8	60	13.1
8Q	12	12	12	11	11	11	11	11	12	14	12	14	20	21	25	24	16	26	16	11	10	4	4	5	13.5	51	12.6
9Q	6	6	10	10	11	12	12	12	13	13	15	16	16	15	15	14	15	14	13	13	13	12	12	4	11.8	15	12.7
10Q	10	11	12	11	12	12	10	11	12	12	16	18	22	19	25	19	14	15	13	13	11	7	10	12	14.6	33	13.0
11	9	8	4	6	7	9	10	11	12	13	14	15	15	14	14	15	15	15	14	13		12	12		11.1	24	12.0
12D	-3	-10	1	7	10	8	21	10	10	12	19	21	24	36	27	34	34	21	17	19	17	-7	-40	-30	10.8	155	12.1
13D	-10	-4	-38	-14	3	7	11	14	7	11	20	17	14	16	33	22	24	39	11	-7	8	11	7	26	9.5	210	13.7
14D	-29	-13	-31	-7	8	12	15	15	14	12	14	23	21	27	27	1	1	16	20	6	-16	4	9	4	6.4	120	13.9
15D	-10	-25	-10	2	-1	7	16	16	20	23	19	16	26	19	29	16	14	23	3	11	33	23	32	28	13.6	93	12.4
16Q	-28	-28	-19	-28	-16	2	6	19	16	16	14	17	19	27	12	16	22	23	17	17	23	20	11	5	7.6	154	12.3
17	-25	-10	-14	-13	-13	-5	8	14	20	14	16	15	11	16	27	-11	-3	20	11	20	5	5	16	9	5.5	80	12.1
18	10	11	7	3	-1	2	8	8	16	14	17	15	23	25	27	16	21	37	3	18	16	11	17	16	14.2	80	12.4
19	2	7	-5	-5	2	-1	12	8	9	10	10	16	12	14	17	25	10	33	19	8	11	14	7	9	10.2	84	12.3
20	3	4	2	3	7	9	10	11	10	13	16	17	13	14	14	13	20	17	37	28	11	-1	12	-5	11.6	134	11.9
21	2	-1	-4	10	10	9	10	13	13	12	13	14	14	17	17	18	18	19	17	16	19	21	-10	-3	11.0	120	11.9
22Q	-1	4	5	7	8	8	10	11	12	14	15	16	16	19	19	16	15	16	16	20	11	5	5	-10	10.7	57	12.4
23	-13	-22	3	7	9	10	10	12	13	18	16	18	20	21	25	21	10	18	19	13	16	18	13	9	11.8	66	12.4
24	8	4	9	10	10	12	17	17	16	13	16	15	17	15	17	14	14	13	14	-6	3	12	13	12	11.9	42	12.2
25	9	10	7	7	8	12	11	14	21	20	16	23	19	25	17	19	11	23	-1	7	5	-64	-25	-22	7.2	170	12.2
26	-19	19	4	8	12	11	14	13	11	14	14	14	14	14	13	15	7	17	15	11	12	9	8	1	10.4	86	12.1
27	4	6	3	5	9	10	11	12	13	16	19	18	16	16	14	12	9	12	15	5	9	11	-7	-10	9.5	79	11.9
28	-1	5	1			8	14	19	14	21	17	16	19	22	14	16	14	15	11	18	17	10	-4	4	11.9	78	12.5
M	-0.8	1.6	0.5	3.4	6.6	8.8	11.9	13.0	13.6	14.5	15.6	17.0	16.7	18.1	18.0	15.6	14.2	17.8	13.7	12.1	11.2	6.8	6.0	3.9	10.9	84	12.5
QM	10.8	11.1	11.2	10.5	10.8	10.9	11.3	11.5	12.1	13.3	14.1	15.2	14.6	14.2	14.0	14.1	14.3	14.5	14.0	12.7	11.9	11.9	11.0	10.9			

MARCH

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1D	1	5	-10	1	19	9	11	17	16	16	10	26	13	17	23	16	19	0	28	27	-31	7	-25	1	9.0	130	12.0
2D	-4	-3	1	6	8	11	11	11	14	12	13	18	16	19	19	11	10	5	8	13	21	5	-9	-5	8.8	170	12.1
3	-4	-6	7	9	12	13	14	15	8	8	19	17	16	16	20	10	14	15	10	10	13	-13	4	-5	9.2	80	11.9
4	-4	-16	10	7									18	10	12	6	10	12	10	3	10	10	11	11		26	
5Q	13	13	13	13	13	12	10	8	8	10	12	13	12	12	10	8	10	10	10	7	10	10	10	10	10.7	12	11.6
6	11	11	11	11	11	10	9	9	13	13	15	18	17	16	15	13	13	14	11	11	13	13	13	13	12.7	12	12.4
7Q	13	12	12	12	11	10	10	9				16	13	16	14	13	12	12	13	13	13	14	14	13	12.6	12	12.6
8Q	13	13	12	11	11	11	12	11	11	14	16			14	13	11	12	14	16	13	13	12	13	13	12.7	11	12.7
9Q	12	12											14	13	13	12	13	14	14	14	14	13	13	13		10	
10Q	12	11	11	10	11	11	11	10	11	13	15	16	17	16	14	13	14	13	14	16	19	17	6	6	12.8	26	12.8
M	6.2	5.1	7.5	8.9	12.0	10.9	11.0	11.3	11.7	12.3	14.2	17.2	15.1	14.9	15.3	11.3	12.7	10.9	13.4	12.7	9.5	8.8	5.0	7.0	(11.1)	(49)	(12.3)
QM	12.2	11.7	11.7	11.3	11.4	10.9	10.4	9.5	10.5	12.0	13.3	14.2	15.4	15.1	14.7	12.8	12.4	12.7	12.8	12.1	12.5	11.8	12.2	11.8			

Tromsö. **Declination. Storminess (+ W). Unit Gamma.** *Gr. M. T.*

HOURLY MEAN VALUES.

JANUARY 1930

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	DIURNAL SUM PS	NS	AS
1	-53	-46	-14	-10	10	7	13	7	2	-2	14	16	15															
2																												
3D													15	13	20	11	39	31	60	36	23	-3	25	-33				
4D	-18	-10	-6	-3	8	19	-7	14	-22	-12	0	6	10	15	20	-15	-13	57	41	-45	-14	-88	-59	-30	-6	190	342	532
5D	-120	-219	-85	-55	5	-42	-32	-4	5	-9	-4	-9	-5	-10	-8	-11	43	37	8	12	-7	-3	-27	32	-21	142	650	792
6D	-15	-31	-48	-65	2	3	16	20	5	9	9	8	8	7	7	27	85	-45	22	-20	-11	-98	5	13	-4	246	333	579
7D	-50	-69	-43	-45	-28	8	13	21	5	3	2	0	2	2	-28	-27	43	-110	-138	20	26	-103	-87	-109	-29	145	834	979
8	-112	-71	-38	2	5	18	31	38	23	9	6	6	5	5	-3	-46	-33	-20	-13	-5	-4	-3	8	-2	-8	155	350	505
9	-28	-25	8	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-15	-4	-3	1	-3	9	77	86
10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-32	-44	-14	-12	-27	-8	1	0	0	-6	2	137	139
11Q	0	0	0	0	0	0	0	0	0	0	0	0	-12	-6	0	0	0	0	0	0	0	0	0	0	-1	0	18	18
12Q	6	8	6	0	0	0	1	1	0	5	1	9	0	0	0	11	7	2	0	0	0	0	0	0	2	57	0	57
13	0	-3	-8	-7	4	24	-29	0	-1	8	3	2	0	0	0	-28	12	24	24	17	13	4	-1	5	3	140	77	217
14Q	11	-15	-16	-8	0	0	12	6	-8	-7	-5	-2	0	0	0	0	1	6	8	12	8	-1	4	-2	0	67	64	131
15	5	0	0	0	0	0	0	-2	-4	-5	0	0	0	0	0	3	6	17	-9	13	18	-12	32	-55	0	94	87	181
16	-49	-12	-7	-1	-3	0	6	1	-1	0	0	0	0	0	0	6	13	9	4	2	-17	0	4	12	-1	57	90	147
17	0	0	-5	1	0	0	0	0	0	-1	5	11	6	9	19	31	71	89	126	33	23	-42	-11	8	16	432	59	491
18	-11	-30	-14	19	5	0	0	0	10	11	8	6	-1	0	0	0	-1	0	13	21	32	0	-4	-45	1	126	106	231
19	-95	-86	-74	-49	-39	-7	-7	18	6	-1	8	4	0	-3	-7	24	35	11	5	-19	-3	3	-6	-15	-12	114	413	527
20	-5	-43	-19	-9	-25	0	-4	-2	0	1	-3	-4	0	-2	4	36	45	35	49	46	-13	-17	-16	-15	2	216	177	393
21	-15	-180	-79	-49	-45	-14	-7	4	2	2	-1	0	0	0	26	6	24	24	13	2	-2	-13	42	-10	-11	145	415	560
22	-25	-25	-31	-31	-20	-5	0	0	0	0	-13	-8	1	0	0	-11	-31	11	-28	-8	8	18	-20	-5	-9	38	261	299
23	-18	-5	-4	-1	-6	0	0	0	0	0	6	0	0	12	-1	-7	11	-5	-24	-4	23	-37	-15	-12	-4	52	139	191
24	18	-28	-14	0	3	0	0	0	0	0	4	0	0	0	0	9	18	13	-30	29	18	13	10	-18	2	132	93	225
25	-44	-28	-19	-18	-16	-8	3	8	17	7	14	0	0	0	0	5	13	6	0	0	0	0	0	0	-3	70	133	203
26Q	-8	-9	-7	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	29	29
27Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	5	-3	0	0	13	3	16
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8	36	6	28	-8	0	0	3	84	8	92
29	9	0	1	10	9	7	2	17	-8	8	8	-1	8	8	1	0	-5	-2	-6	-17	-20	0	0	0	1	88	59	147
30	0	-2	4	0	-3	-2	8	27	3	-6	5	2	18	19	9	29	-1	-8	-9	-11	-10	-90	-33	-44	-3	124	219	343
31	-14	-10	1	0	-1	3	5	-1	-5	-7	-10	-8	0	0	-9	-9	1	-22	2	4	-27	-15	-6	-7	-6	16	151	167
M	-21	-32	-18	-11	-5	0	1	6	1	0	2	1	2	2	2	1	12	5	5	2	3	-17	-7	-14	-4	105	191	296
MPS	2	0	1	1	2	3	4	6	3	2	3	2	3	3	4	7	16	13	14	8	8	1	4	1				
MNS	23	32	19	12	7	3	3	0	2	2	1	1	1	1	2	6	4	8	9	6	5	18	11	15				

FEBRUARY

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS
1	-6	-40	-45	-73	-21	-9	-2	10	3	10	6	7	-24	8	-40	12	-6	-33	-9	1	0	-1	4	-45	-12	62	354	416
2	-74	-50	-46	0	-16	0	0	0	0	0	0	0	-26	-5	0	0	0	0	-2	-3	13	-9	-26	-29	-11	13	286	299
3	-64	-38	-10	1	2	4	5	14	5	-17	8	2	2	-39	-15	6	14	-86	13	-13	-2	-11	-6	-9	-10	76	311	387
4	0	6	-6	-8	-8	-7	-8	-3	6	9	4	-3	0	0	-12	0	0	0	-21	1	18	-51	-23	-1	-4	44	151	195
5	1	3	7	7	3	5	8	7	6	3	-1	11	12	9	0	8	0	-3	0	0	-2	0	1	0	2	62	10	72
6Q	0	0	0	0	0	0	0	-6	0	0	0	0	0	0	-3	-5	-11	-11	-12	-6	0	0	1	5	-2	6	54	60
7	4	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	-4	-7	4	8	26	-33	-8	0	0	-1	42	54	96
8Q	0	0	0	0	0	0	0	0	0	2	-6	0	15	21	36	32	5	40	11	-5	-9	-28	-24	-24	3	162	96	258
9Q	-21	-19	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-27	-3	0	72	72
10Q	-3	0	0	0	0	0	0	0	0	0	0	8	22	13	34	14	0	0	-1	-1	-6	-18	-6	0	2	91	35	126
11	-7	-9	-24	-19	-14	-8	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	-3	6	83	89
12D	-46	-70	-37	-12	-5	-10	36	-5	-5	-4	26	21	30	74	44	67	65	21	11	21	14	-23	-172	-137	-4	430	526	956
13D	-70	-59	-165	-85	-25	-15	1	10	-13	-6	21	7	-2	5	64	27	30	81	-89	-67	-15	-3	-14	48	-14	294	628	922
14D	-135	-79	-142	-60	-19	-6	-16	12	10	-1	2	27	23	45	45	-46	-46	5	21	-21	-95	-25	-7	-27	-22	189	725	914
15D	-70	-119	-72	-30	-39	-13	17	15	35	34	16	3	39	15	50	4	0	30	-34	-6	71	37	68	53	4	487	383	870
16D	-130	-129	-101	-129	-88	-27	-16	25	15	9	1	8	16	45	-5	4	28	30	11	14	36	27	-2	-22	-16	269	649	918
17	-120	-69	-86	-79	-77	-51	-8	10	32	4	6	1	-10	8	40	-91	-65	20	-9	24	-22	-23	13	-9	-23	167	719	886
18	-5	1	-15	-23	-35	-26	-8	-10	15	4	11	1	31	36	40	4	22	75	-34	16	14	-3	18	14	6	302	160	462
19	-29	-10	-54	-54	-23	-36	7	-10	-7	-11	-14	7	-3	1	11	36	-15	65	16	-16	-4	-7	-14	-9	-7	143	316	459
20	-24	-20	-28	-24	-4	-2	0	0	0	0	9	9	0	0	0	-3	20	10	76	49	-6	-43	3	-53	-1	176	207	383
21	-29	-38	-47	2	4	-2	-1	8	6	0	0	0	0	10	9	12	13	18	11	12	21	32	-72	-46	-3	158	235	393
22Q	-38	-20	-16	-6	0	0	0	0	0	0	0	0	0	16	17	7	0	-15	8	23	-6	-23	-22	-71	-6	71	227	298
23	-77	-107	-20	-8	0	0	0	0	0	13	6	9	17	23	38	21	-15	12	19	2	14	19	4	-6	-2	197	233	430
24	-6	-17	0	0	0	5	24	19	12	1	7	0	7	0	10	1	-1	-4	0	-61	-31	0	6	2	-1	94	120	214
25	-4	-1	-10	-13	-8	8	3	9	27	23	8	29	17	34	11	17	-9	32	-47	-20	-24	-252	-122	-111	-17	218	621	839
26	-96	29	-18	-8	4	3	13	7	-5	3	-1	0	0	3	0	7	-26	15	8	-7	0	-9	-12	-36	-5	92	218	310
27	-18	-12	-22	-19	-5	1	3	2	2	10	16	11	9	7	3	-3	-12	-3	9	-24	-8	-2	-62	-71	-8	72	261	333
28	-36	-16	-29	-21	-14	-7	13	25	5	28	11	7	16	30	3	9	4	7	-2	22	17	-4	-52	-51	-2	197	232	429
M	-39	-32	-36	-24	-14	-7	2	5	5	4	5	6	7	13	13	5	0	11	-1	-2	-2	-15	-17	-24	-6	147	284	432
MPS	0	1	0	0	0	1	5	6	7	5	6	6	9	14	16	10	7	17	8	8	10	4	5	4				
MNS	39	33	36	24	14	8	3	1	2	1	1	0	2	1	3	5	7	6	9	9	9	19	23	28				

MARCH

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS
1D	-38	-23	-73	-33	26	-5	4	28	24	14	-12	41	-9	6	28	8	19	-42	50	53	-144	-13	-120	-34	-6	301	546	847
2D	-54	-48	-38	-27	-12	0	4	8	18	1	1	14	-2	11	13	-7	-11	-24	-15	4	36	-18	-68	-53	-11	110	375	485
3	-54	-61	-15	-9	0	7	14	21	-4	-11	21	19	2	4	7	-12	4	9	-6	-5	-1	-78	-25	-52	-9	106	333	439
4	-54	-91	-9	-14									0	-19	-10	-24	-3	0	-5	-28	0	0	0	0	-16	0	257	257
5Q	0	0	0	0	0	0	0	0	0	0	0	0	0	-13	-16	-16	0	0	-4	-12	-7	0	0	0	-3	0	68	68
6	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	1	14	1	14
7Q	0	0	0	0	0	0	0	0	0	0	0	8	-11	0	0	0	0	0	0	0	0	0	0	0	0	8	11	19
8Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	18	14	-23	-20	0	42	43	85
M	-20	-22	-14	-8	2	0	2	6	4	1	3	10	-2	-1	2	-5	1	-6	2	2	-10	-10	-24	-16	(-4)	(64)	(157)	(221)
MPS	0	0	0	0	3	1	2	6	4	2	3	10	0	2	5	1	2	1	5	6	5	1	0	0				
MNS	20	22	14	8	1	1	0	0	0	1	0	0	2	3	3	6	1	7	3	5	15	11	24	16				

Tromsö. **Declination. D = 4° W + Tabular Quantities expressed in Minutes.** *Gr. M. T.*

HOURLY MEAN VALUES

APRIL 1930

DAY	0–1	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–10	10–11	11–12	12–13	13–14	14–15	15–16	16–17	17–18	18–19	19–20	20–21	21–22	22–23	23–24	M	R	QM
1																											
2																											
3Q																											
4Q																											
5Q																											
6																											
7D														28	24	27	35	46	9	22	16	1	-30	-13			
8D	-45	-28	-90	-36	-12	-11	0	3	0	3	12	-20	10	16	17	19	16	7	28	30	21	15	0	-3	-2.0	200	11.9
9	-39	-46	-15			4	4	4	6				22	25	23	34	12	30	21	12	17	21	28	-6	8.3		12.2
10D	-17	-21	-24	-14	4	-6	6	16	15	8	11	7															
11																											
12															21	19	18	18	16	15	22	7	-15	-18			
13	-3	-17	-32	-11	0	0	7	10	12	13	11	19	25	21	19	22	24	16	15	21	6	14	7	-6	8.0	84	12.4
14	-14	-27	-33	-5	2	1	6	9	10	10	17	19		19	17	17	15	18	9	9	15	1	10	-15	4.8	126	11.9
15	-26	-17	-23	-27	-13	11	13	9	9	13	15	22	18	23	19	20	28	21	22	27	25	-1	11	-17	7.6	137	12.6
16	-48	-33	-21	-38	3	8	9	5	9	12	17	24	24	16	24	17	16	15	14	13	13	15	7	-26	2.6	120	11.2
17	-21	-12	-39	-14	-5	3	6	8	8	12	18	21	24	21	18	18	18	18	16	12	21	1	8	9	7.0	126	12.6
18	0	1	5	3	5	6	5	9	11	16	18	20	22	22	16	28	25	25	19	19	20	10	-12	-5	12.0	74	12.6
19	-7	4	1	-2	5	7	15	15	13	13	20	23	16	15	18	20	19	26	43	16	16	19	6	6	13.6	108	12.6
20D	7	4	2	4	4	3	3	6	24	16	9	1	1	21	25	21	21	48	30	7	16	16	18	0	13.0	105	11.8
21	-18	-18	-8	-10	7	8	9	9	9	9	16	22	23	21	15	16	25	19	19	21	21	-6	16	0	9.4	170	12.7
22D	-27	-23	-24	-5	7	7	7	10	7	5	10	17	25	26	24	27	52	12	25	24	3	0	4	-18	8.1	180	11.7
23	-45	-20	-7	3	9	7	10	15	13	16	17	15	15	19	19	19	6	23	25	31	15	3	6	0	9.0	120	12.6
24	0	0	3	9	6	6	6	7	12	13	18	18	18	17	16	19	15	24	14	20	13	10	11	6	11.7	84	12.0
25	4	-3	0	8	8	6	6	7	7	15	16	15		18	15	15	21	19	19	19	-5	3	10	8	10.0	45	11.8
26	5	-2	3	9					12	15	16	17		19	18	19	19	17	18	15	9	9	4	10	12.2	46	12.8
27Q	6	8	3	4	6	6	7	8	6	9	15	18	21	18	16	15	12	8	24	13	10	12	5	4	10.6	39	11.8
28Q	-14	3	4	6	6		8	9	9	12	14	20	19	16	14	14	15	9	19	20	19	12	5	7	10.6	39	11.8
29	9	8	8	6	5	6	7	10	15	18	20	20	24														
30														13	19	19	25	45	24	23	21	15	8	9			
M	-14.6	-11.9	-14.4	-5.8	2.6	4.0	7.1	8.9	10.3	12.0	15.3	15.8	19.1	19.7	18.9	20.2	21.0	22.1	20.4	18.5	15.0	8.4	5.0	-3.2	8.8	106	12.2
QM	8.2	8.0	7.6	7.7	6.6	6.1	7.1	8.6	10.6	15.0	16.5	18.5	19.1	17.9	16.5	16.0	15.0	14.1	13.3	12.9	12.3	12.0	11.9	12.0			

MAY

DAY	0–1	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–10	10–11	11–12	12–13	13–14	14–15	15–16	16–17	17–18	18–19	19–20	20–21	21–22	22–23	23–24	M	R	QM
1	8	1	-9	-6	0	2	5	4	9	12	17	20	21	22	20	18	17	18	16	15	12	10	10	10	10.3	39	12.7
2Q	2	1	-3	1	3	3	3	5	8	13	16	20	22	21	20	19	18	18	17	16	15	13	12	12	11.5	26	13.3
3Q	9	9	8	7	7	7	7	7	10	13	16	18	18		17	16	15	15	15	14	14	13	13	13	11.7	20	11.7
4	15	1	2	-13	-22	-24	-6	2	8	14	19	23	26	32	27	31	28	28	19	34	29	31	11	12	13.2	101	12.4
5D	8	5	-64	-49	-43	-22	-10	11	9	-3		17	31	27	28	24	27	39	29	22	26	-37	-31	-1	2.2	178	11.7
6D	-12	-3	-6	-31	-31	-4	-1	7	16	7	5	13	19	24	27	22	31	34	30	25	11	22	-13	-5	7.7	230	11.0
7	-10	-106	-70	-37	-18	5	14	12	5	11	18	19	22	25	26	28	29	19	47	19	8	-5	9	21	3.3	150	11.9
8	-19	-20	-23	-18	-10	2	4	7	5	8	15	19	21	19	22	25	25	28	26	20	19	9	14	-13	8.0	116	12.2
9	-10	-9	-2	-2	-1	0	6	5	11	13	14	17	13	26	23	31	28	27	28	-3	6	-4	2	-13	8.7	150	12.3
10	-49	-43	-30	-7	3	5	4	9	9	8	13	18	17														
11																											
12																											
13																											
14											17	19	18	17	20	20	21	19	19	20	15	13	9	-3		43	
15	2	-1	1	2	2	2	3	6	6	10	17	17	16	17	18	21	21	19	23	21	17	15	5	10	11.3	52	11.9
16D	-4	-3	1	-2	-10	0	5				16	17	19	20	21	37	29	49	41	25	23	19	10	-7	14.1	88	12.0
17D	-4	-16	-31	-15	-12	-1	-11	19	16	17	7	13	22	22	26	20	20	26	9	23	19	14	4	-7	7.9	90	12.1
18	-25	-12	-15	1	3	5	13	13				14	12	11	15	15	22	-16	22	20	17	13	5	4	6.5	45	10.7
19	2	-7	-16	-1	3	7	7	10	10	12	14	16	16	14	16	18	17	20	24	19	26	2	-1	-7	9.2	78	11.3
20	-6	-14	0	-2	-3	-4	-3	9	7	8																	
21																											
22											17	16	15	15	17	13	13	14	18	18	21	13	11	10		23	
23	6	-3	4	7	5	7	7	6	9	9	15	16	15	14	13	15	18	16	17	11	13	12	12	8	10.5	23	10.9
24Q	7	7	7	4	5	6	7	8	9	12	14	17	18	17	17	17	18	20	15	13	17	13	13	7	11.9	21	11.0
25	8	8	7	5	4	9	11	12	14	17	19	19	20	19	18	20	31	22	18	21	21	12	10	11	14.8	51	12.4
26	-3	-16	-1	3	-4	7	8	10	13	13	16	14	14	14	13	12	13	14	16	18	13	13	12	10	9.2	60	10.5
27Q	9	10	7	6	5	7	8	10	12	15		18	15	14	14	15	13	13	14	16	14	10	10	11	11.6	18	11.0
28Q	10	9	6	2	2	1	2	3	6	10	13	14	16	18	20	22	21	22	18	15	14	11	8	8	11.3	24	11.3
29	8	8	8	6	8	6	8	9	9	11	15	16	16	14	15	15	20	24	27	22	21	15	12	4	13.3	33	11.5
30	-2	-7	-5	-3	2	7	8	10	11	12	15	16	17	17	18	18	28	19	31	35	33	7	8	3	12.4	72	11.6
31D	-1	-16	-40	-24	-31	-7	-3	-5	2	6																	
M	-2.0	-8.6	-10.6	-6.6	-5.3	1.1	3.8	7.9	9.3	10.8	14.9	17.0	18.0	19.1	19.6	20.6	21.8	21.1	22.5	19.1	17.6	9.8	6.5	4.0	10.8	72	11.5
QM	6.6	4.7	3.9	3.5	3.9	5.5	6.8	8.2	10.2	12.3	16.1	17.0	17.1	17.0	16.3	15.9	15.3	14.9	14.8	14.1	12.9	12.5	10.7	9.6			

JUNE

DAY	0–1	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–10	10–11	11–12	12–13	13–14	14–15	15–16	16–17	17–18	18–19	19–20	20–21	21–22	22–23	23–24	M	R	QM
1D													23	23	23	35	43	33	37	21	16	19		-27			
2D																						15	4				
3																											
4																											
5																											
6																											
7D																											
8																											
9																											
10																											
11Q																											
12D											18	15	23	23	23	35	43	33	37	21	16	19		-27			
13	-37	-15	-5	3	4			10	14	18	17	7	19	21	23	25	17	32	26	21	23	15	4		11.0	105	11.9
14	-3	-19	-8	4	1	2	5	1	6	13	11	20	18	16	16	15	15	14	14	13	15	12	10	7	8.3	48	11.0
15Q	6	5	5	5	4	4	2	1	6	10	8	19	19	19	17	15	16	15	16	16	15	13	14		10.4	23	11.0
16D	7	5	7	10	12	21	11	-15	-31	-25	-45	-19	-49	13	16	24	17	22	22	16	20	22	13	-22	2.2	145	11.7
17	-22	-30	-25	-31	-8	11	12	8	2	8	6	14	18	19	17	16	17	24	25	15	10	-1	-9	-4	3.8	66	11.8
18	-7	-16	-20	-10	-3	1	10	11	7	6			12	11	9	20	26	26	27	21	18	8	-10	-19	6.7	100	11.7
19	-13	-13	-6	1	5	6	5	5	9	8	8	11	16	22	20	19	17	23	19	21	19	14	14	2	9.7	70	12.7
20	-3	-16	-25	-7	2	8	11	10	10	14	10	13	16	15	11	18	13	20	21	14	14	13	10	1	8.0	90	12.7
21	-16	2	5	4	3	2	5	6	8	10		19	19	15	24	19	23	18	18	18	18	17	17	11	11.5	78	13.5
22	7	0	0	4	14	14	15	15	21	18	21																
23Q																											
24Q																											
25Q										19	21	21	19	17	16	14	15	16	17	18	16	13	10	11			
26	13	11	6	8	7	9	11	12	14	17	21	19	14	23	23	17	17	18	19	17	17	14	10	8	14.4	36	14.1
27	4	-37	-40	-14	-7	-1	1	12	15		17	19	23	27	29	23	24	23	18	21	19	23	5	-3	8.7	84	13.1
28	-16	-38	-61	-36	-6	5	9	8	-2	9	17	18	20	24	34	23	31	33	37	16	13	13	-21	-16	4.7	125	13.9
29	-12	-28	-11	-32	13	3	5	8	8	7		18	17	20	21	24	33	24	23	26	22	10	1	-3	8.5	96	14.7
30	-19	-20	1	-2	-11	9	14	5	3	10									12								
M	-7.4	-13.9	-11.8	-6.3	2.0	6.8	8.3	6.5	6.0	9.5	10.0	13.9	13.6	19.0	20.0	20.5	21.6	22.7	21.9	18.3	17.0	13.7	6.3	-4.2	(8.8)	(82)	(12.8)
QM	9.7	8.6	7.4	6.3	6.2	7.1	8.9	10.4	12.3	13.4	15.7	19.6	18.7	17.8	17.0	15.8	15.3	16.4	15.6	15.0	14.3	13.7	13.2	10.5			

JUNE 20 -30: OWING TO "SETTING", ABSOLUTE VALUES UNCERTAIN.

Tromsö. Declination. Storminess (+ W). Unit Gamma. *Gr. M. T.*

HOURLY MEAN VALUES.

APRIL 1930

																										DIURNAL SUM		
DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	PS	NS	AS
1																												
2																												
3Q																												
4Q																												
5Q																												
6																												
7D														37	27	41	71	150	-13	33	15	-39	-137	-75				
8D	-181	-129	-327	-139	-66	-59	-24	-21	-37	-32	-12	-120	-24	-6	4	15	7	-21	51	57	30	11	-37	-45	-47	175	1301	1476
9	-161	-181	-77	-54	-24	-8	-9	-16	-17	-8	0	8	16	22	23	64	-7	55	26	-3	15	31	56	-55	-13	316	630	946
10D	-86	-99	-107	-74	-10	-44	-14	20	13	-17	-16	-32																
11																												
12															15	8	10	12	10	7	33	-14	-87	-95				
13	-41	-86	-132	-67	-24	-24	1	1	4	-2	-17	6	22	10	5	21	29	6	5	25	-22	9	-12	-54	-14	144	480	624
14	-76	-118	-137	-44	-16	-16	-3	-2	-4	-13	2	3	1	0	0	0	-1	11	-16	-14	7	-37	-5	-84	-23	24	586	610
15	-115	-83	-102	-119	-69	15	24	1	-6	-5	-5	15	-5	16	6	12	40	22	29	46	42	-41	1	-89	-16	254	639	893
16	-190	-138	-97	-154	-14	5	8	-13	-7	-9	1	15	7	-8	23	0	0	0	0	0	0	10	-12	-119	-29	69	762	831
17	-100	-68	-157	-74	-42	-12	-1	0	-7	-9	2	2	13	8	0	0	7	12	6	-2	27	-50	-12	-3	-19	77	537	614
18	-29	-24	-10	-19	-5	-3	-4	3	2	0	0	0	0	12	-6	36	31	35	18	21	25	-5	-77	-49	-2	183	231	414
19	-52	-14	-22	-34	-6	2	19	22	10	-10	5	12	-8	-12	-1	8	11	37	98	11	10	26	-16	-13	4	271	176	447
20D	-4	-13	-19	-16	-10	-13	-11	-8	45	2	-30	-61	-88	7	26	13	66	109	53	19	12	16	23	-33	4	381	283	664
21	-89	-89	-52	-62	3	5	9	2	-5	-22	-6	9	8	7	-9	-1	29	11	18	26	27	-59	19	-33	-11	173	428	601
22D	-119	-103	-107	-43	3	2	4	7	-11	-37	-25	-8	18	25	31	34	87	-12	38	36	33	-39	-21	-93	-12	318	618	936
23	-179	-93	-52	-18	9	2	11	22	11	0	1	-6	-15	1	6	10	-33	25	35	61	7	-29	-16	-33	-11	201	474	675
24	-28	-28	-17	2	-1	-3	-1	-2	9	-9	14	-4	-2	6	-7	9	-3	27	1	23	2	-4	2	-12	-1	95	121	216
25	-13	-37	-25	0	7	0	0	0	0	-4	0	-12	-6	-1	-9	-4	16	10	16	18	-61	-27	-3	-4	-6	67	212	279
26	-10	-28	-15	8	-1	-1	-6	13	11	-1	0	0	0	0	0	9	10	0	13	6	-14	-9	-22	0	-2	70	121	191
27Q	0	0	-16	-8	3	0	0	0	-11	-17	-2	0	11	0	0	-1	-14	-27	31	1	-9	3	-18	-17	-4	49	142	191
28Q	-73	-17	-11	-1	3	7	0	0	0	0	0	0	0	0	0	0	-2	-23	16	13	21	1	-18	-9	-4	61	154	215
29	0	0	0	0	0	0	0	0	0	0	0	0	20															
30														0	16	16	36	104	34	15	28	12	-7	-2				
M	-77	-67	-74	-46	-13	-7	0	1	0	-10	-4	-9	-1	7	8	14	20	26	23	19	11	-11	-19	-43	-11	163	439	601
MPS	0	0	0	0	1	2	4	5	5	0	1	4	6	8	9	14	23	30	24	20	16	5	5	0				
MNS	77	67	74	46	14	9	4	3	5	10	6	13	7	2	2	0	3	4	1	1	5	17	25	43				

MAY

1	-5	-29	-59	-43	-24	-15	-7	-10	0	-2	0	0	0	0	0	0	0	4	0	0	0	-6	-5	0	-8	4	205	209
2Q	-24	-29	-26	-20	-12	-12	-15	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	146	146
3Q	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	1	6
4	19	-29	-41	-68	-97	-101	-35	-18	-8	0	10	17	25	48	34	47	41	43	16	68	52	59	-5	3	3	482	402	884
5D	-5	-14	-241	-188	-176	-97	-57	11	-3	-51	-28	-5	51	33	36	30	40	89	48	28	74	-164	-142	-41	-32	440	1203	1643
6D	-72	-42	-45	-128	-127	-37	-32	-5	18	-17	-40	-12	1	22	33	20	51	63	53	36	-8	31	-82	-53	-11	328	700	1028
7	-64	-383	-260	-148	-82	-7	23	12	-18	-5	0	2	11	17	30	40	46	18	109	17	-22	-56	-10	26	-29	381	1055	1406
8	-94	-98	-105	-83	-57	-18	-10	45	-19	-15	-10	0	8	7	18	27	34	43	38	21	19	-8	9	-81	-14	269	598	867
9	-64	-58	-33	-31	-17	-25	-4	-10	1	0	-12	-5	-18	29	21	54	42	41	45	-53	-22	-53	-31	-80	-12	233	518	749
10	-194	-173	-125	-47	-12	-8	-10	2	-4	-15	-15	0	-4															
11																												
12																												
13																												
14											0	0	-3	0	11	14	21	17	17	24	7	4	-5	-43				
15	-23	-31	-22	-16	-17	-18	-14	-10	-17	-9	0	0	-2	0	6	22	22	20	33	26	16	16	-20	0	-2	155	199	354
16D	-44	-39	-24	-28	-57	-25	-7	-6	-4	-2	0	0	7	11	15	69	50	117	93	39	36	26	-2	-57	7	463	295	758
17D	-43	-81	-129	-70	-65	-28	-63	31	19	15	-28	-12	20	17	34	15	21	42	-12	34	24	8	-25	-57	-14	280	613	893
18	-113	-66	-77	-20	-12	-8	17	14	8	2	-2	-8	-15	-16	-2	-3	26	-97	29	24	16	4	-20	-22	-14	140	481	621
19	-17	-51	-79	-24	-12	0	0	0	-3	0	0	0	0	-5	0	8	10	23	37	21	46	-31	-39	-56	-7	145	317	462
20	-47	-72	-25	-21	-20	-18	-22	-3	-12	-15																		
21																												
22											0	0	-3	-1	11	0	0	3	19	17	29	7	0	-1				
23	-12	-23	-13	9	-3	3	0	-7	-1	-11	0	0	0	0	0	-6	16	10	14	-3	1	2	4	-7	-1	64	80	144
24Q	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	23	6	-1	17	7	8	-8	3	77	12	89
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	18	57	23	17	27	31	2	0	6	8	191	6	197
26	-37	-80	-28	9	-30	-5	-5	-2	0	0	0	0	0	0	0	0	-2	3	10	13	4	3	0	0	-5	42	189	231
27Q	0	5	0	0	0	0	0	0	0	8	10	12	-2	0	0	4	0	0	2	9	6	0	0	0	2	56	2	58
28Q	0	0	-7	-14	-15	-20	-21	-20	-18	-6	0	0	0	14	22	30	24	28	16	7	0	0	-8	-10	0	141	139	280
29	0	0	0	0	0	0	0	0	-9	0	0	0	0	0	3	5	22	35	45	29	27	11	3	-20	6	180	29	209
30	-28	-11	-15	-16	-18	-1	-1	0	-1	0	0	0	0	0	14	14	47	21	56	73	66	-13	-9	-26	6	293	139	432
31D	-37	-81	-160	-99	-128	-29	-35	-45	-31	-21																		
M	-29	-45	-49	-34	-31	-15	-10	-1	-3	-5	-4	0	3	7	11	16	22	21	26	17	16	-9	-14	-19	-5	197	333	530
MPS	1	0	0	1	0	0	2	5	2	1	1	1	5	8	12	18	24	28	29	21	20	7	1	2				
MNS	30	45	49	35	31	15	12	6	5	5	5	1	2	1	1	2	1	7	3	4	4	16	15	21				

JUNE

1D																												
2D																												
3																												
4																												
5																												
6																												
7D																												
8																												
9																												
10																												
11Q																												
12D											10	-15	19	17	20	67	94	62	77	28	8	18		-117				
13	-153	-68	-34	-8	-2	1	4	7	17	24	8	-39	2	14	20	22	8	59	42	27	32	7	-21		-3	289	325	614
14	-28	-81	-42	-5	-1	-8	-3	-20	-21	7	-12	3	-3	0	0	0	0	0	0	0	0	-4	0	0	-9	10	228	238
15Q	0	0	-2	0	0	0	-12	-20	-21	0	-22	0	0	0	0	0	5	0	7	8	3	0	0		-2	23	77	100
16D	1	-2	-7	17	22	54	15	-75	-135	-120	-198	-127	-225	-22	-2	29	8	23	23	7	20	27	-1	-110	-32	246	1024	1270
17	-100	-123	-102	-122	-36	18	15	-2	-27	-13	-29	-17	0	2	-1	5	8	29	34	3	-12	-48	-74	-80	-27	114	756	870
18	-52	-80	-88	-54	-28	-19	6	6	-13	-21			-22	-26	-28	18	38	36	40	20	12	-17	-11	-100	-17	176	559	735
19	-74	-72	-42	-18	-3	-4	-10	-16	0	-20	-26	-27	-7	13	11	13	8	24	11	19	18	3	1	-30	-10	121	358	479
20	-41	-84	-105	-48	-14	2	9	-3	-4	0	-19	-22	-8	-11	-19	10	-7	16	15	-4	-1	-2	-13	-35	-16	52	440	492
21	-88	-25	-7	-11	-11	-20	-20	-17	-15	-13		0	-1	-6	24	14	28	8	5	10	11	13	-15	0	-6	113	249	362
22	-12	-35	-24	-13	24	19	18	11	28	12	15																	
23Q																												
24Q																												
25Q										12	11	0	0	0	0	0	0	0	0	0	0	0	-7	0				
26	0	0	-10	0	0	0	3	-1	-1	3	9	-8	-16	18	21	0	0	5	10	4	5	-1	-7	-11	1	78	55	133
27	-28	-160	-165	-72	-48	-34	-33	-2	2		8	0	15	30	39	22	24	23	4	16	29	30	-25	-45	-15	242	612	854
28	-96	-165	-235	-150	-46	-14	-1	-16	-54	-22	8	-6	4	20	58	21	51	54	69	1	-8	-5	-110	-90	-31	286	1018	1304
29	-81	-130	-70	-135	-3	-14	-18	-16	-22	-32		-5	-6	8	13	24	55	-6	22	33	19	-15	-40	-45	-21	174	638	812
30	-104	-102	-28	-32	-63	1	12	-26	-36	-19									-18									
M	-57	-75	-64	-43	-14	-1	-1	-13	-20	-13	-18	-19	-17	4	10	16	21	22	21	11	9	0	-23	-49	(-14)	(148)	(488)	(636)
MPS	0	0	0	1	3	6	5	2	3	4	5	0	3	9	15	16	23	24	26	13	11	7	0	0				
MNS	57	75	64	44	17	7	7	15	24	17	23	19	20	5	5	0	2	2	5	2	2	7	23	49				

Tromsö.

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

HOURLY MEAN VALUES

Gr. M. T.

JULY 1930

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	-7	-13	-10	2	3	4	55	2	1	4	10	16	18	22	17	23	21	19	24	19	18	10	8	-17	8.3	70	8.6
2	-18	-21	-11	-6	0	1	-1	1	7	9	11	11	14	21	16	16	20	26	20	29	16	15	5	-17	6.8	111	8.6
3	-10	-19	-6	-1	4	3	4	5	10	10	17	18	20	26	26	20	26	25	26	16	23	5	3	-8	10.1	75	8.9
4	-22	-23	-27	-16	-2	-1	2	-8	3	6	7	21	20	16	20	23	29	20	26	24	18	8	-19	-52	3.0	101	8.9
5	-17	-24	-8	-6	-1	-1	5	4	6	14	17	20	21	22	20	20	23	25	26	32	6	5	3	1	8.9	85	9.2
6	-13	-9	-13	-22	0	6	5	5	6	7	9	17	21	20	17	14	15	19	21	17	17	13	13	12	8.2	77	8.8
7	2	-3	-17	-9	3	1	-3	1	6	10	13	16	20	20	14	15	15	16	22	5	11	8	3	1	7.1	52	9.2
8Q	3	5	2	3	3	4	4	6	8	10	12																
9										12	13	13	14	14	14	22	30	34	38	34	22	18	16	12			
10D	-1	-43	-4	-34	-28	7	2	-1	-1	-5	-1	8	18	17	20	18	20	21	23	18	22	13	-1	-19	2.9	115	9.1
11D	-46	-31	-13	-35	-42	-13	-6	6	8	10	11	12	14	17	17	15	15	18	26	19	17	6	5	-6	1.0	108	9.0
12D	-5	-12	-33	5	-4	2	-18	6	11	13	-4	0	1	5	9	5	9	9	11	3	-13	-37	-22	-12	-3.0	120	9.2
13D	-16	-9	-18	-13	-11	-13	4	-1	-1	0	-2	-4	-7	10	17	5	17	12	11	2	-5	-6	-5	-22	-2.3	160	9.0
14	-31	-34	-19	-9	-10	-9	-3	-1	-2	1	3	4							14	21	13	9	7	6			
15	2	2	4	1	7	3	4	6	7										18	17	15	12	6	3			
16	6	6	4	6	7	11	11	17	18	19	19	20	20	23	15	22	20	22	27	35	17	13	8	3	15.4	92	8.9
17	-25	-39	-28	-8	3	-1	4	12	11	10	10	8	8	0	10	21	25	19	20	18	16	-1	3	-1	4.0	180	9.6
18	1	1	4	5	4	6	8	11	14	11	12								23	23	18	12	7	7			
19	6	1	2	-2	2	1	2	5	6	10	13	14	12	8	10	10	12	14	18	17	2	1	-13	-8	5.9	77	9.8
20Q	-10	-2	-3	3	7	6	9	12	14	14	16	15	15	13	13	15	12	11	12	15	17	8	8	5	9.4	60	10.9
21Q	7	6	3	2	3	6	11	17	15	11	8	10	11	11	13	13	15	17	18	16	17	10	4	1	10.2	28	8.7
22Q	4	7	5	5	6	7	7	10	12	14	15	16	17	18	13	14	13	13	12	13	20	10	12	11	11.4	25	10.8
23Q	9	4	3	3	4	3	5	6	8	10	13	15	12	14	13	10	17	18	17	19	16	16	11	7	10.5	24	9.0
24	-1	2	2	4	5	4	3	4	5	8	11	12	12	10	10	10	11	13	20	24	28	15	5	-12	8.5	125	7.6
25D	-19	-22	-34	-43	-29	-16	-4	-1	10	8	18	20	32	17	26	20	26	23	29	17	16	17	-4	-4	4.3	152	8.7
26	-28	-30	-46	-13	8	15	5	15	8	5	2	3	21	21	9	14	16	18	8	16	13	13	6	-1	4.1	145	8.5
27	-8	-37	-19	-6	-1	2	4	5	7	11	12	15	11	19	14	11	16	15	14	13	14	11	5	2	5.4	86	9.0
28	-19	-23	-28	-4	-1	1	4	6	7	10	15	17	17	17	15	19	11	15	18	19	2	4	8	2	5.5	65	9.7
29	-1	-7	-7	-17	1	2	-3	3	5	8	8	-2	12	20	21	22	16	17	26	10	17	11	17	-10	7.0	100	8.8
30	-9	-1	-1	-5	4	4	5	11	12	10	14	14	16	15	14	14	24	21	15	17	13	5	2	-1	8.9	93	10.7
31	-5	-36	-26	-9	-5	-2	2	0	4	6	8	11	12	12	12	11	12	14	15	9	4	5	6	3	2.6	105	7.3
M	-9.0	-13.5	-11.4	-7.3	-2.0	1.4	2.6	5.5	7.5	8.9	10.3	12.1	14.9	15.9	15.4	15.6	18.0	18.3	19.9	17.9	13.7	7.6	3.6	-3.8	6.5	93	9.1
QM	5.0	4.8	3.9	3.7	3.3	4.4	5.6	7.0	8.5	10.4	12.0	13.4	13.9	14.4	13.7	12.9	12.9	12.7	12.2	11.4	10.4	8.9	7.9	6.4			

AUGUST

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	-2	-13	-2	-4	-1	5	6	5	9	13	12	16	19	17	18	15	14	15	10	14	14	10	6	6	8.4	44	9.5
2Q	7	2	2	0	1	6	6	5	6	8	12	15	15	19	20	22	19	13	13	14	10	8	6	5	8.7	34	9.1
3Q	6	2	5	4	5	5	4	5	7	9	12	14	15	17	14	12	11	17	14	14	17	8	11	8	9.2	46	9.5
4Q	-5	-4	3	-4	-1	4	9	7	6	8	12	14	15	15	14	14	13	13	13	11	8	8	4	1	7.4	39	8.6
5	-4	-4	1	2	2	3	4	6	9	11	13	17	19	21	19	15	20	13	25	23	23	14	-3	-8	10.1	63	8.1
6D	-4	-7	-4	2	-5	14	8	14	8	17	14	11	8	-1	39	31	44	44	29	41	23	11	-7	-4	13.6	130	8.9
7D	23	29	-25	-7	-7	1	14	11	8	8	9	11	13	11	9	10	17	24	17	17	15	17	19	-7	10.3	217	9.1
8D	-25	-43	-46	-7	11	8	8	5	14	11	-3	8	17	16	20	19	21	38	29	23	11	2	5	-16	5.3	137	8.9
9D	-9	-31	-19	-14	-3	-8	2	2	-16	-4	-8	-1	5	11	14	13	13	20	18	23	11	-8	-4	-7	0.0	108	8.9
10	-8	-8	-2	4	6	11	11	8	5	8	13	14	14	12	21	15	23	9	15	16	16	9	11	3	9.4	104	8.5
11	-43	-34	-14	2	5	5	6	6	6	2	6	10	11	11	14	17	16	11	9	16	23	8	3	0	4.0	130	9.3
12D	4	3	-34	-43	-16	7	3	3	5	4	6	5	2	3	4	5	6	9	20	18	6	8	-22	-21	-0.6	121	7.4
13	-25	-29	-23	2	6	6	7	9	4	7	11	9	11	13	14	13	13	5	13	19	8	9	5	-4	4.3	105	8.7
14	-1	2	-7	3	4	4	4	8	11	14	8	9	8	13	12	10	11	10	15	11	-7	3	-5	-6	5.6	100	8.6
15	-10	-13	-14	6	10	2	8	-4	10	13	14	12	11	10	17	21	17	12	11	10	9	7	6	5	7.1	75	7.4
16	5	4	4	-2	4	8	7	12	11																		
17Q																											
18																											
19													21	11	17	15	8	11	9	15	13	9	4	3			
20	4	-1	-13	-3	2	-1	2	2	8	9	10	12	11	11	14	11	15	11	13	9	1	-11	5	3	4.8	59	6.3
21	-7	-16	-15	-7	-2	0	3	5	8	9	11	14	13	21	29	16	22	29	16	20	16	9	1	-1	8.1	83	8.1
22	-7	-34	-61	-31	5	9	7	8	11	13	11	8	7	17	14	14	11	13	15	20	-6					113	
23	-22	-28	-48	-16	1	5	-1	1	6	8	11	12	19	21	22	14	17	20	11	16	20	-25	-5	-4	2.3	164	7.9
24	-18	-20	-16	-13	0	3	3	4	5	6	7	6	15	12	15	11	8	23	12	12	6	2	-5	-3	3.2	84	7.6
25	-4	-20	-21	-10	-19	2	2	2	5	10	12	15	14	11	11	11	9	9	12	10	2	8	4	1	3.2	52	7.6
26	-3	-3	-5	-4	-1	-2	-3	3	7	11	13	16	15	16	18	8	7	11	13	10	11	6	-19	-1	5.2	84	7.9
27	2	4	-1	-6	-4	0	5	9	7	8	9	15	19	16	17	14	20	12	11	9	-1	8	4	5	7.6	38	8.8
28Q	6	5	3	5	3	3	4	5	6	10	11	12	13	12	11	11	12	14	5	19	16	-3	0	2	7.7	47	8.0
29	23	-21	-11	-6	1	0	1	2	5	8	11	13	13	11	13	11	11	16	17	22	3	8	10	11	7.2	104	7.8
30	9	8	9	6	7	9	11	11	12	14	17	20	20	19	14	13	13	12	13	13	14	-7	-16	-6	9.8	47	8.0
31	-4	-4	-3	-6	-3	2	5	7	8	11	12	17	23	23	22	19	22	20	25	20	19	2	5	6	10.3	50	7.9
M	-4.0	-9.8	-12.8	-5.3	0.4	4.0	5.2	5.8	6.8	9.1	9.9	12.0	13.8	13.9	16.6	14.3	15.5	16.2	15.1	16.6	10.8	4.4	0.9	-1.7	6.6	88	8.3
QM	5.3	4.3	3.2	2.7	2.7	3.0	3.9	5.1	6.5	8.8	11.2	13.3	13.5	13.9	12.6	12.0	11.0	11.2	10.9	10.3	9.5	8.7	7.2	6.0			

SEPTEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	5	4	2	-6	4	-4	-1	8	7	6	5	8	-1	10	13	15	15	15	14	14	14	13	6	5	7.1	59	6.8
2	4	4	-14	-4	-4	5	8	8	8	8	8	7	8	7	7	8	7	6	5	5	5	4	4	3	4.5	72	6.8
3D	-1	-2	1	2	-5	1	2	2	8	3	9	8	2	11	34	47	30	33	32	12	14	5	-22	-31	8.1	193	6.6
4	-21	-22	-39	-7	-7	2	5	4	1	1	-1	5	13	11	10	7	6	9	10	7	6	5	0	2	0.3	122	6.2
5	3	3	0	1	2	3	2	2	5	7	9	8	6	18	7	14	17	23	20	14	2	11	1	-10	7.0	137	6.7
6D	-6	-12	-13	-5	-5	2	3	5	6	1	-10	-5	10	16	-1	10	13	2	11	4	8	4	-7	-11	0.8	62	6.7
7	-7	-4	-2	1	0	-1	0	5	8	7	2	11	11	8	-1	9	11	-12	-17	10	14	10	5	2	5.3	59	5.9
8	-8	-10	-7	-1	1	-2	4	3	5	8	9	10	10	11	8	9	16	10	19	11	11	4	5	6	5.5	57	6.3
9	6	5	5	4	2	4	4	5	8	4	11	10	8	28	11	12	18	3	7	7	-13	-4	-1	11	6.4	80	6.7
10	-16	-28	-15	-13	0	2	4	4	7	8	10	10	12	11	8	9	9	7	9	7	3	3	5	5	2.5	135	6.7
11	5	5	4	2	0	0	2	3	8	14	17	17	15	13	12	8	8	10	8	5	8	9	2	-13	6.8	51	6.8
12	-4	3	2	-2	-1	4	4	7	8	9	11	14	12	11	10	7	8	7	5	2	8	-6	-43	-38	1.6	90	6.3
13	-20	-1	-8	-11	-1	-1	0	3	6	9	10	11	11	9	8	7	6	5	6	7	3	-5	0	-9	1.9	90	6.1
14Q	-34	-44	-44	-19	-1	-1	-1	2	6	9	13	15	15	9	9	3	2	1	0	1	-6	0	1	0	-2.8	101	4.9
15Q	-8	-3	-6	-2	1	2	9	11	7	9	8	8	7	6	5	5	6	11	10	7	8	4	5	4	4.8	36	4.2
16Q	4	3	2	2	1	0	0	2	5	7	9	10	11	11	10	11	5	6	13	10	8	7	7	8	6.3	28	6.3
17	6	6	5	5	5	4	4	4	6	11	14	18	18	17	14	16	13	11	9	8	8	7	6	5	9.2	32	7.1
18D	5	5	4	4	4	4	4	5	6	5	-4	-13	-3	14	29	32	40	19	14	23	-1	2	-17	19	8.3	158	6.8
19	55	25	20	13	12	4	4	4	5	8	6	7	17	17	5	8	20	17	13	12	2	-7	-16	-7	-0.4	151	6.4
20	2	-10	2	2	4	3	3	2	2	4	6	11	11	12	8	12	11	9	9	9	0	3	4	5	5.2	46	4.9
21	5	3	2	2	2	2	3	2	-2	-1	10	11	12	19	21	19	18	6	14	11	4	-7	-12	-8	5.7	57	4.5
22	-9	-21	-7	-2	-3	0	0	3	5	8	8	8	8	7	6	5	4	5	5	4	4	6	1	2	2.0	32	4.1
23	2	-1	0	0	1	0	1	1	2	5	11	9	11	10	8	9	8	12	-10	9	6	3	-8	-13	3.2	62	3.5
24	-13	-10	-7	-5	-1	0	1	5	3	2	8	11	10	10	11	9	0	6	9	7	5	1	0	-2	2.5	68	4.6
25	1	1	2	1	2	2	3	3	5	7	10	11	11	13	11	7	5	6	-13	-7	4	4	-19	-7	2.6	58	5.0
26Q	-1	0	2	0	1	2	1	4	8	8	10	9	10	11	6	6	8	7	6	6	6	5	5	4	5.2	22	5.8
27Q	2	0	2	1	0	1	1	2	5	6	8	9	10	9	7	2	4	5	6	4	1	0	2	0	3.7	20	4.9
28	3	0	-3	-7	-1	-1	6	4	9	4	11	11	11	14	20	13	7	13	5	2	7	-7	-13	-9	4.1	105	5.6
29D	-13	-1	-7	-25	-13	-6	8	2	-4	-4	2	11	44	51	35	8	3	5	-1	-31	-13	-6	5	-10	1.7	110	5.3
30D	-28	-28	-41	14	21	-1	-31	-31	-33	11	8	8	8	10	9	6	6	4	6	6	3	6	3	1	-2.2	155	5.2
M	-6.4	-6.1	-6.6	-2.7	-0.1	0.9	1.8	2.8	4.3	6.1	7.6	8.9	10.9	13.4	11.3	11.1	10.8	9.5	8.6	6.2	4.3	2.5	-3.0	-2.9	3.9	81	5.8
QM	3.7	3.1	2.6	2.3	2.0	2.7	3.3	4.3	5.8	7.3	8.8	9.8	10.3	9.5	8.6	7.5	6.9	6.5	6.8	6.2	6.1	5.2	4.7	4.2			

Tromsö. **Declination. Storminess (+ W). Unit Gamma** *Gr. M. T.*

HOURLY MEAN VALUES.

JULY 1930

																									DIURNAL SUM		
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	PS	NS	AS
1	-40	-57	-44	-2	1	2	1	-14	-22	-18	-5	11	16	29	12	32	28	20	40	25	27	3	1	-79	-1	248	281	529
2	-77	-82	-49	-29	-9	-8	-18	-16	-2	0	2	6	1	26	9	9	23	43	25	58	20	21	-9	-79	-6	243	380	623
3	-50	-77	-31	-12	5	-2	-2	-4	8	2	18	19	21	41	42	22	43	38	45	15	42	-14	-16	-49	4	361	257	518
4	-90	-92	-104	-62	-15	-15	-9	-49	-16	-10	-16	29	21	8	22	32	53	23	45	43	27	-4	-89	-200	-20	303	770	1073
5	-76	-98	-40	-30	-13	-16	0	-8	-5	14	17	23	25	30	21	21	32	37	44	67	-14	-15	-15	-18	-1	331	350	681
6	-61	-45	-55	-83	-10	9	0	-5	-5	-6	-8	13	25	20	11	1	7	17	29	23	21	15	15	20	-2	225	278	504
7	-11	-25	-70	-70	0	-9	-27	-18	-5	-1	5	10	20	20	1	6	7	9	34	-23	1	-5	-17	-18	-7	112	269	381
8Q	-8	2	-5	0	0	2	-3	0	0	0	0																	
9										0	0	0	0	0	0	31	57	72	84	77	41	30	25	20				
10D	-21	-163	-25	-123	-103	11	-10	-25	-30	-49	-43	-17	15	10	21	16	22	27	34	22	41	10	-30	-85	-21	229	724	953
11D	-171	-118	-55	-128	-148	-56	-37	0	0	-1	-3	-2	0	10	11	6	7	17	44	24	21	-10	-10	-42	-27	140	781	921
12D	-34	-53	-125	7	-23	-6	-78	0	10	11	-52	-44	-48	-30	-16	-29	-15	-15	-6	-30	-80	-157	-101	-62	-41	28	1004	1032
13D	-12	-45	-73	-51	-46	-52	-3	-19	-30	-34	-49	-59	-72	-14	11	-28	13	-4	-6	-33	-53	-52	-44	-96	-38	24	935	959
14	-122	-130	-76	-39	-43	-42	-26	-25	-34	-34	-32	-33							4	32	8	-2	0	0				
15	-11	-8	2	-6	14	-3	-3	0	0										19	17	16	10	-5	-12				
16	4	2	5	8	14	22	18	25	20	29	22	23	20	30	6	26	22	27	49	78	23	14	5	-7	20	492	7	499
17	-101	-152	-109	-42	-4	-20	-8	15	5	-3	-6	-17	-20	-47	-12	27	42	17	24	22	18	-35	-17	-25	-19	169	618	787
18	-15	-19	-7	-2	-2	0	0	10	15	0	0								34	37	26	10	0	5				
19	2	-14	-9	-20	-7	-13	-15	-10	-10	-3	2	0	-5	-20	-12	-12	-6	2	19	15	-31	-31	-74	-57	-13	40	349	389
20Q	-57	-29	-33	-12	2	-6	0	5	5	2	8	0	0	-9	-8	0	0	0	4	9	17	-7	-3	-10	-5	52	174	226
21Q	0	-1	-16	-15	-15	-7	11	24	25	10	-4	0	0	0	5	11	16	21	27	21	27	7	-10	-18	5	205	86	291
22Q	-10	1	-6	-5	0	-3	-7	-2	0	2	5	7	10	6	-5	0	0	0	0	5	32	4	12	10	2	94	38	132
23Q	10	0	0	0	0	-4	-3	-3	0	0	1	5	-7	-1	-4	-8	14	18	11	24	22	24	12	5	5	146	30	176
24	-20	-10	-9	0	0	-4	-8	-15	-8	-3	0	0	0	0	0	0	6	15	38	55	72	29	-4	-57	3	215	138	353
25D	-80	-86	-123	-155	-115	-63	-27	-23	6	-7	19	20	58	9	41	24	46	35	56	19	17	26	-40	-35	-15	377	745	1122
26	-110	-116	-163	-50	20	42	3	32	0	-18	-36	-37	23	24	-14	4	13	20	-14	16	9	13	-5	-25	-15	219	588	807
27	-45	-137	-75	-29	-12	-5	-3	-5	-4	0	2	-8	0	-12	14	4	-6	12	9	9	10	16	-10	-15	-12	76	366	443
28	-80	-92	-105	-22	-12	-8	-3	0	-8	-8	0	0	0	0	0	13	-8	7	18	25	-30	-18	0	-15	-14	63	409	472
29	-20	-36	-33	-65	-3	-3	-24	-10	-10	-8	-16	-53	-7	19	26	34	11	15	46	-4	22	6	30	-55	-6	209	347	556
30	-54	-25	-22	-33	-3	-10	-14	0	0	-9	0	-2	2	0	-2	0	39	28	10	17	5	-16	-22	-27	-6	101	239	440
31	-35	-137	-98	-37	-23	-16	-7	-16	-3	0	0	0	0	0	0	0	5	10	14	-1	-19	-10	0	-2	-16	29	404	433
M	-48	-62	-52	-37	-18	-10	-10	-5	-3	-5	-6	-4	3	5	6	9	18	19	26	22	11	-5	-14	-35	-9	182	406	588
MPS	0	0	0	0	2	3	1	4	3	2	3	6	9	10	9	12	19	20	27	25	19	8	3	2				
MNS	48	62	52	37	20	13	11	9	6	7	9	10	6	5	3	3	1	1	1	3	8	13	17	36				

AUGUST

1Q	-30	-65	-24	-23	-18	0	0	-4	5	9	0	0	5	2	5	-4	1	0	-15	3	8	0	-13	-7	-7	38	203	241
2Q	-1	-12	-7	-7	-4	7	3	0	-3	1	2	0	-5	-5	19	27	23	0	6	8	-1	-3	-5	-5	2	95	58	153
3Q	0	-13	5	1	6	2	-6	-5	-2	0	0	0	0	2	0	0	0	8	4	5	21	-5	10	-48	-1	64	79	143
4Q	-30	-26	-5	-15	-10	1	14	9	-4	-2	0	0	0	0	0	0	0	0	0	0	-9	-3	0	-20	-4	24	124	148
5	-27	-26	-12	-2	0	-1	-5	0	8	9	5	10	10	17	11	2	22	3	35	38	41	15	-37	-50	3	226	160	386
6	-30	-37	-24	0	-23	38	14	30	5	27	8	-10	-25	-53	85	64	106	105	56	98	41	5	-50	-35	16	682	287	969
7	60	83	-94	-30	-30	-5	34	20	5	-3	-7	-10	-8	-13	-15	-9	16	40	16	18	16	25	37	-45	4	370	269	639
8	-100	-157	-164	-30	30	18	14	0	25	7	-49	-20	5	2	20	19	31	85	56	38	1	-25	-10	-75	-12	351	630	981
9	-47	-117	-74	-60	-17	-37	-6	-10	-75	-43	-67	-50	-35	-13	0	1	1	25	21	38	1	-60	-40	-45	-30	87	796	883
10	-45	-42	-17	7	15	28	24	10	-7	-5	0	0	0	-5	25	9	36	-10	11	15	21	0	10	-12	3	211	143	354
11	-164	-133	-67	-10	0	-2	1	-1	-3	-25	-17	-13	-15	-13	0	14	11	-5	-9	15	41	-6	-18	-21	-18	82	522	604
12D	-1	-2	-122	-155	-59	17	0	-5	-4	-16	-17	-27	-41	-37	-31	-23	-17	-8	29	25	-13	-3	-99	-92	-30	71	803	874
13	-97	-110	-88	-2	10	5	2	5	-16	-9	0	-7	-5	0	5	-1	1	-22	4	24	-8	0	-11	-37	-15	55	413	468
14	-23	-9	-36	-6	0	-3	-3	-2	6	8	10	-11	-20	-1	0	-5	1	-2	16	2	-55	-19	-41	-41	-10	42	277	319
15	-50	-56	-58	14	25	-2	16	-29	12	15	10	0	0	-2	19	35	21	6	0	0	0	0	0	0	-1	172	197	369
16	0	0	5	-13	8	20	15	24	15																			
17																												
18																												
19													33	0	23	21	-1	9	3	26	22	14	0	0				
20	0	-12	-43	-20	-3	-15	-10	-15	-2	0	0	0	0	0	11	6	21	9	18	3	-17	-54	0	-2	-5	68	192	260
21	-40	-66	-61	-29	-15	-9	-2	0	0	0	0	4	-3	27	55	15	41	61	17	32	22	3	-21	-24	0	277	270	547
22	-40	-126	-213	-111	9	23	12	11	15	18	0	-16	23	12	5	8	0	7	15	32	-52							
23	-90	-106	-173	-61	-4	8	-15	-12	0	-2	0	-3	15	27	35	8	20	30	0	17	35	-112	-41	-34	-19	195	653	848
24	-77	-81	-63	-52	-10	-2	-4	-2	-2	-4	-8	-17	7	-1	14	0	-8	43	7	8	-10	-22	-43	-32	-15	79	438	517
25	-30	-81	-80	-42	-73	-5	-7	-9	-5	3	5	9	0	-6	-3	2	0	0	9	1	-24	-2	-11	-18	-15	29	398	427
26	-29	-26	-29	-23	-11	-15	-21	-4	4	8	7	9	7	11	22	-10	-8	3	11	-2	5	-6	-88	-25	-9	87	303	390
27	-13	-3	-17	-31	-22	-9	6	17	11	-7	-13	5	12	4	10	1	22	0	-2	-5	-35	-1	-11	-5	-4	88	174	262
28	2	0	-2	6	1	0	1	2	-2	0	0	0	0	0	0	0	7	13	-18	28	21	-38	-23	-15	-1	81	98	179
29	57	-85	-52	-29	-7	-10	-7	-6	0	0	2	0	0	-3	5	0	2	20	23	42	-21	-2	9	15	-2	175	222	397
30	12	10	18	11	15	23	26	23	22	18	20	24	22	20	8	5	7	3	8	9	16	-51	-78	-40	6	320	169	489
31	-33	-30	-22	-29	-22	-2	6	8	7	8	5	14	32	35	33	25	42	33	53	34	31	-21	-8	0	8	366	167	533
M	-31	-48	-54	-27	-8	3	4	2	1	1	-4	-4	1	0	13	8	15	17	14	21	4	-14	-21	-26	-5	145	268	413
MPS	5	4	1	1	4	7	7	6	5	5	3	3	6	6	15	10	16	19	15	21	13	2	2	1				
MNS	36	52	55	28	12	4	3	4	4	4	6	6	5	5	1	2	1	2	2	1	9	16	23	27				

SEPTEMBER

1	1	0	-5	-30	5	-24	-17	8	0	-7	-16	-10	-42	-3	10	22	25	27	21	22	23	20	2	-1	1	186	155	341
2	-2	0	-60	-23	-22	6	13	8	3	-2	-6	-15	-12	-15	-12	-3	-5	-6	-9	-8	-7	-8	-6	-8	-8	30	229	259
3D	-19	-22	-8	-3	-25	-7	-7	-12	3	-19	-1	-10	-32	0	78	127	75	87	81	17	23	-5	-93	-121	5	491	384	875
4	-84	-87	-140	-33	-22	-4	3	-5	-20	-25	-36	-20	3	0	2	-5	-6	10	10	-2	1	-1	-12	0	-20	29	502	531
5	0	2	-10	-7	-6	-6	-7	-9	-5	0	0	-10	-17	25	-10	17	30	52	41	22	-17	16	-17	-51	1	204	172	376
6D	-36	-54	-55	-28	-25	-4	-2	-2	-2	-25	-66	-53	-5	17	-37	4	17	-18	11	-11	3	-8	-43	-55	-20	52	529	581
7	-37	-25	-16	2	-5	-10	-9	5	10	2	-21	3	0	-8	-36	2	10	17	31	9	23	12	-3	-10	-2	126	180	306
8	-44	-47	-35	-13	-4	-19	0	-9	-7	0	0	0	0	5	-1	8	28	16	33	21	-3	-4	-1	2	-3	113	188	301
9	3	4	4	0	-2	0	0	7	5	-7	4	-5	-12	55	3	12	35	-15	-2	-1	-67	-35	-23	19	-1	151	169	320
10	-69	-108	-61	-54	-9	-5	0	-5	0	0	0	0	0	0	-7	2	5	-1	7	0	-12	-9	0	0	-14	14	340	354
11	0	0	0	-5	-8	-11	-7	-9	3	18	24	20	13	8	8	-3	0	9	1	-8	3	10	-13	-61	0	117	125	242
12	-29	-4	-5	-18	5	6	10	15	0	0	0	6	0	0	0	-6	0	-1	-9	-19	3	-41	-162	-145	-16	45	439	484
13	-84	-17	-40	-48	-12	-14	-14	-9	-2	0	0	0	0	0	0	0	0	0	3	6	-8	-32	-19	-47	-14	9	346	355
14Q	-128	-166	-160	-72	-11	-12	-15	-8	3	8	12	18	21	5	9	-8	-12	-14	-18	-13	-36	-14	-9	-10	-26	76	706	782
15Q	-37	-18	-25	-12	-2	0	24	16	7	9	1	0	0	0	0	0	6	20	19	10	14	3	6	4	2	139	94	233
16Q	0	0	0		0	-5	-5	-2	-2	0	0	0	0	2	0	6	-10	-9	13	6	3	-2	2	3	0	35	35	70
17	0	1	3	0	1	0	-3	-2	-3	3	13	17	28	25	22	15	25	17	11	0	0	0	0	0	7	181	5	186
18D	0	0	-1	-1	0	-3	-3	-3	0	-5	-43	-77	-47	12	65	78	110	38	20	51	-27	-14	-47	47	5	421	301	722
19	-203	-96	-79	-52	-46	-5	0		-2	3	-8	-10	20	22	-15	-2	40	31	17	16	-17	-44	-72	-40	-23	149	691	840
20	-7	-44	0	0	6	1	0	-4	-7	-3	0	10	5	12	0	18	16	11	13	15	-16	-3	0	7	1	114	84	198
21	3	1	0	0	0	-1	0	-7	-25	-25	7	8	15	38	52	45	44	5	31	22	0	-35	-51	-38	4	271	182	453
22	-39	-51	-30	-14	-15	-7	-10	-4	0	5	2	0	0	0	0	0	0	0	0	1	0	-10	-4	0	-7	18	175	193
23	0	-7	-4	-3	-1	-5	-2	-3	-2	4	20	10	10	10	7	15	12	25	-49	17	8	-2	-27	-50	-1	138	155	293
24	-48	-37	-26	-19	-7	-5	-5	5	-7	-15		0	8	2	5	11	9	-22	-1	11	2	-10	-9	-13	-12	59	224	283
25	-1	0	2	-1	1	0	-2	0	2	5	5	13	6	1	-5	0			-72	-39	1	-1	-77	-35	-8	40	234	274
26Q	-13	-6	0	-6	-4	0	-7	-2	2	0	3	0	0	5	-7	-7	1	-2	-5	0	3	-2	-3	-3	-2	14	67	81
27Q	-1	-9	2	0	-3	0	-2	-1	3	0	0			0	-3	-15	-7	-5	-2	-12	-11	-16	-6	-10	-4	5	103	108
28	0	-8	-17	-31	-8	-9	10	-1	13	-12	8	5	3	15	38	18	0	19	-7	-14	5	-39	-57	-40	-5	134	243	377
29D	-53	-11	-30	-89	-48	-24	18	-6	-31	-37	-22	5	113	145	88	1	-12	-8	-27	-124	-61	-34	3	-45	-12	373	662	1035
30D	-103	-111	-145	41	67	-9	-112	-116	-101	13	-2	-5	-5	5	2	-2	-1	-3	0	2	-8	6	0	-8	-25	136	731	867
M	-34	-31	-31	-17	-7	-6	-5	-5	-5	-4	-4	-3	2	13	9	12	13	10	6	0	-6	-9	-26	-24	-6	129	282	411
MPS	0	0	0	1	2	0	3	2	2	3	3	4	8	14	13	14	16	13	12	8	4	3	0	3				
MNS	34	31	31	18	9	6	8	7	7	7	7	7	6	1	4	2	3	3	6	8	10	12	26	27				

Tromsö. Declination. D = 4° W + Tabular Quantities expressed in Minutes. *Gr. M. T.*

HOURLY MEAN VALUES

OCTOBER 1930

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1	1	2	2	1	5	6	9	8	5	6	8	9	10	9	10	1	8	2	6	8	3	2	1	-13	4.5	91	5.4
2	0	-13	-2	1	1	2	3	5	5	5	7	12	13	14	13	-4	6	6	-5	5	5	-7	-14	2	2.5	75	5.2
3D	-1	-1	-1	5	2	0	4	8	8	8	5	-1	11	8	-10	0	-13	20	4	1	11	-11	-7	-19	1.3	87	5.5
4	-10	-13	-6	-7	-2	0	3	5	6	6	8	6	8	10	10	5	5	6	5	-7	-5	4	17	-16	1.6	83	5.2
5	2	0	1	2	4	5	8	6	9	5	9	8	11	17	8	6	11	10	12	-1	8	5	0	-1	6.0	72	5.1
6	-11	-4	-3	-2	0	8	5	5	7	5	9	12	14	9	10	6	2	7	5	-4	-10	-5	-13	-5	2.0	109	5.6
7	-6	-5	2	3	4	2	4	2	3	8	9	10	11	11	5	8	3	6	8	2	-2	-7	-31	-16	1.4	104	5.6
8	-1	-2	-4	8	10	5	8	5	6	8	11	11	8	11	11	14	14	8	11	9	2	3	5	5	6.9	64	5.7
9	4	-4	5	-2	0	2	5	7	6	8	12	12	15	13	9	8	6	-4	6	7	5	-11	-26	2	3.5	74	6.2
10	2	3	2	3	3	2	3	3	4	6	8	8	8	8	7	6	7	4	7	-13	-10	-6	3	3	3.0	44	5.1
11Q	0	-3	1	1	3	7	7	5	7	8	11	12	14	11	10	11	11	8	10	7	4	5	5	5	6.7	26	5.8
12	5	5	5	4	4	3	3	4	6	8	11	11	11	10	9	7	6	8	11	-1	5	2	6	5	6.2	39	6.2
13Q	5	5	5	5	5	5	5	5	6	9	11	13	13	10	10	9	8	9	8	6	2	1	1	1	6.5	23	6.8
14D	2	2	4	2	3	19	17	14	12	12	14	17	19	12	14	12	14	14	14	35	8	-10	2	-19	9.7	116	5.5
15	-2	-4	0	2	3	3	3	2	4	5	6	7	8	7	7	7	7	6	6	5	5	4	4	4	4.1	36	4.7
16Q	1	0	3	3	4	3	4	3	4	5	5	6	7	7	5	5	6	6	5	3	-3	-3	0	5	3.5	15	4.7
17D	5	5	5	6	7	7	5	5	13	11	8	2	-1	6	14	-1	49	38	41	32	23	17	2	-25	11.4	200	6.4
18	-16	-2	-2	-5	0	1	2	2	3	6	9	14	14	14	17	14	11	8	10	12	-7	12	2	-4	4.8	55	6.0
19	14	-7	-2	-1	5	5	6	5	1	1	8	10	10	8	7	7	8	7	8	5	-1	-10	-7	-7	3.3	78	6.0
20	-10	-10	-13	-2	-1	3	8	5	6	8	8	7	12	10	10	-7	-7	8	17	17	2	2	0	-7	2.8	116	6.1
21	5	-3	-8	1	-2	4	6	8	5	10	9	8	9	9	8	7	8	9	23	0	3	2	1	3	5.2	116	6.1
22	3	3	3	3	5	3	3	5	6	7	8	8	8	7	7	7	6	-7	-4	9	15	5	3	3	4.8	45	5.1
23Q	0	2	0	2	2	4	3	4	6	8	9	12	10	9	9	8	9	9	4	8	4	5	-2	2	5.3	26	5.9
24Q	3	4	4	5	5	5	5	5	6	7	8	8	8	8	7	6	8	8	3	6	8	6	4	5	5.9	13	6.2
25	2	1	2	4	3	5	5	6	6	8	9	11	13	12	14	17	14	20	-4	-1	11	-4	1	11	6.9	96	6.0
26D	-34	-31	-38	-28	0	11	12	8	14	11	11	14	8	5	17	29	26	19	11	26	-1	-2	26	17	5.5	210	6.1
27D	-58	-7	-4	-5						4	8	5	5	12	-19	-19	-7	7	23							195	
28								8	9	5	7	9	14	11	7	8	11	-10	-8	8	-1	-4	-4	-4		152	
29	-8	-11	-4	-5	1	5	6	5	6	2	5	8	13	-1	17	-19	4	11	5	3	5	11	-34	-2	1.0	103	5.7
30	-28	0	-5	-1	5	20	11	8	5	5	7	6	8	5	-10	2	11	0	17	20	-22	11	-4	-1	2.9	152	5.9
31	0	2	3	4	7	8	6	4	7	4	7	-3	14	6	3	-16	0	3	8	8	3	-17	-25	-10	1.1	102	5.5
M	-4.4	-2.9	-1.5	0.2	3.0	5.3	5.8	5.5	6.3	7.0	8.5	8.8	10.5	9.3	7.6	4.6	8.1	7.9	8.6	7.2	2.3	0.0	-2.8	-2.5	4.4	88	5.7
QM	3.9	3.9	4.4	4.1	4.3	4.4	4.6	5.2	6.0	6.7	7.6	8.2	8.1	7.7	7.3	6.7	6.3	6.4	6.2	5.7	5.3	5.0	4.3	4.2			

NOVEMBER

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1	-15	-8	4	4	5	6	6	6	3	4	5	0	5	10	11	11	14	11	9	0	-1	2	4	5	4.2	55	5.7
2	5	5	5	5	5	4	4	5	5	6	8	6	6	6	9	2	11	6	5	5	4	3	2	3	5.2	55	6.2
3	-7	-7	-1	0	2	3	3	5	4	5	6	7	7	6	6	6	6	7	4	7	5	5	4	4	3.6	51	5.8
4D	4	4	4	5	11	13	14	8	14	11	7	8	5	17	10	5	5	5	5	4	0	3	-13	-2	6.1	61	5.2
5	-10	-3	5	5	6	6	7	6	6	7	7	7	7	6	6	8	8	5	8	12	-2	-19	-5	3	2.9	62	5.6
6	5	5	4	6	4	6	7	6	4	6	7	8	7	8	6	7	1	5	5	5	5	5	5	5	5.5	15	5.5
7	5	5	5	5	4	5	5	6	6	7	8	8	9	5	6	6	7	10	8	10	9	5	3	5	6.4	62	5.8
8	5	4	4	5	5	4	5	5	6	5	7	8	10	11	8	9	16	13	9	6	-5	2	4	-2	6.0	67	5.7
9	3	-14	-5	-7	0	3	4	5	5	6	8	8	10	11	11	11	10	0	6	7	7	6	0	0	3.9	87	6.6
10	4	3	4	5	5	5	11	12	8	8	11	10	9	9	9	11	9	6	6	5	5	4	3	-7	6.4	38	6.1
11	-2	1	2	2	3	4	5	5	5	5	5	6	7	7	7	6	6	5	5	5	5	5	5	5	4.5	16	4.8
12Q	5	-2	-2	0	4	5	5	5	6	7	8	8	7	7	6	5	5	6	5	4	5	4	4	5	4.7	15	5.6
13	5	5	5	5	5	5	5	5	5	5	6	7	8	8	8	7	7	7	7	8	9	5	0	7	6.0	23	5.7
14D	6	-10	-16	-8	-4	3	6	5	8	7	8	11	11	10	9	10	21	24	23	29	20	8	-1	11	7.9	116	6.1
15	-13	-9	-32	-13	-3	-2	0	8	5	6	4	3	7	8	9	9	7	7	6	5	4	2	-7	4	0.8	89	4.4
16	2	3	3	3	3	5	4	5	6	4	5	7	7	7	7	8	9	9	8	3	5	6	2	-1	5.0	42	5.3
17	5	-2	1	-2	3	4	6	5	7	8	10	11	9	8	6	6	6	2	5	5	2	5	2	2	4.7	29	5.0
18	1	4	2	4	3	5	5	5	7	7	8	7	6	7	7	4	5	7	6	6	-2	-7	0	2	4.1	83	5.3
19Q	2	4	0	2	3	2	2	4	5	6	8	7	7	7	7	6	7	8	6	5	4	4	3	2	4.6	10	5.2
20Q	4	4	3	3	4	4	4	5	6	6	7	7	7	7	6	6	6	0	3	2	2	2	3	6	4.5	16	5.1
21Q	4	4	5	5	4	4	4	5	5	6	7	7	7	6	6	7	7	6	5	5	4	4	0	1	5.0	10	5.3
22Q	3	4	4	5	4	4	4	5	5	6	7	8	8	8	8	7	7	8	6	5	5	5	4	5	5.6	6	5.6
23	5	5	5	5	5	5	5	5	6	6	8	9	14	15	10	11	15	8	19	12	-7	-16	-10	-17	5.1	73	6.0
24D	-4	-25	-22	-31	-10	-4	-1	8	4	10	11	2	17	11	15	11	-37	15	2	-1	4	-1	5	-14	-1.5	126	5.3
25D	-25	-25	-32	-7	-13	23	11	5	0	-4	5	2	-4	8	3	2	-28	32	8	-4	-4	-19	-57	-51	-7.3	181	5.4
26D	-54	-28	-1	1	2	2	3	0	0	1	3	2	5	3	5	-10	-17	-4	-7	23	-1	0	0	1	-3.0	164	5.3
27	0	-1	5	5	8	7	6	7	6	3	5																
28																											
29														6	6	1	8	5	5	-4	-19	-12	-7	-3			
30	5	0	-1	2	5	6	9	10	6	6	9	10	11	9	8	5	3	-1	6	5	1	0	0	-2	4.7	41	5.3
M	-1.9	-2.6	-1.5	0.5	2.6	5.0	5.3	5.7	5.5	5.7	7.1	6.8	7.7	8.3	7.7	6.3	3.9	7.6	6.5	6.2	2.3	0.4	-1.7	-0.8	3.9	57	5.5
QM	4.6	4.5	4.4	4.7	4.4	4.7	4.7	5.1	5.5	6.0	6.8	7.4	7.4	7.4	6.8	6.6	5.7	5.8	5.6	5.0	4.7	4.6	4.5	4.5			

DECEMBER

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1	-8	3	-3	-1	3	6	6	5	8	5	7	8	9	6	3	3	6	5	5	5	4	3	6	5	4.1	13	5.0
2	5	5	5	5	5	5	5	6	6	6	8	8	7	6	6	5	5	5	5	5	-2	-1	3	6	5.0	25	5.6
3D	6	8	7	8	11	9	8	8	7	12	15	8	-1	-11	26	64	49	43	24	17	14	-34	-25	-40	9.7	170	6.7
4D	-57	-75	-80	-37	-7	-20	-14	2	2	5	2	0	-1	4	11	18	8	5	6	11	6	5	1	0	-8.5	176	5.1
5	5	0	2	1	1	2	3	4	5	5	5	5	5	5	5	4	4	4	4	5	2	2	2	3	3.5	81	3.8
6	1	3	2	2	3	3	3	5	5	6	7	7	6	6	5	5	6	6	-4	8	8	5	2	-1	4.1	45	4.7
7	-3	-8	-3	2	5	7	6	6	7	8	8	8	8	9	11	11	5	8	5	4	3	1	2	2	4.6	38	5.2
8Q	3	4	4	5	5	5	5	5	5	5	6	6	10	8	7	6	6	5	5	5	5	5	5	5	5.4	9	5.1
9	4	4	5	5	5	5	6	6	6	7	8	8	9	11	10	9	10	5	5	5	3	1	2	3	5.9	45	6.2
10	3	3	5	5	6	6	6	7	6	6	8	9	9	8	8	7	8	6	5	5	4	0	0	3	5.5	23	5.8
11	6	5	5	5	5	6	6	5	7	7	6	7	8	8	8	8	7	6	4	4	3	3	2	2	5.5	12	5.8
12	6	5	5	5	5	5	5	5	6	7	7	8	8	8	11	17	19	13	11	12	20	-1	-11	-6	7.1	91	5.6
13D	-6	-4	-4	-4	1	5	5	7	5	4	8	10	11	11	13	23	2	3	12	11	3	1	-19	-1	4.0	112	5.5
14	4	5	5	6	8	6	6	7	5	8	9	9	7	6	7	2	-13	-1	7	2	2	6	11	-2	4.7	68	5.9
15	5	6	5	5	5	5	5	6	6	6	6	8	8	9	11	9	8	7	6	8	9	5	7	7	6.8	32	5.6
16Q	4	4	4	5	4	3	5	5	6	6	7	6	6	5	5	5	5	6	5	4	6	5	5	5	5.0	12	5.0
17Q	5	5	4	5	5	4	4	5	5	6	6	6	6	6	6	5	5	5	5	5	6	7	4	5	5.2	12	4.9
18Q	3	4	5	5	5	5	5	5	6	7	7	8	7	7	7	7	7	7	7	6	6	6	5	4	5.9	7	5.9
19	4	4	4	5	3	3	5	6	6	7	7	8	10	11	11	13	11	8	6	6	5	5	-6	0	5.9	39	5.9
20D	3	3	4	5	5	8	8	6	7	8	8	8	8	10	8	17	6	11	14	-19	5	8	8	-10	5.8	110	6.1
21D	-26	-28	-13	2	4	10	10	9	-4	5	11	6	0	7	-4	1	-1	-28	-16	11	5	-2	8	-10	-1.8	128	5.0
22	3	-1	4	3	6	5	6	6	6	4	5	8	6	9	3	5	-23	-2	6	-1	8	5	-2	-25	1.8	91	5.4
23	-1	1	1	4	3	5	8	4	5	5	4	6	5	7	6	-16	-22	2	1	3	-7	-37	-6	-10	-1.2	94	5.0
24	-3	-2	-2	6	5	7	8	7	8	6	7	8	3	5	7	10	9	-1	-4	2	2	-1	-1	1	3.6	59	4.7
25	1	-1	6	3	2	5	6	8	6	6	6	6	5	6	5	5	4	5	2	-2	-5	5	-2	0	3.4	49	4.9
26	3	1	3	5	5	6	8	11	7	4	5	6	6	6	5	8	6	5	0	2	0	-5	-8	-7	3.4	65	4.9
27	3	5	1	3	8	6	6	6	7	7	6	6	8	8	4	-1	0	3	5	1	6	2	0	-1	4.1	42	5.0
28	3	3	2	4	8	8	5	5	5	5	5	6	6	6	6	5	3	5	4	4	3	3	3	2	4.5	12	4.5
29	4	4	4	5	3	5	4	5	6	5	5	6	6	7	8	8	8	8	7	-1	10	7	-10	-10	4.3	89	5.8
30	2	5	3	4	4	5	5	6	7	5	7	8	8	8	8	7	6	5	2	2	7	4	2	4	5.2	22	4.9
31Q	4	3	3	3	4	3	4	4	5	5	6	7	7	7	7	7	7	6	7	5	5	5	4	3	5.0	9	4.7
M	-0.5	-0.9	-0.3	2.5	4.4	4.6	5.1	5.9	5.6	6.1	6.8	7.0	6.5	6.7	7.5	8.9	5.2	5.3	4.9	4.4	4.7	0.5	-0.3	-2.0	4.1	57	5.3
QM	4.2	4.4	4.4	4.6	5.0	4.9	5.1	5.3	5.6	6.1	6.2	6.7	6.8	6.7	6.3	5.9	5.5	5.3	4.9	5.0	4.7	4.7	4.4	4.2			

Tromsö. Declination. Storminess (+ W). Unit Gamma. *Gr. M. T.*

HOURLY MEAN VALUES.

OCTOBER 1930

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	DIURNAL SUM PS	NS	AS
1	-7	-5	-5	-5	6	7	17	11	-3	-2	-1	2	4	1	8	-19	5	-16	0	7	-8	-10	-10	-56	-3	68	147	215
2	-12	-55	-16	-8	-9	-6	-6	0	0	-1	2	18	17	20	20	-35	2	-2	-35	-1	0	-39	-62	-6	-9	79	293	372
3D	-15	-15	-14	-3	6	-12	2	13	7	5	-11	-32	8	0	-58	-20	-63	46	-8	-13	20	-54	-37	-76	-14	107	431	538
4	-46	-56	-33	-35	-21	-13	-5	-1	1	2	7	-5	3	11	12	-2	0	0	0	-40	-34	-1	42	-67	-12	78	359	437
5	-7	-13	-9	-5	0	3	12	3	13	0	11	2	12	32	4	0	16	13	22	-21	10	1	-15	-18	3	154	88	242
6	-52	-27	-23	-19	-12	12	0	0	7	-3	10	15	21	6	10	-2	-14	2	-3	-31	-50	-34	-58	-32	-12	82	360	442
7	-33	-30	-7	-2	0	-9	-2	-12	-12	0	2	6	11	11	-7	5	-12	0	7	-11	-25	-39	-118	-67	-14	42	386	428
8	-18	-21	-28	12	19	1	12	-2	-2	2	12	10	1	11	13	25	28	5	17	14	-10	-7	0	0	4	182	89	271
9	-1	-28	-38	-21	-17	-9	0	6	0	7	16	11	14	19	8	5	0	-35	-1	6	0	-53	-100	-4	-9	92	307	399
10	-2	0	-3	0	0	0	0	-4	-3	0	0	0	0	0	0	0	0	-8	4	-62	-51	-35	-6	-6	-7	4	180	184
11Q	-15	-25	-10	-11	-4	8	7	-1	0	0	5	10	18	10	11	15	16	7	15	6	-3	0	0	0	3	128	69	197
12	0	0	0	0	0	-1	-4	-4	0	3	10	5	8	4	5	0	-2	2	14	-24	-3	-12	1	0	0	52	50	102
13Q	0	0	0	0	0	0	0	0	0	3	10	13	14	5	4	0	0	0	0	-5	-17	-17	-15	-12	-1	49	66	115
14D	-8	-7	0	-7	-4	49	40	30	18	15	20	28	34	16	23	20	26	25	29	100	10	-49	-8	-77	14	483	160	643
15	-19	-25	-10	-1	1	9	-2	-4	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	-2	7	61	68
16Q	-7	-8	0	0	4	0	0	-3	-1	-1	0	0	0	0	-6	-6	0	0	0	-9	-28	-27	-14	0	-4	4	110	114
17D	1	0	0	0	5	3	-5	-6	20	9	-3	-25	-34	-7	20	-28	145	104	115	86	58	39	0	-100	17	605	208	813
18	-68	-23	-23	-30	-16	-14	-10	-12	-10	-4	3	18	19	20	34	26	15	6	13	21	-42	22	-10	-29	-4	197	291	488
19	32	-38	-23	-18	1	1	5	-2	-17	-21	0	6	5	0	-1	2	5	2	5	-4	-22	-51	-40	-39	-9	64	276	340
20	-48	-48	-58	-23	-19	-7	10	-2	-3	1	-2	5	14	8	10	-46	-45	4	35	36	-12	-11	-15	-39	-11	123	378	501
21	2	-24	-40	-12	-24	-1	2	8	-5	10	4	0	0	0	0	0	7	7	55	-20	-9	-9	-10	-1	-3	95	155	250
22	0	0	0	-2	3	-2	-3	0	0	0	0	0	0	0	2	3	0	-43	-32	13	36	2	-4	0	-1	58	86	144
23Q	-9	-3	-11	-5	-5	0	-3	0	2	5	3	2	3	0	0	0	6	5	-11	5	-10	-3	-23	-10	-2	41	93	134
24Q	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-16	-2	7	1	0	0	-1	8	24	32
25	-9	-10	-9	0	-4	0	0	0	0	0	0	7	15	15	22	34	23	44	-35	-24	18	-31	-12	21	3	199	134	333
26D	-128	-118	-143	-108	-14	21	25	8	25	11	10	18	-1	-10	32	74	65	39	15	66	-22	-26	70	41	-2	520	570	1090
27D	-208	-38	-28	-33					-7	11	-1	-12	-11	15	-88	-86	-45	2	55									
28								8	8	-8	-2	4	20	11	1	4	15	-65	-50	6	-22	-31	-30	-29				
29	-44	-54	-29	-31	-13	1	2	-2	-2	-16	-9	2	19	-28	35	-86	-7	15	-4	-7	-1	20	-129	-22	-16	94	484	578
30	-109	-14	-31	-19	1	51	20	8	-4	-6	-1	-8	1	-8	-57	-16	15	-20	36	48	-91	20	-29	-19	-10	200	432	632
31	-14	-9	-4	-1	8	11	2	-4	4	8	-1	-36	21	-3	-12	-76	-22	-10	6	8	-6	-75	-99	-49	-15	68	421	489
M	-28	-23	-20	-13	-4	3	4	1	1	1	3	2	8	5	1	-7	6	5	8	5	-10	-17	-24	-23	-4	134	231	365
MPS	1	0	0	0	2	6	5	3	4	3	5	6	9	7	9	7	13	11	14	14	5	4	4	2				
MNS	29	23	20	13	6	3	1	2	3	2	2	4	1	2	8	14	7	6	8	9	15	21	28	25				

NOVEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	PS	NS	AS
1	-68	-45	-4	-3	0	0	3	2	-9	-7	-7	-27	-10	1	22	10	26	24	13	-12	-23	-10	-1	0	-5	101	226	327
2	-1	0	-1	0	0	0	0	0	0	2	7	-4	-1	-2	8	-11	18	1	0	0	0	-1	-13	-7	0	36	41	77
3	-36	-35	-13	-9	-2	0	-2	2	0	0	0	0	0	0	-3	0	-1	1	-7	5	3	0	0	0	-4	11	108	119
4D	0	0	0	0	23	28	29	10	27	15	1	2	-8	34	15	0	0	0	0	0	-13	-3	-59	-24	3	184	107	291
5	-50	-28	0	0	2	0	5	1	-1	3	1	0	0	0	0	9	-46	-2	9	25	-22	-80	-31	-7	-9	55	267	322
6	0	0	0	5	-2	5	7	1	-5	0	0	0	0	0	0	1	-14	0	0	0	0	0	0	0	0	18	21	39
7	0	0	0	0	0	0	0	0	0	0	0	0	5	-6	0	0	1	12	6	14	13	1	-7	0	2	52	13	65
8	0	-2	-2	0	0	-2	0	-3	0	-4	0	2	6	12	2	10	34	25	14	5	-34	-9	-2	-25	1	110	83	193
9	-10	-65	-35	-39	-16	-7	-1	0	0	1	4	0	3	3	0	2	-1	-29	-5	0	2	1	-19	-15	-9	16	242	258
10	-2	-7	0	0	0	0	19	22	6	2	10	5	2	0	0	10	5	-1	0	0	0	-1	-8	-38	1	81	57	138
11	-21	-6	0	-2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	31	31
12Q	-1	-24	-22	-16	-1	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	-1	0	-2	0	0	-3	0	68	68
13	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5	12	-1	-14	9	1	28	15	43
14D	2	-50	-70	-42	-29	-4	3	0	7	-1	0	6	1	1	0	5	45	58	57	80	52	15	-12	30	6	362	208	570
15	-51	-41	-120	-57	-26	-9	-16	11	0	0	-7	-13	-1	0	0	2	-4	1	0	0	0	-5	-32	8	-12	22	382	404
16	-1	0	0	-4	-3	0	-3	0	6	-2	-3	2	-1	0	0	0	1	3	5	-8	0	3	-8	-19	-1	20	52	72
17	3	-21	-10	-26	-4	-2	2	0	5	8	12	14	7	5	0	0	0	12	-1	0	-10	1	-9	-9	-1	69	92	161
18	-13	0	-9	-1	-4	2	0	0	3	3	4	2	-1	0	3	-6	-2	6	4	5	-25	-39	-17	-10	-4	32	127	159
19Q	-9	-1	-13	-8	-5	-9	-9	-3	0	0	1	0	0	0	3	-2	5	7	0	0	-1	0	-4	-6	-2	16	70	86
20Q	0	0	-4	-3	0	0	0	0	0	2	2	0	0	0	0	0	0	-17	-8	-11	-5	-2	-3	5	-2	9	53	62
21Q	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	-1	-16	-9	-1	1	26	27
22Q	-5	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	-2	0	0	0	0	0	3	9	112
23	0	0	0	0	0	0	0	0	0	0	0	0	17	25	9	13	29	7	44	23	-40	-69	-48	-72	-3	167	231	398
24D	-29	-100	-90	-120	-49	-28	-18	11	-3	15	14	-18	32	13	30	15	-145	31	-12	-20	-1	-19	2	-64	-23	163	718	879
25D	-100	-100	-124	-40	-59	62	22	1	-16	-33	-6	-18	-38	3	-10	-15	-115	86	8	-30	-29	-80	-208	-190	-43	182	1211	1293
26D	-200	-100	-19	-12	-9	-8	-6	-14	-16	-15	-14	-18	-8	-12	-5	-55	-8	-34	-42	60	-19	-14	-15	-11	-28	60	726	786
27	-14	-19	-1	0	13	10	7	8	1	-8	-8																	
28																												
29														2	2	-12	10	0	0	-29	-79	-57	-38	-27				
30	1	-17	-18	-11	0	3	16	17	0	-1	-8	-10	14	10	8	0	-8	-20	6	1	-11	-14	-16	-22	-2	95	137	232
M	-22	-24	-20	-14	-6	1	2	2	0	-1	1	-2	1	3	3	-1	-6	6	3	4	-8	-14	-21	-18	-5	70	197	267
MPS	0	0	0	0	1	4	4	3	2	2	2	1	3	4	4	3	6	10	6	8	3	1	0	2				
MNS	22	24	20	14	7	3	2	1	2	3	1	3	2	1	1	4	12	4	3	4	11	15	21	20				

DECEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	PS	NS	AS
1	-40	-4	-26	-20	-6	0	0	0	8	0	5	7	11	-1	-9	-9	5	0	0	0	-2	-7	6	0	-3	42	124	166
2	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	-26	-21	-10	3	-2	7	57	64
3D	0	5	1	0	9	4	2	0	-3	14	22	-5	-35	-68	61	194	146	128	65	40	31	-130	-100	-150	10	722	491	1213
4D	-208	-270	-284	-140	-40	-86	-66	-12	-13	-5	-16	-22	-28	-9	15	42	11	0	2	21	7	4	-6	-7	-46	102	1212	1314
5	10	-8	1	-3	-4	-2	0	0	0	0	0	0	0	0	0	0	2	-3	-2	0	-7	-6	-4	-1	-1	13	42	55
6	-5	0	-3	-3	-1	0	-2	0	0	0	0	0	0	0	0	0	0	2	-30	10	11	2	-9	-17	-2	25	70	95
7	-26	-40	-29	-9	0	6	2	0	5	5	5	0	0	5	17	18	0	10	0	-1	-2	-7	-4	0	-2	72	118	190
8Q	0	0	0	0	0	0	0	0	0	0	2	0	10	0	0	0	0	0	0	0	0	0	0	0	1	12	1	12
9	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	1	9	-6	-3	0	-6	-11	-6	-1	-1	20	33	53
10	-6	-5	2	0	0	0	0	0	0	0	6	5	8	0	0	0	3	0	0	0	-2	-12	-11	0	-1	22	36	58
11	7	0	0	0	0	2	0	-3	4	4	0	0	2	0	0	0	0	0	-5	-2	-6	-7	-10	-7	-1	19	40	59
12	4	0	0	0	0	0	0	0	0	0	0	0	0	3	14	36	45	27	20	23	51	-19	-54	-36	5	223	109	332
13D	-36	-28	-29	-30	-13	-1	-1	6	-3	-7	4	11	12	13	21	56	-12	-6	25	20	-7	-11	-79	-18	-5	168	281	449
14	-1	0	1	3	9	3	2	3	-6	2	5	5	-1	-6	0	-15	-65	-22	7	-10	-10	6	21	-21	-4	67	157	224
15	0	0	0	0	0	0	0	0	1	-2	-1	0	4	7	12	11	9	6	5	11	16	1	9	10	4	103	3	106
16Q	0	0	0	0	-3	-5	-1	0	0	0	0	0	0	0	0	0	0	3	0	-1	5	0	0	0	0	8	10	18
17Q	0	0	0	1	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	7	-2	0	1	15	2	17
18Q	-4	0	0	0	0	0	0	0	0	2	2	2	-2	-1	0	0	2	2	4	2	0	1	0	-2	0	17	9	26
19	-2	-2	-3	1	-7	-5	-2	0	2	2	0	0	8	12	15	21	14	5	0	0	0	-1	-36	-15	0	80	73	153
20D	-5	-4	-2	0	0	9	8	1	3	3	5	0	0	10	2	34	-1	14	25	-83	-1	10	11	-50	-1	135	146	281
21D	-104	-109	-58	-9	-1	19	18	14	-32	-3	16	0	-21	5	-32	-13	-21	-111	-71	20	0	-25	11	-51	-23	103	661	764
22	-7	-19	0	-6	4	1	5	2	0	-5	-4	2	-1	12	-7	-1	-96	-27	2	-20	10	0	-21	-100	-12	38	313	351
23	-19	-12	-10	-2	-4	0	10	-3	-2	-3	-6	-3	-4	4	1	-71	-91	-13	-11	-7	-40	-140	-37	-51	-21	15	529	544
24	-26	-31	-20	3	1	8	10	7	9	2	6	7	-9	-3	6	17	15	-20	-30	-9	-9	-19	-18	-10	-4	91	194	285
25	-10	-19	4	-4	-10	1	5	12	4	1	3	0	-4	-1	-2	0	-3	-1	-11	-24	-34	1	-20	-13	-5	31	156	187
26	-6	-10	-5	0	0	2	9	19	6	-4	-2	0	0	3	-1	10	3	1	-14	-8	-13	-33	-40	-37	-5	53	173	226
27	-2	0	-10	-4	10	0	0	0	5	3	0	0	6	7	-4	-20	-17	-6	-1	-10	6	-9	-13	-18	-3	37	115	152
28	-2	-4	-7	0	14	12	0	0	0	0	0	0	0	0	0	0	-8	0	0	0	-2	0	-3	-6	0	26	32	58
29	0	0	0	0	-4	0	-3	0	3	-2	0	0	0	0	0	0	2	0	0	-26	14	6	-50	-50	-5	25	135	160
30	-7	3	-5	0	-2	0	0	0	6	0	6	7	3	0	1	2	0	0	9	10	9	-1	-8	-2	1	56	25	81
31Q	0	-5	-6	-2	0	-5	0	0	0	0	0	0	0	0	0	2	4	2	6	-2	0	0	-1	-5	-1	14	26	40
M	-16	-18	-16	-7	-2	-1	0	2	0	0	2	1	-1	0	4	10	-1	0	0	-2	0	-14	-16	-21	-4	76	173	249
MPS	1	0	0	0	1	2	2	2	2	1	3	1	2	3	6	14	9	6	5	5	5	1	2	0				
MNS	17	18	16	7	3	3	2	0	2	1	1	0	3	3	2	4	10	8	5	7	5	15	18	21				

Tromsö. **Horizontal Intensity. H = 11500 + Tabular Quantities expressed in Gamma.** *Gr. M. T.*

HOURLY MEAN VALUES

JANUARY 1930

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	-90	--40	-160	95	121	126	124	119	118	118	138	140	175													(470)	
2																											
3D													195	245	225	185	301	235	120	35	35	-30	-55	5		(650)	
4D	65	45	80	50	-10	65	115	110	125	178	168	170		295	340	245	130	185	95	10	185	-280	-90	-145	88	1000	105
5D	-130	-360	-280	30	80	0	45	82	105	130	195	208	250	185	120	80	180	60	-30	-240	100	5	-105	-15	30	790	105
6D	45	40	-5	-152	-120	75	105	95	95	110					115	110	30	170	105	-120	-240	-330	-60	-70	0	900	107
7D	-65	-285	-120	40	50	70	120	100	95	110		190	140	145	220	190	225	115	15	85	65	-150	-175	-270	40	130	103
8	-100	-65	55	110	110	100	60	85	95	100	125			130	155	195	160	160	130	115	100	-125	-65	60	77	530	106
9	45	-5	98	108	115	110	115	115	100	102	98	98	108	108	108	110	106	107	109	115	112	95	72	45	96	290	106
10	45	110	108	115	114	111	108	104	98	91	96	101	105	104	115	122	115	110	112	130	95	110	101	98	105	50	106
11Q	105	108	107	105	108	108	107	103	101	100	100	101	97	100	101	105	108	108	111	115	108	107	100	101	105	28	105
12Q	100	98	98	102	104	106	110	109	105	100	100	100	100	105	115	135	115	100	105	108	108	107	92	93	105	76	105
13	75	62	95	110	105	105	105	105	110	108	108	102	100	105	108	112	115	205	175	155	145	125	105	110	115	180	106
14Q	50	85	85	100	110	114	115	102	98	96			110	108	104	108	109	118	145	165	125	108	102	110	108	150	107
15	107	108	107	108	107	106	109	107	105	102	102	102	104	106	103	106	112	160	190	165	85	85	105	-65	105	490	104
16	65	105	105	105	102	102	100	105	106	102	102	105	105	102	108	115	128	122	132	128	150	115	108	101	109	82	106
17	100	95	100	108	108	108	105	104	100	101	100	105	108	108	155	335	425	255	120	120	150	-80	75	115	130	670	106
18	95	30	116	180	135	110	110	102	100	98	100	108	115	109	110	120	115	116	155	160	160	115	90	55	113	280	106
19	-140	-45	-35	20	25	115	118	102	110	110	115				245	215	350	232	165	160	95	120	75	-155	95	710	106
20	-30	35	25	105	55	90	105	110	110	110	108	110	118	115	132	190	255	210	145	95	45	-65	30	55	94	620	108
21	5	95	-30	-5	25	95	110	120	110	100	105	108	115	122	142	145	180	215	178	115	75	60	60	95	85	680	106
22	55	85	38	100	112	115	110	108	110	98	95	100	120	115	110	145	145	175	170	85	135	55	5	85	103	295	107
23	10	-11	115	118	110	112	108	105	98	105	110	102	106	130	115	132	145	145	155	170	170	151	102	62	111	270	107
24	130	65	55	85	128	115	108	103	101	102	100	98	102	108	109	121	172	195	195	150	165	130	80	90	117	185	107
25	30	65	70	70	82	117	115	100	91	93	115	98	110	120	120	145	160	116	110	115	111	107	105	101	103	165	107
26Q	88	68	98	107	107	105	105	102	102	100	98	100	107	107	108	109	110	110	111	110	110	110	109	108	104	70	107
27Q	107	107	107	108	109	110	108	105	103	102	100	100	103	107	110	110	110	110	110	112	110	65	106	105	105	90	107
28	108	104	110	110	112	114	115	112	110	107	107	102	103	109	112	108	114	145	180	95	95	41	70	98	108	215	109
29	115	105	92	82	91	93	90	85	105	128	120	115	150	130	115	105	110	110	118	80	85	105	109	98	106	150	108
30	90	95	92	80	90	105	85	103	115	92	112	110	165	240	335	220	110	102	91	93	48	-140	-43	-25	99	720	107
31	-45	91	100	95	100	92	95	98	115	95	85	100	90	107	102	105	127	126	118	75	-110	70	52	65	81	360	108
M	35	21	49	82	86	100	104	103	104	107	112	111	123	132	143	146	158	149	125	93	87	27	43	39	95	414	106
QM	106	107	107	108	109	108	107	105	104	102	101	99	101	104	107	109	110	110	109	111	109	107	106	105			

FEBRUARY

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	55	-22	-45	-85	35	105	100	85	130	135	138	140	125	180	170	155	162	150	130	132	98	68	-60	-145	81	490	106
2	-125	-58	-45	80	108	120	112	110	108	80	85	120	115	112	101	110	135	155	120	-200	-100	35	-170	-125	41	530	104
3	-140	45	80	110	124	115	115	110	102	98	100	100	145	245	170	132	155	180	72	70	-170	-100	46	-6	79	660	104
4	95	72	85	98	107	109	100	102	111	114	120	110	121	118	116	114	111	122	138	133	50	-160	5	85	90	450	104
5	82	30	60	100	118	118	111	108	98	98	95	112		165	138	135	103	108	100	103	100	102	108	98	105	145	104
6Q	99	98	100	105	107	106	106	96	93	90	86	88	91	99	108	135	160	135	85	85	106	99	72	90	102	130	104
7	108	103	106	106	110	110	108	106	92	90	90	93	106	105	110	118	138	118	131	80	55	112	104	104	104	300	105
8Q	112	109	110	110	111	111	107	101	110	110	92	98	110	125	165	210	260	240	210	140	95	70	35	40	123	320	106
9Q	45	70	98	111	115	110	110	105	99	96	90	90			112	115	121	118	112	114	108	110	87	-3	97	152	106
10Q	81	108	110	111	111	112	111	110	106	100	110	115	115	122	163	128	116	118	108	107	100	68	90	91	109	150	107
11	70	68	-12	40	95	115	113	109	98	96	94	96	98	103	109	110	113	110	110	110	110	108	98	-40	88	180	107
12D	-85	-45	72	111	118	111	55	81	85	107	122	125	121	240	283	280	300	268	172	168	142	-250	-550	-210	76	1000	107
13D	90	-340	-165	22	102	140	145	130	85	110	140	195	180	185	250	240	160	80	-200	-300	-150	36	11	-105	43	900	107
14D	-265	-155	-125	130	150	105	138	130	128	110	110	170	155	285	225	155	155	70	-36	-50	-230	-30	70	-75	55	850	107
15D	-370	-180	-35	28	40	52	110	80	160	105	145	175	210	205	320	90	190	155	20	-75	-30	-15	70	-15	60	650	107
16D	-400	-345	-310	-250	-80	-70	110	140	128	180	130	158	128	195	360	185	220	155	-40	25	-230	-150	-240	-230	-10	900	106
17	-200	-10	-20	-75	-42	65	85	155	90	110	115	125	138	145	222	195	185	182	155	135	0	80	50	91	82	550	106
18	90	105	72	28	20	28	100	135	140	110	125	115	195	200	245	190	175	110	20	168	180	65	-115	-122	99	510	110
19	68	105	28	65	-130	60	98	148	125	105	102	105	90	90	112	230	260	260	190	15	-100	-112	35	75	84	510	105
20	40	50	-62	50	110	110	108	106	104	100	95	108	90	90	95	115	195	225	260	190	30	-30	20	-225	82	690	106
21	100	58	50	110	110	85	70	115	115	92	94	94	95	98	120	138	175	160	135	155	135	90	-115	10	95	370	106
22Q	45	90	88	68	78	100	108	105	105	95	90	90	105	120	120	104	109	116	138	155	150	80	-30	-65	90	350	106
23	-60	-80	80	118	111	108	110	100	110	108	98	118	125	145	165	195	195	162	172	150	82	140	115	114	112	440	106
24	85	40	110	117	111	105	105	112	105	105	115	98	105	112	158	168	180	141	128	-90	88	92	111	110	105	450	107
25	95	95	90	12	-20	40	165	125	105	130	175	195	228	195	193	215	162	-130	-30	-95	-40	-510	-530	-230	27	1020	107
26	-360	-110	115	118	112	130	95	110	98	122	95	90	95	112	105	150	202	220	125	135	65	32	15	-15	77	840	105
27	32	30	30	85	55	80	105	90	92	98	105	98	110	112	135	145	150	132	130	40	0	61	-165	-320	60	660	106
28	20	80	40			110	101	100	98	120	120	115	115	245	380	270	240	221	105	95	10	45	-330	-85	101	960	103
M	-21	1	24	60	74	93	107	111	108	107	110	119	127	154	177	162	172	146	99	61	23	5	-43	-40	81	541	106
QM	107	108	108	109	110	109	108	105	103	97	94	93	96	101	106	109	112	111	110	110	109	108	106	106			

MARCH

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1D	-180	-65	5	72	100	122	110	120	160	160	172	150	352	180	260	245	235	230	142	-190	-350	-55	-260	-180	64	1020	105
2D	-230	-50	15	78	105	120	110	115	165	162	175	155	185	145	280	170	205	115	85	115	20	-215	-130	-115	75	730	105
3	-202	-130	43	116	111	105	111	101	122	115	107	125	150	147	130	148	119	151	116	140	120	-230	-98	-15	67	650	104
4	2	151	65	92	98								131	142	162	165	130	116	123	117	103	96	103	101	113	470	105
5Q	104	104	106	105	106	106	108	100	93	91	98	101	85	90	94	106	162	111	117	111	109	107	103	103	103	35	102
6	106	106	106	106	106	104	100	95	88	79	79	89	88	97	104	108	107	109	111	108	107	107	110	109	102	40	102
7Q	108	108	109	108	108	107	103	96	90			88	90	90	94	97	104	109	109	109	105	106	105	107	102	21	102
8Q	106	105	107	107	106	105	100	97	91	86	82			99	99	102	101	102	103	108	108	108	108	109	102	25	102
9Q	110	109	109								90	91	94	99	108	113	108	107	109	110	111	110	108	109	106	31	106
10Q	109	110	110	110	110	111	104	99	91	84	83	94	102	105	109	110	113	115	118	127	105	91	65	47	101	95	106
11	95	114	113	110	109	107	104	101	98	94	95	95	99	130	155	114	131	120	130	178	-11	32	40	-31	99	372	106
12D	2	-13	-60	-215	-455	-240	25	0	95	130	130	155	32	275	182	202	165	135	-85	-20	-109	-145	-202	-315	-27	920	105
13D	-95	-265	-350	-185	-62	60	-72	122	130	135	122	138	306	280	352	318	330	115	110	-155	-140	-405	-460	-240	4	1050	104
14D	-215	-200	-405	-42	85	215	125	165	145	115	138	111	192	245	305	215	195	187	5	-170	-175	5	35	-175	46	920	103
15	-680	-520	-285	-75	70	45	105	125	95	115	155	190	322	330	335	317	235	75	145	117	87	7	-2	-280	43	1440	101
16	-225	-42	-62	35	38	90	68	67	70	105	102	185	225	140	135	232	202	275	42	-370	-292	-55	-45	-27	37	780	102
17	-215	-55	85	20	-12	93	130	152	115	117	148		148	157	188	235	190	87	168	-110	-335	-215	35	-65	44	670	100
18	-30	-390	-125	15	108	122	120	111	93	87	101	95	102	116	169	235	330	238	-550	-105	-25	-288	-135	-122	11	950	100
19	-280	-185	85	91	122	118	88	147	110	111	142	190	245	265	215	135	99	135	118	70	-52	-120	-125	-60	69	665	99
20	-75	-90	-82	-5	71	65	102	100	97	98	105	105	152	185	275	280	222	155	120	-2	-15	-102	-240	-230	54	820	99
21	8	18	-5	60	65	118	101	111	115	95	82	113	118	171	158	181	241	195	200	168	155	80	65	-101	105	480	99
22	-5	5	-425	-330	-170	-20	15	95	82	95	135	125	105	105	130	195	195	141	143	55	30	-245	85	118	27	765	100
23	107	98	108	100	109	110	107	98	96	86	87	80	165	155	129	121	130	168	105	108	102	-10	-146	-39	91	445	98
24	-39	-5	46	21	70	102	83	110	215	171	112	118	168	335	333	278	186	180	55	115	120	108	85	65	126	490	96
25	66	38	86	97	93	73	92	82	80	79	82	85		95	190	207	190	172	135	141	102	-62	-55	-280	78	160	95
26	-15	-12	55	55	62	70	101	91	85	90	98	102	155	170	202	151	190	225	138	42	125	110	92	91	103	260	94
27	88	25	80	115	115	110	100	71	70	130	148	200	190	197	195	220	210	235	55	-95	-100	-125	-115	10	89	530	93
28	-110	-102	65	95	100	98	70	120	75	85	151	206	185	215	245	175	162	111	105	35	-230	-310	-135	-120	55	960	91
29	-205	-335	-120	50	96	105	102	119	98	105	145	275		212	280	282	195	140	130	75	-60	-135	-90	-45	62	820	93
30	-105	30	35	85	98	110	90	105	100	102			125	148	128	125	120	152	150	115	-90	-90	-5	12	70	450	94
31	45	35	30	115	118	109	98	85	79	79	95	118	171	145	128	119	116	120	122	111	20	-18	-12	10	85	280	91
M	-60	-42	-12	37	59	88	90	103	105	107	114	133	160	171	189	185	173	141	86	37	-12	-57	-36	-45	70	559	100
QM	104	104	106	106	104	103	97	92	83	80	80	82	89	93	97	102	107	110	110	111	110	107	105	102			

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

HOURLY MEAN VALUES.

JANUARY 1930

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	DIURNAL SUM			C
																										PS	NS	AS	
1	-195	-246	-266	-12	13	18	16	14	15	16	37	40	76																1
2																													
3D													96	144	120	78	203	127	11	-74	-73	-137	-160	-99					1
4D	-40	-61	-26	-57	-118	-43	7	6	22	76	67	70		194	235	137	23	77	-14	-99	-23	-387	-195	-249	-17	915	1312	2227	2
5D	-235	-436	-386	-77	-28	-108	-63	-22	2	28	94	108	151	84	15	-27	73	-48	-139	-349	-8	-102	-210	-119	-75	555	2360	2915	1
6D	-60	-66	-111	-259	-228	-33	-3	-9	-8	8						3	-77	62	-4	-229	-348	-437	-165	-174	-113	73	4211	2284	2
7D	-170	-391	-226	-67	-58	-38	12	-4	-8	8		91	41	44	115	83	118	7	-94	-24	-43	-257	-280	-374	-63	589	2032	2621	2
8	-205	-171	-51	3	2	-8	-48	-19	-8	-2	24			29	49	88	53	52	21	6	-8	-232	-170	-44	-29	327	966	1293	1
9	-60	-111	-9	1	7	2	7	11	-3	0	-3	-1	9	7	0	0	0	0	0	5	2	-13	-34	-59	-10	51	293	344	0
10	-61	3	0	0	0	0	0	0	-2	-9	-4	-2	6	2	9	13	8	2	2	19	-14	2	-4	0	-1	66	96	152	0
11Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12Q	0	-9	-9	0	0	0	0	0	0	0	0	0	0	2	9	28	7	-8	0	0	0	0	-13	-11	0	46	50	96	0
13	-30	-45	-12	3	-2	-2	-1	0	6	6	7	1	0	0	0	4	6	96	65	45	33	18	0	6	9	296	92	388	0
14Q	-56	-22	-22	-7	3	7	9	-3	-6	-6			6	2	-4	-1	0	9	35	55	17	1	3	6	1	153	127	280	0
15	0	0	0	0	0	0	3	2	1	-1	0	0	0	0	0	-3	3	51	80	55	23	-22	-1	-170	1	218	197	415	1
16	-42	-2	-2	-3	-6	-5	-6	0	3	0	0	4	0	0	0	6	19	13	22	18	42	8	2	-4	3	137	70	207	0
17	-7	-12	-7	0	0	0	0	0	0	0	0	4	4	3	47	226	316	146	10	9	42	-187	-31	10	24	817	244	1061	1
18	-12	-77	18	72	27	2	5	-2	-1	-2	0	7	11	4	2	11	6	7	45	49	52	8	-16	-50	7	316	160	476	0
19	-247	-152	-142	-88	-83	7	13	-2	9	10	15				137	116	241	122	55	49	-13	13	-31	-261	-11	787	1019	1806	1
20	-137	-72	-82	-3	-53	-18	0	6	9	10	8	9	14	10	24	81	116	100	35	-16	-65	-172	-76	-51	-14	422	745	1167	1
21	-102	-302	-137	-113	-83	-13	5	14	9	0	5	7	11	17	34	36	70	105	68	3	-35	-47	-47	-11	-21	384	890	1274	1
22	-52	-22	-69	-8	4	7	5	4	-1	-2	-5	-1	17	10	2	36	35	65	60	-27	25	-52	-102	-21	-4	270	362	632	0
23	-117	-96	18	2	2	4	3	1	-3	5	10	-1	3	24	6	23	35	35	45	58	60	43	-5	-44	4	375	266	641	0
24	23	-42	-52	-23	19	7	3	-1	0	2	0	-3	0	0	0	12	62	85	85	38	55	-23	-27	-16	10	414	164	578	0
25	-77	-42	-37	-38	-27	9	10	-4	-10	-7	15	-3	5	13	12	36	50	6	0	0	0	0	-2	-5	-4	156	252	408	0
26Q	-19	-39	-9	-1	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	70	70	0
27Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-43	0	0	-2	0	43	43	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	4	35	70	-16	-15	-67	-36	-7	-1	109	142	251	0
29	7	-3	-18	-28	-21	-20	-23	-25	-4	-23	17	15	49	23	4	-3	0	0	8	-31	-25	-3	3	-8	-2	149	212	361	0
30	18	-13	-18	-31	-22	-8	-27	-6	7	-12	10	11	65	134	226	111	0	-8	-19	-18	-62	-248	-150	-131	-8	582	773	1355	1
31	-153	-18	-10	-16	-12	-21	-17	-9	9	-9	-17	2	-9	2	-6	-5	17	16	8	-36	-220	-38	-55	-41	-27	54	692	746	0
M	-71	-86	-58	-26	-23	-8	-3	-2	0	5	11	12	22	28	36	37	48	39	16	-18	-22	-80	-63	-66	-11	293	565	858	0.5
MPS	2	0	0	3	3	2	3	2	3	6	11	14	22	28	36	38	39	41	25	34	12	4	0	1					
MNS	73	86	58	29	26	10	6	4	3	1	0	2	0	0	0	1	9	2	9	52	34	84	63	67					

FEBRUARY

1	-48	-125	-149	-189	-70	-1	-5	-19	27	35	39	43	26	72	64	48	53	39	20	22	-10	-49	-166	-250	-25	488	1081	1569	1
2	-227	-160	-149	-24	3	14	7	7	5	-20	-14	23	18	10	5	3	26	44	10	-310	-208	-72	-276	-230	-63	175	1690	1865	1
3	-241	-56	-23	6	19	9	10	8	-1	-2	2	4	49	144	65	25	45	69	-38	-40	-278	-207	-60	-111	-25	455	1057	1512	1
4	-5	-28	-17	-7	1	3	-6	1	9	14	22	15	27	8	11	6	1	11	28	24	-57	-276	-100	-19	-14	181	506	687	1
5	-17	-69	-41	-5	11	12	5	8	-4	-2	-2	18		85	33	27	-7	-3	-10	-6	-7	-4	3	-6	1	202	183	385	0
6Q	0	0	0	0	0	0	0	0	-8	-10	-11	-5	0	0	3	26	48	23	-25	-24	-1	-7	-32	-14	-2	100	137	237	0
7	0	0	0	0	0	0	0	0	-9	-8	-6	1	10	6	4	7	24	4	20	-29	-52	6	0	0	-1	82	104	186	0
8Q	4	0	0	0	0	0	0	0	0	0	-4	7	14	25	59	97	143	124	99	31	-12	-36	-70	-64	17	603	186	789	0
9Q	-62	-39	-12	1	4	0	0	0	0	0	0	0			2	0	0	0	0	0	0	-7	-18	-107	-11	7	246	253	0
10Q	-29	-1	0	0	0	0	0	0	0	0	18	22	18	20	55	16	0	0	0	0	-7	-39	-16	-14	2	149	106	255	0
11	-38	-41	-122	-70	-16	3	0	0	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	-145	-19	3	448	451	0
12D	-193	-154	-38	-1	7	0	-58	-28	-21	11	28	29	23	137	174	170	187	158	62	58	32	-358	-656	-315	-31	1076	1822	2898	2
13D	-18	-449	-295	-90	-9	28	33	21	-21	14	46	100	82	82	141	130	48	-30	-310	-410	-260	-72	-95	-210	-64	704	2264	2974	2
14D	-373	-264	-235	18	39	-6	26	22	22	14	17	75	58	183	117	45	43	-40	-146	-160	-340	-138	-36	-180	-52	679	1918	2597	2
15D	-478	-289	-145	-84	-71	-59	-1	-28	54	9	52	81	113	103	212	-20	78	45	-90	-185	-140	-123	-37	-121	-47	747	1871	2618	1
16D	-508	-454	-420	-362	-191	-181	-1	33	23	84	38	64	31	93	253	76	108	45	-150	-85	-340	-258	-347	-336	-116	848	3633	4481	2
17	-308	-119	-130	-187	-153	-45	-25	48	-15	15	23	31	41	44	115	86	73	72	45	25	-110	-29	-57	-15	-24	618	1193	1811	1
18	-18	-4	-38	-94	-91	-82	-10	29	-35	15	33	22	98	99	138	81	63	0	-90	58	70	-44	-233	-238	-11	706	967	1673	1
19	-40	-4	-82	-47	-32	-50	-11	42	20	10	11	12	-6	-11	5	128	158	150	80	-95	-210	-221	-73	-32	-21	616	1123	1739	1
20	-68	-59	-172	-62	-1	0	-1	0	-1	5	4	16	-6	-11	-11	7	83	115	150	80	-80	-139	-88	-332	-24	460	1031	1491	1
21	-8	-51	-60	-2	-1	-25	-38	10	10	-3	3	3	-1	-2	14	30	63	50	25	45	25	-19	-223	-97	-11	278	530	808	0
22Q	-63	-19	-22	-44	-33	-10	0	0	0	0	0	0	9	20	14	4	-3	6	28	45	40	29	-138	-173	-16	166	560	726	0
23	-168	-189	-30	6	0	-1	2	-4	6	13	7	28	19	45	59	87	83	52	62	40	-28	31	7	6	6	553	450	973	1
24	-23	-69	0	0	0	-4	-2	9	2	9	22	8	10	12	52	60	68	31	18	-200	-22	-17	0	0	-2	301	373	638	1
25	-13	-14	-20	101	-131	-68	58	23	5	34	79	105	133	95	88	107	50	-240	-140	-205	-150	-619	-639	-339	-80	820	2737	3557	2
26	-468	-219	5	7	2	28	-11	9	0	25	0	0	0	12	0	43	90	110	15	25	-45	-77	-94	-124	-28	371	1038	1409	2
27	-76	-79	-80	-36	-55	-28	0	-11	-6	0	7	0	13	12	30	38	38	22	19	-70	-110	-48	-274	-429	-47	179	1302	1481	1
28	-88	-29	-70			2	-3	-1	0	22	22	17	18	145	275	163	129	111	-6	-15	-100	-64	-439	-194	-4	904	1009	1913	2
M	-128	-107	-84	-49	-36	-16	-1	6	5	10	16	26	31	53	71	53	60	35	-11	-49	-86	-103	-149	-146	-26	445	1051	1499	0.9
MPS	0	0	0	5	3	4	5	10	7	12	17	26	29	53	71	54	60	44	24	16	5	1	0	0					
MNS	128	107	84	54	39	20	6	3	2	2	1	0	2	0	0	1	0	9	35	66	91	102	149	146					

MARCH

1D	-286	-171	-103	-38	-6	16	5	20	62	64	80	58	256	80	153	138	123	116	28	-303	-461	-165	-363	-286	-41	1197	2182	3379	2
2D	-336	-156	-93	-30	-1	14	5	15	68	69	84	58	89	46	172	64	95	2	-28	4	-90	-323	-234	-222	-30	785	1513	2298	1
3	-308	-236	-65	8	-5	-1	6	1	26	23	17	32	54	48	29	44	10	40	4	31	11	-338	-202	-122	-37	384	1277	1661	1
4	-104	45	-43	-16	-8								36	44	62	82	22	6	11	8	-5	-11	0	0	8	316	187	503	1
5Q	0	0	0	-2	0	0	0	0	0	1	12	11	-10	-8	-5	4	-5	2	6	3	1	0	0	0	1	40	25	65	0
6	0	0	0	0	0	0	0	0	-4	-9	-7	0	-6	0	5	6	0	0	0	0	-1	0	6	0	0	17	10	27	0
7Q	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	2	2	0
8Q	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9Q	0	0	0								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	-6	-19	-43	-61	-5	15	129	144	0
11	-13	5	0	0	0	0	0	0	0	0	0	3	-1	29	52	4	21	8	16	64	-123	-78	-69	-77	-7	197	361	558	0
12D	-105	-121	-170	-325	-563	-347	-78	-98	1	43	42	65	-67	175	79	93	-5	-247	-199	-134	-221	-255	-311	-423	-132	498	3669	4167	2
13D	-201	-373	-459	-293	-169	-46	-175	24	37	59	35	49	208	181	250	210	221	3	-4	-269	-252	-514	-568	-347	-100	1267	3670	4937	2
14D	-321	-307	-513	-149	-21	110	23	67	53	29	52	24	95	147	203	108	87	75	-109	-285	-287	-104	-73	-282	-57	1073	2451	3524	2
15	-785	-626	-392	-181	-35	-59	4	28	5	32	70	104	226	233	234	210	127	-37	31	2	-25	-101	-109	-386	-58	1306	2736	4042	2
16	-329	-147	-168	-71	-67	-14	-32	-29	-18	22	18	101	130	43	35	126	95	163	-72	-484	-404	-163	-152	-132	-65	733	2282	3015	1
17	-319	-160	-21	-86	-117	-10	31	56	28	36	65		55	62	89	130	83	-25	54	-224	-447	-323	-72	-169	-56	689	1973	2662	1
18	-133	-494	-230	-90	4	19	22	16	7	7	20	13	11	22	71	131	224	126	-664	-218	-137	-396	-241	-225	-89	693	2828	3521	2
19	-383	-289	-19	-14	18	15	-9	53	25	32	62	109	155	172	118	32	-7	24	5	-33	-164	-227	-230	-162	-30	820	1537	2357	1
20	-177	-192	-186	-110	-32	-37	6	7	13	20	26	25	63	93	179	178	117	44	7	-115	-126	-209	-344	-332	-45	778	1860	2638	2
21	-94	-84	-109	-45	-38	17	5	19	33	18	4	34	30	79	62	80	136	84	88	56	45	-27	-39	-203	6	790	639	1429	1
22	-106	-96	-529	-435	-273	-120	-80	4	0	19	58	37	18	14	36	95	41	30	32	-57	-80	-351	-19	17	-73	401	2146	2547	1
23	6	-3	4	-5	6	11	7	9	16	11	11	3	79	66	35	22	26	58	-5	-4	-8	-116	-249	-140	-7	366	530	896	1
24	-139	-106	-58	-83	-33	4	-10	23	138	98	38	43	83	248	240	180	83	71	-54	4	11	3	-18	-35	30	1267	537	1804	1
25	-34	-63	-17	-7	-9	-24	0	-3	4	8	10	12		10	98	110	89	260	27	30	7	-167	-157	-380	-17	469	861	1330	1
26	-115	-113	-48	-49	-40	-27	10	8	11	21	28	31	74	87	112	55	91	119	30	-69	15	5	-10	-9	9	697	480	1177	1
27	-12	-76	-23	11	13	13	10	-10	-1	63	80	131	111	116	106	125	112	131	-53	-206	-208	-230	-217	-90	-4	1022	1126	2148	0
28	-210	-203	-38	-9	-1	2	19	41	6	19	85	139	108	170	148	81	65	8	-2	-76	-337	-414	-237	-220	-36	891	1747	2638	0
29	-305	-436	-223	-54	-5	9	14	41	31	40	81	209		133	184	189	99	38	23	-36	-167	-239	-192	-145	-31	1091	1802	2893	2
30	-205	-71	-68	-19	-3	14	3	28	35	32			52	71	43	33	24	51	43	1	-196	-194	-107	-88	-24	430	951	1381	2
31	-55.	-66	-73	11	17	13	12	9	15	16	33	53	99	69	44	28	20	20	16		-85	-122	-114	-40	-6	475	605	1080	1
M	-164	-146	-118	-69	-45	-15	-7	11	20	27	35	50	69	78	92	83	66	31	-24	-74	-122	-164	-141	-147	-29	603	1294	1897	0.9
MPS	0	2	0	1	2	9	6	16	21	27	35	50	72	81	94	85	67	34	14	7	3	0	0	1					
MNS	164	148	118	70	47	24	13	5	1	0	0	0	3	3	2	2	1	12	38	81	125	164	141	148					

Tromsö. **Horizontal Intensity. H = 11500 + Tabular Quantities expressed in Gamma.** *Gr. M. T.*

HOURLY MEAN VALUES

APRIL 1930

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	-152	-214	23	75	45	97	93	72	53	55	65			258	323	195	222	155	75	21	-41	-226	-156	6	47	750	92
2	-30	-94	28	96	103	97	83	82	73	72	80	110	118	116	136	165	160	131	134	138	-32	-140	-152	-54	59	480	91
3Q	46	83	-82	58	56	78	103	106	85	65	61	68	91	113	176	223	180	133	108	103	101	105	100	95	94	380	92
4Q	100	101	104	104	101	96	86	75	64	62	61	64						106	124	123	113	103	106	93	94	75	92
5Q	97	92	96	88	73	86	78	72	73								96	98	109	110	104	103	101	97	93	71	92
6	57	-23	38	53	83	103	97	88	78	73	69	100	123	146	278	333	373	118	143	91	18	-217	-92	-392	72	660	91
7D	-157	0	-117	-207	-117	43	103	100	93	103	113	79	168	163	193	313	293	243	-182	-108	-67	-57	-464	-197	14	1070	92
8D	-322	-472	-472	-157	103	33	83	42	160	193	203	353	243	163	120	193	218	233	148	-163	-47	-357	-157	-217	5	1250	92
9	-338	-229	-87	8	83	135	120	73	56			215	240	286	172	245	262	158	45	-65	-42	-210	-420	-630	4	560	93
10D	-170	-175	-250	-155	-15	-62	102	112	110	155	245	355	285	185	285	235	235	-128	-20	-170	-345	5	-47	-460	13	1459	93
11	-192	-55	-370	-32	-25	75	30	65	85	205	115	235	258	175	118	245	195	145	-245	-360	-405	-168	-52	-97	-2	830	94
12	-160	-680	-190	-265	-8	-5	95	48	65	(104)	156	160	(195)	208	195	196	158	93	-5	-78	-405	-76	-235	-212	-27	1070	94
13	-155	-365	-490	62	31	55	92	101	90	101	128	160	165	217	195	135	174	92	98	63	-5	-65	-12	-170	29	990	94
14	-440	-405	-335	-22	100	78	101	86	88	108	136	95	(122)	128	121	170	148	141	150	-5	-24	-105	-125	-312	0	930	94
15	-282	-215	-195	-175	-148	-25	52	90	110	142	202	255	110	156	258	278	218	201	35	85	-165	-138	-235	-325	12	960	94
16	-470	-242	-202	-215	-45	75	87	82	93	82	81	121	320	256	122	99	107	121	109	97	78	-15	-450	-530	-10	1050	94
17	-395	-190	-185	-20	0	48	81	62	115	91	71	115	128	178	97	111	139	160	152	115	5	-98	75	35	37	760	95
18	11	-15	11	82	95	89	78	93	79	68	115	149	172	197	255	310	260	170	48	-82	-30	-192	-242	-90	68	740	94
19	-1	85	78	82	105	82	48	91	70	68	81	142	202	100	75	85	91	155	95	-105	40	35	36	71	76	490	96
20D	71	15	85	90	85	-5	-185	11	50	95	175	295	125	215	265	245	258	145	81	42	52	95	-52	-265	83	1050	94
21	-265	-185	65	-60	100	42	95	10	65	155	155	206	151	251	308	205	175	175	88	2	-38	-202	-205	-650	27	920	96
22	-290	-235	-145	30	82	105	85	83	98	92	170	278	230	240	140	225	278	138	27	-420	-82	-55	-92	-440	23	910	96
23	-205	-80	-17	78	98	98	53	68	88	65	60	138	180	192	236	195	187	160	85	-420	-460	-155	-75	-45	22	920	96
24D	45	-30	68	91	93	73	50	48	71	86	73	60	85	111	158	169	182	118	190	98	-22	-18	52	2	77	460	96
25	8	-225	2	92	76	92	91	87	72	55	83	81	(131)	178	332	238	145	172	132	68	-175	-15	55	56	76	650	96
26	8	-105	-145	-90	45	85	40	12	68	82	85	68	122	95	111	178	158	162	88	-123	-40	63	-28	-2	39	445	96
27Q	89	96	62	98	94	91	94	80	78	60	115	122	125	85	132	182	161	155	65	-175	48	52	-45	-82	74	520	96
28Q	-53	45	35	80	41	91	98	84	80	91	88	68	85	106	108	107	140	205	132	130	41	-2	-59	55	75	480	96
29	91	88	98	101	100	94	85	68	60	68	88	105															
30														106	102	135	168	190	188	140	135	106	94	90			
M	-119	-125	-86	-1	49	67	73	72	82	96	114	155	160	171	182	200	192	143	76	-29	-58	-64	-96	-158	42	747	94
QM	95	93	99	100	97	93	82	79	75	68	72	86	96	105	104	109	107	106	109	111	107	103	99	94			

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	QM
1	105	31	-11	-5	25	75	96	86	71	71	67	68	69	83	88	92	96	107	115	116	108	99	88	75	76	82	94
2Q	32	20	71	103	99	96	90	84	81	67	64	69	78	84	89	93	104	117	121	121	114	108	108	106	88	135	95
3Q	96	96	92	90	88	87	86	70	62	60	65	69	79	(127)	176	155	115	107	103	102	97	97	98	105	97	167	92
4	95	-11	-290	-325	-215	-81	80	88	68	88	105	152	280	348	225	240	258	212	238	75	85	51	-12	55	71	860	93
5D	-165	-490	-495	-470	-245	-20	15	75	82	207	320	165	360	335	245	252	172	140	-155	25	-270	-440	-185	-112	-27	1230	93
6D	-111	-130	-205	-405	-445	7	48	40	49	125	215	240	378	218	152	282	184	202	178	95	-80	-245	-610	-380	-8	1070	95
7	-430	-510	-570	-245	5	128	90	81	109	115	91	95	145	138	180	251	170	208	-125	-245	-360	-245	-130	-510	-65	1340	95
8	-380	-140	-155	-5	-45	-5	25	95	132	180	131	102	145	156	238	265	258	198	95	115	35	-235	-520	-335	15	1105	96
9	-355	-190	-5	72	-5	48	128	72	120	120	141	205	370	315	315	270	125	158	111	-181	-195	-278	-205	-470	29	990	96
10	-385	-220	-165	-215	75	121	95	83	98	148	108	148	118	122	165	145	182	130	118	109	-25	22	73	52	46	679	97
11	-7	-13	87	98	95	88	85	78	76	80	90	101	123	88	121	116	123	118	101	99	94	74	-5	-215	71	510	98
12	-520	-255	-175	-155	82	105	15	35	80	75	70	138	178	215	245	145	128	120	158	95	70	-155	-465	-280	-3	1005	98
13	-215	2	45	141	48	-95	75	85	102	75	145	146	148	188	242	190	188	190	155	-65	-118	-85	-40	2	65	735	98
14	-205	-280	70	15	70	82	89	91	89	(85)	82	85	88	107	129	168	237	175	142	55	85	30	-238	-98	48	615	98
15	6	9	50	68	101	83	59	70	99	119	68	95	183	211	249	217	212	225	145	25	91	26	-270	-240	79	690	98
16D	-103	-55	5	-48	-207	101	63	(67)	(75)	(87)	98	100	108	88	147	302	345	130	-150	-15	97	68	-5	-340	40	910	98
17D	-235	-195	-235	-95	-68	105	15	190	100	105	180	231	283	378	420	258	191	168	68	70	-91	-195	-190	-205	52	960	98
18	-95	-140	-55	-155	28	69	71	92	88	(107)	(124)	140	195	255	151	160	128	98	85	-82	15	-10	-22	62	55	740	98
19	40	-252	-242	61	70	105	108	96	86	70	85	110	111	110	146	201	272	198	142	68	-42	-76	-92	-141	51	690	98
20	-111	-42	110	61	-18	-48	-20	38	90																		
21																											
22													151	138	115	116	148	131	175	146	126	48	45	39			
23	-11	-80	38	69	83	83	101	83	70	130	89	113	90	112	97	109	163	168	169	87	83	26	55	49	82	335	97
24Q	97	94	77	83	91	88	83	76	70	88	92	88	90	141	126	118	132	163	145	55	82	32	35	-40	88	210	97
25	31	100	88	82	31	89	89	90	79	86	89	97	98	112	178	197	155	145	110	141	8	-55	68	-7	88	400	99
26	-121	-380	-11	-15	-15	71	85	80	78	102	108	121	155	131	125	110	118	141	143	105	105	105	84	82	63	670	101
27Q	102	104	108	109	106	92	88	84	81	74	(84)	90	117	112	101	145	139	155	151	163	95	118	118	117	110	136	101
28Q	118	119	118	116	108	101	91	84	78	76	126	114	146	197	322	328	271	252	175	111	112	86	78	104	143	280	102
29	109	108	92	79	51	73	98	94	(83)	83	76	90	94	105	135	165	211	252	209	110	93	115	105	11	110	252	102
30	-202	-55	70	112	104	102	92	85	78	80	101	88	95	135	205	178	228	296	168	148	125	-112	-220	-72	76	710	102
31D	-205	-175	-255	-151	-361	-11	52	130	162	111	141	138	215	165	238	138	178	95	-240	-225	-245	-225	-173	-370	-36	880	101
M	-104	-101	-60	-32	-9	60	72	84	87	101	112	121	162	170	185	187	180	165	98	49	10	-43	-84	-102	54	657	96
QM	99	103	99	96	95	89	88	77	74	74	76	79	87	92	101	106	111	117	123	118	115	110	106	100			

JUNE

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1D	-31	-175	-325	-355	-245	141	81	148	151	215	111	142	195	153	155	253	275	181	-55	98	165	-241	-128	-130	32	705	101
2D	-345	-390	-110	-195	-28	12	102	65	(107)	(158)	205	235	195	212	208	295	245	194	107	-530	-235	-41	-221	-230	1	1012	101
3	-340	-230	-420	-152	-35	2	12	102	98	(177)	252	211	185	155	245	248	238	182	25	-110	-185	-60	-111	-321	7	430	101
4	-125	-65	122	105	71	48	38	85	150	(146)	(141)	140	118	74	92	97	99	86	78	-63	-530	-430	-290	-285	-4	945	100
5	-235	-62	8	18	9	-11	-10	1	2	-2	-25	138	150	143	95	131	120	142	158	118	90	-35	-152	-28	32	530	101
6	-102	-125	90	78	118	109	97	53	63	93	65	68	95	111	155	143	156	163	166	121	101	98	22	-330	67	755	101
7D	-201	-175	-255	-245	92	65	-58	-48	95	92	119	152	212	352	280	228	119	212	210	83	-48	28	-117	-417	32	1230	100
8	-340	-440	-170	110	82	98	132	75	88	110	82	185	265	270	180	119	141	150	148	-2	25	65	55	32	61	1060	100
9	-5	2	71	20	35	12	68	83	60	90	140	148	166	232	285	235	255	145	85	130	41	-165	-110		88	590	99
10						92	99	88	84	93	117	108	95	101	130	142	177	172	160	25	80	71	56		105	360	99
11Q						86	68	68	66	84	84	88	108	111	109	119	135	168	170	138	118	86	-12		100	510	99
12D						118	111	109	95	(87)	81	162	265	460	315	376	265	209	185	60	55	-15	-210	-230	131	1120	98
13	-230	-5	65	135	101	35	115	155	(137)	(118)	105	198	111	175	238	315	255	228	168	101	71	62	-155	(-66)	101	705	98
14	-45	-60	-31	35	78	91	78	81	115	85	262	238	120	97	89	98	110	98	92	102	108	94	90	94	88	525	98
15Q	100	100	101	103	97	88	83	80	78	73	85	80	84	100	103	111	113	128	131	135	128	129	118	98	102	63	99
16D	121	130	115	104	81	25	1	8	-135	-25	285	470	510	118	92	102	105	138	205	145	66	70	-55	-245	101	190	100
17	-215	-113	-120	-240	55	110	115	107	128	95	115	142	125	107	158	162	240	235	188	85	-105	-172	-75	11	47	570	100
18	-23	-240	-295	-105	95	112	115	105	110	112	(137)	(172)	205	265	248	255	270	87	118	138	55	-65	-161	-245	53	705	101
19	-65	-85	85	95	83	95	125	90	81	100	128	261	161	231	270	212	230	195	165	158	105	10	-30	-7	112	520	101
20	-270	-345	-201	10	25	118	95	81	105	95	109	180	165	210	197	165	170	128	-45	35	38	26	11	-80	43	625	102
21	-145	95	106	101	105	111	105	98	88	92	88	108	185	260	245	260	235	135	131	118	116	107	90	61	121	680	102
22	7	11	56	101	102	89	92	87	79	115	135	128	128	105	104	103	131	140	143	149	100	102	69	81	98	140	102
23Q	122	92	103	105	111	112	108	106	98	83	70	82	87	98	125	142	148	138	119	120	118	108	96	99	108	115	103
24Q	101	101	88	81	74	82	82	81	52	68	75	86	102	135	166	165	145	153	158	128	108	84	79	94	103	130	103
25Q	104	80	76	98	103	91	88	99	103	95	88	102	109	121	128	136	139	157	142	141	142	133	137	133	114	115	103
26	120	108	105	113	109	91	81	87	85	125	107	207	330	405	285	153	150	168	148	119	69	85	98	79	143	460	102
27	47	-410	-168	90	112	109	101	96	109	(122)	135	205	195	125	158	195	268	325	180	142	61	-152	-7	-25	84	1020	102
28	-161	-245	-260	-95	95	92	111	132	138	105	114	158	169	192	252	410	256	222	-47	-145	55	-110	-305	-75	44	1160	102
29	-25	-212	-52	-320	-120	65	160	145	145	161	170	195	345	220	185	205	242	160	-70	-25	-45	-155	-170	-165	43	970	102
30	-5	65	128	-10	-20	-5	101	120	165	175									108								
M	-81	-96	-40	-8	51	76	83	86	91	105	123	165	179	184	183	192	187	167	116	59	30	-10	-48	-80	72	646	101
QM	101	102	104	106	103	97	91	88	84	81	80	84	90	99	101	108	113	121	126	125	115	108	101	99			

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

HOURLY MEAN VALUES.

APRIL 1930

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	DIURNAL SUM PS	NS	AS	C
1	-246	-308	-63	-31	-58	0	10	-10	-20	-17	4	57	110	166	230	101	126	57	-30	-84	-150	-331	-256	-90	-35	861	1694	2555	1
2	-120	-190	-69	0	0	0	0	0	0	0	19	43	27	24	43	71	64	33	29	34	-138	-245	-252	-150	-32	387	1164	1551	1
3Q	-52	-15	-182	-44	-46	-18	19	27	0	0	0	0	0	21	83	129	84	35	3	0	0	0	0	0	2	401	357	758	0
4Q	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	6	7	8	19	18	9	-1	5	-3	3	77	4	81	0
5Q	-3	-9	-8	-16	-27	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	-3	0	60	60	0
6	-42	-123	-74	-51	-16	17	19	15	4	9	5	35	33	54	185	238	276	18	37	-19	-87	-320	-193	-489	-19	945	1414	2359	1
7D	-255	-99	-220	-310	-216	-44	25	26	18	38	48	13	77	70	99	217	195	142	-289	-218	-173	-160	-564	-294	-78	968	2842	3810	2
8D	-420	-571	-574	-259	5	-54	5	-33	84	127	137	286	151	69	25	96	119	131	41	-273	-153	-460	-257	-314	-87	1276	3368	4644	2
9	-435	-328	-189	-94	-15	48	42	-3	-21	35	91	147	147	191	74	147	162	55	-62	-175	-148	-313	-520	-727	-79	1139	3030	4169	1
10D	-261	-273	-351	-256	-112	-150	24	35	32	87	177	286	191	89	188	136	134	-232	-128	-281	-451	-98	-147	-557	-80	1379	3397	4776	2
11	-288	-152	-471	-133	-122	-16	-48	-13	6	137	46	165	163	78	20	145	93	40	-353	-471	-511	-271	-152	-193	-96	893	3194	4087	2
12	-256	-777	-290	-365	-104	-93	17	-33	-14	36	86	89	100	110	96	95	55	-13	-113	-189	-511	-179	-335	-308	-121	684	3580	4264	2
13	-250	-460	-589	-37	-65	-33	14	23	11	33	57	89	68	118	95	33	70	-15	-11	-48	-112	-168	-112	-265	-65	612	2265	2778	2
14	-535	-501	-434	-121	4	-11	23	8	9	40	64	22	25	28	20	67	45	33	41	-116	-131	-208	-225	-407	-94	429	2689	3118	2
15	-377	-311	-294	-274	-244	-114	-26	12	31	74	130	182	12	56	157	175	113	93	-74	-26	-272	-241	-335	-420	-82	1035	3009	4044	2
16	-564	-337	-299	-312	-141	-14	9	4	14	14	7	46	222	154	19	-6	0	13	0	-14	-29	-117	-549	-624	-104	502	3006	3508	2
17	-489	-285	-292	-127	-95	-41	3	-16	36	23	-4	39	30	75	-7	5	32	52	43	4	-102	-201	-24	-59	-58	342	1742	2084	1
18	-82	-110	-86	-14	0	0	0	15	0	0	39	78	74	93	150	203	153	62	-61	-193	-137	-294	-341	-183	-26	867	1501	2368	1
19	-94	-10	-19	-14	10	-7	-31	12	0	0	4	64	104	-5	-31	-22	-17	46	-15	-217	-67	-67	-63	-22	-20	230	701	931	1
20D	-22	-80	-8	-6	-10	-94	-265	-69	-24	27	97	215	27	109	158	138	150	36	-29	-70	-55	-7	-150	-358	-11	957	1247	2204	2
21	-358	-293	-32	-156	5	-49	12	-74	-8	87	76	123	53	145	201	98	67	65	-23	-110	-146	-304	-303	-643	-69	932	2599	3531	2
22	-383	-330	-242	-66	-13	15	4	1	24	24	91	196	132	134	33	118	170	29	-84	-532	-190	-157	-190	-533	-73	971	2720	3691	2
23	-298	-175	-114	-18	3	7	-32	-17	16	-3	-19	53	82	86	129	88	78	49	-27	-532	-568	-257	-173	-138	-74	591	2371	2962	2
24D	-48	-125	-29	-5	-2	-19	-37	-38	-1	18	-6	-26	-13	5	51	62	73	7	78	-14	-130	-120	-46	-91	-19	289	755	1044	1
25	-85	-320	-95	-4	-19	0	0	0	0	-13	4	-6	33	72	225	131	36	61	20	-45	-283	-117	-43	-37	-20	582	1067	1649	1
26	-85	-200	-238	-186	-49	-7	-53	-71	-7	14	6	-20	24	-11	4	71	49	50	-25	-236	-148	-39	-126	-95	-57	218	1596	1814	1
27Q	-4	0	-31	0	0	0	0	0	0	-8	36	33	27	-21	25	75	52	43	-48	-288	-60	-50	-143	-175	-22	291	828	1119	1
28Q	-145	-51	-63	-20	-56	-1	8	10	11	23	9	-22	-13	0	0	0	31	94	19	17	-67	-104	-156	-37	-21	222	730	954	1
29	0	0	0	0	0	0	0	0	0	0	0	0																	
30														0	-5	27	59	79	75	27	17	4	-3	-1					
M	-214	-218	-185	-101	-48	-26	-9	-7	7	28	42	69	65	66	78	91	85	37	-33	-140	-165	-167	-195	-252	-48	661	1838	2499	1.2
MPS	0	2	0	0	1	3	8	6	10	29	43	72	66	70	83	95	89	46	14	3	1	0	0	0					
MNS	214	220	185	101	49	26	17	13	3	1	2	3	1	4	5	4	4	9	47	143	166	167	195	252					

MAY

1	9	-66	-109	-108	-73	-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	-18	-30	-18	9	433	442	0
2Q	-64	-77	-24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-7	0	165	165	0
3Q	0	0	0	0	0	0	0	0	0	0	0	0	0	43	86	61	10	-10	-17	-18	-18	-11	-9	-1	5	200	84	284	0
4	-1	-107	-383	-416	-303	-168	-6	13	1	23	39	82	201	263	134	145	152	95	18	-45	-30	-58	-118	-50	-22	1169	1685	2854	2
5D	-261	-586	-589	-562	-333	-109	-71	3	14	141	253	94	280	250	153	156	65	23	-275	-95	-385	-550	-290	-216	-120	1432	4322	5754	2
6D	-208	-237	-310	-498	-534	-80	-38	-33	-20	57	146	168	298	132	58	184	76	85	56	-25	-195	-355	-715	-483	-103	1262	3731	4993	2
7	-527	-607	-666	-339	-85	40	4	7	39	45	20	22	64	52	84	151	61	90	-245	-365	-475	-355	-235	-612	-160	679	4511	5190	2
8	-478	-238	-252	-100	-136	-93	-61	20	60	108	58	28	63	69	140	163	148	80	-25	-5	-80	-345	-625	-435	-81	937	2874	3811	2
9	-453	-289	-103	-24	-97	-40	43	-4	46	47	67	130	287	228	215	166	14	40	-9	-301	-310	-388	-310	-570	-67	1283	2898	4181	2
10	-484	-320	-263	-312	-18	33	10	5	23	74	32	71	34	34	63	39	70	12	-2	-11	-140	-88	-32	-48	-51	500	1718	2218	1
11	-107	-114	-12	0	0	0	0	0	0	5	13	22	38	-1	17	10	10	0	-19	-21	-21	-36	-110	-315	-27	98	756	854	1
12	-620	-356	-274	-253	-13	17	-71	-44	4	-1	-7	59	92	124	141	37	15	2	38	-25	-45	-265	-590	-380	-101	529	2944	3473	2
13	-315	-99	-62	44	-47	-173	-12	6	26	-1	67	66	62	95	138	82	75	75	35	-185	-233	-195	-145	-98	-33	809	1609	2418	1
14	-305	-381	-37	-81	-24	6	0	12	13	9	4	5	1	13	25	58	124	57	22	-65	-30	-80	-343	-198	-50	349	1544	1893	1
15	-94	-92	-56	-27	7	-5	-29	-10	23	42	-11	15	95	117	144	108	98	107	25	-95	-24	-86	-375	-340	-19	781	1244	2025	1
16Q	-202	-155	-91	-142	-300	13	-24	-13	-1	10	19	9	18	-7	42	193	231	12	-270	-135	-18	-42	-110	-439	-58	547	1949	2496	2
17D	-334	-295	-330	-188	-161	17	-71	110	24	26	100	150	193	282	315	148	77	47	-52	-50	-206	-305	-295	-304	-46	1489	2591	4080	2
18	-194	-240	-149	-247	-65	-19	-15	12	12	28	44	59	104	158	46	50	14	-20	-35	-202	-100	-120	-127	-37	-43	527	1570	2097	1
19	-58	-352	-336	-29	-22	17	22	16	11	-9	5	29	19	12	41	91	158	80	22	-52	-167	-185	-196	-239	-47	523	1645	2168	1
20	-209	-142	17	-27	-110	-136	-106	42	15																				
21																													
22													57	39	10	6	34	13	55	96	11	-61	-59	-59					
23	-108	-180	-53	-15	-8	-5	17	3	-1	50	8	30	-5	13	-8	-1	49	50	49	-33	-32	-83	-49	-49	-15	269	630	899	1
24Q	0	0	-13	0	0	0	0	0	0	8	11	5	-6	42	21	8	18	45	25	-65	-33	-78	-69	-137	-9	183	401	584	0
25	-58	3	-10	-16	-65	0	0	8	0	5	7	13	0	13	73	87	41	27	-10	21	-107	-165	-37	-106	-11	298	574	872	1
26	-221	-480	-113	-120	-116	-20	-3	-4	-2	21	26	36	59	32	20	0	4	23	23	-15	-10	-5	-20	-19	-38	244	1148	1392	1
27Q	0	0	0	0	0	0	0	0	0	0	2	5	22	13	-4	35	25	37	31	43	-21	6	12	15	9	246	25	271	0
28Q	17	16	11	12	0	0	0	0	0	-5	44	28	52	98	217	218	157	134	55	-9	-3	-25	-29	3	41	1062	71	1133	0
29	8	5	-14	-29	-55	-26	7	10	5	0	0	4	0	6	30	55	97	134	89	-10	-22	4	0	-90	8	447	246	693	0
30	-303	-257	-35	5	0	0	0	0	0	0	17	0	1	36	100	68	114	178	48	28	10	-223	-325	-173	-26	605	1216	1821	1
31D	-306	-277	-360	-256	-466	-113	-39	46	84	30	64	50	121	86	133	28	64	-23	-360	-345	-360	-336	-278	-471	-137	706	3990	4696	2
M	-203	-204	-159	-128	-104	-29	-16	7	13	27	36	42	75	78	84	81	69	48	-25	-69	-105	-153	-190	-202	-43	607	1670	2277	1.1
MPS	1	1	1	2	0	5	3	11	14	28	37	42	75	78	84	81	69	50	20	6	1	0	0	1					
MNS	204	205	160	130	104	34	19	4	1	1	1	0	0	0	0	0	0	2	45	75	106	153	190	203					

JUNE

1D	-132	-273	-431	-463	-351	41	-10	60	73	134	29	56	101	54	50	143	171	63	-175	-22	50	-361	-233	-231	-69	1025	2682	3707	1
2D	-445	-492	-215	-302	-133	-87	12	-19	29	77	124	149	102	113	104	186	131	76	-13	-651	-349	-152	-326	-330	-100	1103	3604	4617	2
3	-440	-332	-525	-259	-140	-97	-78	18	20	96	172	126	92	56	142	139	124	63	-95	-232	-299	-170	-216	-420	-94	1048	3303	4351	1
4	-225	-167	18	-2	-23	-50	-51	2	72	66	61	55	26	-25	-10	-12	-14	-34	-43	-186	-643	-540	-395	-384	-104	300	2803	3103	2
5	-332	-164	-96	-90	-95	-109	-99	-84	-76	-81	-104	54	58	44	-7	23	7	22	36	-6	-23	-154	-256	-127	-69	244	1896	2140	1
6	-202	-226	-14	-30	15	12	9	-30	-15	15	-14	-16	4	12	47	35	43	43	43	-4	-11	-11	-82	-429	-34	278	1084	1362	1
7D	-301	-276	-359	-353	-11	-32	-146	-131	17	14	40	68	121	253	178	120	6	92	77	-42	-160	-81	-221	-516	-68	986	2629	3615	2
8	-440	-541	-273	4	-20	2	45	-7	10	33	4	102	175	171	79	11	29	29	23	-129	-86	-43	-49	-67	-39	717	1648	2365	2
9	-105	-99	-32	-85	-67	-84	-19	1	-18	13	63	66	76	143	185	128	143	24	-41	2	-70	-275	-213		-11				1
10						-3	13	6	6	17	40	26	6	2	30	35	65	50	33	-104	-30	-37	-47		(6)				0
11Q						-8	-20	-14	-12	8	8	6	20	12	9	12	24	45	42	8	-21	-115			(1)				
12D						25	26	27	17	11	5	80	178	361	220	274	154	85	56	-72	-54	-121	-312	-327	(33)				2
13	-330	-106	-37	31	1	-57	30	73	59	44	30	116	25	76	145	214	144	103	38	-32	-38	-40	-255	-163	3	1129	1058	2187	1
14	-146	-161	-133	-69	-21	1	-6	0	37	11	188	157	35	-2	0	0	0	-28	-39	-32	-10	-5	-10	0	-10	429	662	1091	1
15Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	30	18	4	3	62	0	62	0
16D	21	30	14	1	-18	-66	-85	-76	-215	-99	212	390	425	18	-10	-9	-8	12	66	12	-52	-29	-155	-344	1	1201	1166	2367	2
17	-315	-213	-222	-343	-45	16	26	18	36	20	42	62	40	7	57	51	126	111	57	-44	-223	-271	-175	-88	-53	669	1939	2608	1
18	-123	-341	-398	-209	-7	15	23	13	24	36	64	92	120	165	148	144	156	-35	-13	12	-63	-179	-267	-344	-40	1012	1979	2991	1
19	-165	-186	-19	-9	-20	-5	29	-4	-5	22	55	180	75	132	170	101	116	75	34	35	-13	-102	-134	-106	11	1024	768	1792	1
20	-370	-446	-306	-95	-78	14	-5	-15	17	15	36	98	79	111	97	55	55	8	-176	-85	-80	-84	-91	-179	-59	585	2010	2595	1
21	-245	-6	0	-4	0	3	3	0	-4	11	15	26	98	161	145	150	120	16	0	0	0	-3	-10	-38	18	748	310	1058	1
22	-93	-90	-48	-4	-3	-21	-8	-15	-16	33	62	46	41	5	4	-7	16	21	17	30	-17	-8	-29	-18	-4	276	377	653	0
23Q	22	-9	0	0	0	0	0	0	0	0	0	0	0	0	25	32	32	20	0	0	0	0	0	0	5	131	9	140	0
24Q	0	0	-15	-27	-33	-23	-18	-18	-46	-21	-4	0	4	37	66	55	29	34	38	8	-10	-23	-19	-5	0	271	262	533	0
25Q	0	-23	-27	-9	-1	-7	-6	0	7	0	0	10	10	23	28	26	23	38	21	21	24	26	39	34	11	330	73	403	0
26	20	7	0	0	0	3	0	0	0	30	19	117	236	297	185	43	35	49	27	-1	-49	-22	0	-20	41	1065	92	1157	2
27	-55	-512	-273	-20	3	17	20	9	23	35	48	115	101	27	58	85	153	206	58	22	-57	-259	-106	-125	-18	980	1407	2387	2
28	-261	-347	-365	-204	-13	-2	30	45	52	18	26	68	75	94	152	300	141	102	-170	-265	-65	-217	-404	-175	-58	1103	2488	3591	2
29	-128	-314	-157	-427	-228	-29	79	58	59	74	82	105	251	122	85	95	127	40	-194	-145	-163	-262	-269	-265	-59	1177	2581	3758	2
30	-108	-39	23	-119	-128	-99	20	33	79	78									-17										
M	-182	-198	-144	-114	-52	-21	-6	-2	8	24	43	81	89	85	82	84	74	46	-10	-66	-85	-118	-149	-179	-30	719	1458	2177	1.1
MPS	2	1	2	1	1	5	12	12	21	30	49	82	89	86	83	85	75	49	22	5	3	2	2	1					
MNS	184	199	146	115	53	26	18	14	14	7	6	1	0	1	1	1	1	3	33	71	88	120	151	181					

Tromsö. Horizontal Intensity. H = 11500 + Tabular Quantities expressed in Gamma. *Gr. M. T.*

HOURLY MEAN VALUES

JULY 1930

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1																											
2																											
3																											
4																											
5																											
6																											
7													105	135	108	115	105	113	125	80	5	-15	-20	55			
8Q	75	45	55	75	93	83	85	80	75	70	70																
9										37	37	47	65	72	75	95	135	177	170	175	125	215	125	15			
10D	-130	-370	-390	-300	-65	55	65	25	65	125	245	280	190	140	190	240	270	85	50	110	75	-155	-80	-330	16	1090	101
11D	-330	-390	-430	-350	-200	85	135	110	90	75	70	55	90	125	190	145	165	210	180	-60	-35	-65	50	-85	-7	1070	100
12D	-80	-280	-160	-15	-125	-230	-35	85	85	80	155				240	245	125	135	95	30	-135	-300	-160	-40		920	
13D	-25	10	-35	5	-75	25	115	75	65	45	60	120	260	200	240	310	250	55	135	-35	-290	-30	-60	-230	50	995	101
14	-280	-250	20	70	50	20	55	65	75	75	50	80	65							-20	15	73	80	71			
15	10	15	67	85	50	72	79	75	80										130	95	88	63	-10	55			
16	40	65	92	86	67	50	27	10	45	75	120	160	145	180	135	190	200	215	15	-230	-260	-150	-30	-30	51	755	100
17	-260	-240	-270	-35	85	100	75	105	85	90	85	115	160	245	250	280	200	175	130	120	35	-110	35	0	61	960	100
18	73	93	90	88	80	65	50	65	65	87	90								160	10	-35	55	89	78			
19	87	50	77	27	83	93	89	73	77	68	85	95	108	125	175	125	110	123	125	95	-160	-55	-115	-95	61	505	100
20Q	10	83	87	92	83	91	77	77	88	95	85	117	127	125	110	93	87	102	117	135	65	63	65	82	90	220	100
21Q	90	15	65	110	105	85	50	47	75	97	93	95	105	123	133	142	142	155	145	105	85	20	25	5	88	235	101
22Q	75	98	93	97	105	105	95	87	88	95	95	105	95	125	167	137	107	97	107	140	85	85	85	80	102	165	101
23Q	80	95	105	95	87	83	78	75	77	80	110	145	103	88	95	92	127	170	185	117	120	107	60	-5	99	275	101
24	-40	65	85	92	105	100	93	85	83	87	85	83	110	105	137	143	195	230	250	165	120	-90	-210	-260	76	750	101
25D	-25	-300	10	-25	-90	-5	50	110	95	95	165	255	215	340	225	135	135	155	135	120	-35	-450	-230	-100	41	1040	101
26	-210	-190	-300	-55	65	-45	50	0	95	185	215	280	155	200	205	160	125	160	100	53	107	65	23	0	60	900	100
27	-240	-145	40	85	125	115	100	75	97	75	83	107	147	168	170	180	130	147	137	115	100	35	-105	-230	63	600	102
28	-135	-20	-105	-10	108	105	85	77	77	82	77	103	117	107	117	210	215	147	147	117	10	-35	-5	-90	63	590	101
29	35	35	45	-105	-25	65	83	77	87	105	137	225	185	105	160	215	185	170	115	95	95	55	-190	0	81	535	102
30	95	117	115	103	85	95	87	105	67	135	93	105	125	97	105	97	180	200	147	125	97	-55	-50	-125	89	540	103
31	-240	-250	-110	35	100	115	125	120	97	98	95	103	110	113	95	107	115	133	137	100	77	85	65	58	62	525	103
M	-58	-72	-33	11	39	58	74	74	80	89	104	134	133	146	158	165	157	150	132	73	15	-25	-24	-47	64	667	101
QM	105	106	108	106	101	95	88	81	76	73	75	81	92	101	108	114	117	119	119	118	111	107	106	103			

AUGUST

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1	0	-125	-3	50	110	90	100	92	80	78	82	80	135	135	145	145	122	120	137	125	112	70	-65	68	79	445	103
2Q	70	88	98	82	55	72	92	97	92	90	72	120	140	280	230	170	145	185	120	105	55	72	20	-12	106	420	104
3Q	20	30	92	97	108	110	107	98	88	80	80	90	90	102	128	130	128	152	175	140	115	-50	-230	-45	77	500	105
4Q	65	92	108	102	75	70	85	87	90	82	82	70	83	100	108	110	127	130	147	130	110	82	-35	-90	84	345	105
5	20	90	108	105	107	108	102	95	90	82	78	95	118	155	115	132	170	230	110	70	5	40	0	-110	88	525	104
6D	-90	-60	-130	70	-110	-270	-190	65	65	110	130	305															
7D																											
8D																											
9D																											
10																											
11																											
12D																											
13														143	135	125	155	174	105	-40	55	-80	-160	-50			
14	-65	10	30	60	80	85	52	85	85	65	75	150	100	110	120	170	180	165	55	-15	-700	15	-90	-80	31	1060	102
15	-100	-340	-170	0	25	-130	-20	55	100	92	95	100	185	340	400	345	160	130	100	80	62	68	68	78	72	830	102
16	86	80	25	-20	42	30	62	38	70	115	73	110	132	210	180	280	260	190	40	-30	-220	-85	-30	-235	59	900	102
17Q	-220	-5	95	110	108	103	94	85	75	65	68	70	80	92	140	135	165	202	140	-10	-10	-50	-42	-115	57	560	101
18	-110	60	82	98	96	88	82	75	63	70	75	100	98	125	92	88	95	120	170	107	-60	-100	-405	-220	37	730	100
19	-80	50	-40	92	98	72	90	88	75	130	150	200	160	305	138	240	178	172	118	116	70	62	63	70	107	605	100
20	68	28	-100	20	53	77	100	90	77	70	105																
21														100	140	265	200	130	110	-40	-100	-10	5	0			
22	-330	-200	-340	-340	-40	70	40	110	100	95	120	160	240	220	180	140	102	102	125	50	-30					800	
23	-230	-160	-85	-5	45	82	80	40	82	85	100	125	170	235	350	245	145	80	130	-15	-370	-205	-30	35	39	910	96
24	-140	-145	-105	20	65	105	100	100	88	108	110	100	150	120	185	210	240	165	140	135	-40	-120	-50	-95	60	610	95
25	-260	-120	5	20	108	110	100	82	80	78	75	85	160	200	200	140	108	102	110	115	80	60	25	0	69	570	94
26	-15	50	75	70	80	95	90	75	70	80	75	102	115	140	180	170	170	120	120	105	-50	-80	-405	0	60	740	93
27	88	112	100	50	-15	65	120	78	90	100	110	130	140	180	175	168	200	190	160	130	15	75	75	70	109	310	93
28Q	82	68	70	80	105	90	81	73	67	63	65	72	76	82	98	98	135	160	145	125	70	30	35	-40	80	330	92
29	-180	-175	20	80	125	118	97	80	68	68	75	72	80	87	132	125	125	148	150	-120	-130	-30	30	32	45	480	92
30	5	15	70	10	25	82	92	86	72	73	78	80	85	100	103	100	101	102	107	110	80	-80	-360	-110	43	575	92
31	-60	-120	-230	-100	10	50	90	100	90	100	140	215	125	118	130	125	150	170	-20	40	-80	-55	40	40	45	530	91
M	-60	-31	-10	33	59	60	72	82	81	86	92	122	127	160	165	168	155	150	117	61	-42	-17	-70	-37	65	639	98
QM	101	104	104	106	104	101	94	86	79	74	76	82	89	96	102	108	111	113	114	112	106	104	101	100			

SEPTEMBER

DAY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	M	R	QM
1	-30	18	72	-10	-310	-350	-80	120	135	130	160	260	410	450	440	320	200	150	110	85	10	-82	-70	-35	88	960	88
2	-25	-325	-410	-80	15	50	90	108	110	90	155	120	115	120	100	140	120	102	92	98	102	97	102	90	49	800	90
3D	52	8	92	70	10	18	48	62	55	180	140	230	400	390	370	240	220	205	130	20	-100	-340	-400	-125	82	1250	90
4	-110	-200	-305	-280	40	140	150	115	120	120	160	155	95	87	130	125	142	140	80	5	20	-40	15	45	40	730	90
5	70	40	-25	45	90	98	90	80	110	72	75	130	180	185	230	285	320	110	-190	-60	-400	-330	-90	-45	45	1150	89
6D	-30	-12	-15	60	110	90	80	50	70	120	240	350	270	190	275	175	220	170	95	80	20	-65	-220	-180	89	785	88
7	25	80	78	105	98	93	100	70	110	85	105	148	130	160	180	180	195	200	55	-60	-110	-100	-290	-450	50	865	89
8	-280	-160	-95	50	102	68	98	78	90	75	68	70	80	118	140	145	210	205	150	60	-120	40	90	92	57	585	86
9	87	90	90	91	91	81	82	67	90	97	210	250	280	310	280	140	190	95	75	55	-90	-90	-305	-30	93	820	86
10	-70	-190	-160	10	50	105	90	110	90	80	70	100	143	150	190	160	125	122	132	80	25	20	30	88	65	565	87
11	84	91	90	90	90	85	97	81	55	45	55	88	90	100	195	200	160	158	170	75	101	92	-20	-180	83	460	86
12	25	100	90	78	60	60	68	62	60	61	68	85	71	100	138	152	130	128	140	60	20	-170	-340	-220	43	615	86
13	-70	95	0	-100	45	108	95	80	70	70	70	73	76	81	89	88	90	97	98	101	50	-18	-80	-245	40	580	85
14Q	-395	-250	-230	-40	80	125	95	82	82	88	92	100	122	140	160	90	92	93	90	90	-15	-50	10	-50	25	710	85
15Q	-85	0	-5	90	110	80	75	45	85	85	62	65	72	82	102	120	180	172	133	90	70	50	70	90	77	350	86
16Q	90	90	90	90	90	88	85	80	72	69	65	60	60	70	98	120	180	120	135	130	80	73	77	72	91	165	82
17	80	80	81	73	86	75	75	67	70	60	65	98	105	195	260	230	155	100	70	71	63	68	73	73	99	290	74
18D	80	79	81	83	81	80	78	73	68	75	110	270	250	220	290	280	310	100	-170	-250	-200	-130	-330	-420	46	885	82
19	-260	-160	-55	-5	0	-10	70	120	110	107	130	150	170	210	260	170	140	0	18	50	-100	-230	-150	-30	29	620	86
20	40	-10										160	160	162	147	152	162	190	193	80	60	107	108	110		270	
21	110	110	110	112	112	111	104	87	65	75	50	100	90	190	280	225	250	220	180	95	10	-65	-40	18	108	500	100
22	-110	-290	80	105	85	95	88	82	78	72	88	78	85	82	85	83	88	110	97	98	98	102	80	88	64	530	89
23	70	80	73	82	90	91	88	80	52	70	80	80	95	98	92	120	148	145	140	152	118	75	-48	-10	86	320	89
24	-190	-175	90	88	90	98	92	85	75	100	90	100	110	130	130	130	150	135	140	60	-20	60	35	-30	66	560	86
25	5	75	92	90	87	82	78	75	70	68	70	85	100	112	95	100	108	117	-10	30	120	10	-190	-30	60	405	88
26Q	75	92	93	90	98	95	88	90	72	70	75	70	87	100	90	97	117	130	112	105	102	98	98	92	93	105	89
27Q	48	80	92	101	100	98	92	82	70	81	82	83	90	102	132	123	105	99	101	100	65	70	80	80	90	155	93
28	73	78	30	-65	80	100	65	80	75	83	82	110	160	185	180	210	140	150	75	-45	30	-210	40	0	71	535	86
29D	-70	-260	-380	-240	-45	-25	100	70	140	100	150	190	330	340	280	210	140	110	-430	-310	-100	-160	-400	-450	-30	1015	85
30D	-750	-800	-400	-500	-200	-120	-90	130	230	180	50	95	80	80	80	85	100	112	92	98	95	112	95	85	-44	1500	86
M	-49	-52	-23	10	50	59	75	83	89	90	101	132	150	165	184	163	163	133	67	41	0	-34	-66	-50	61	636	87
QM	89	90	91	93	92	89	84	79	74	71	73	79	82	87	90	93	95	96	96	95	94	92	91	89			

SEPT.20: NEEDLE NOT FREE A.M.

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

HOURLY MEAN VALUES.

JULY 1930

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	DIURNAL SUM PS	NS	AS	C
1																													
2																													
3																													
4																													
5																													
6																													
7													13	33	0	2	-12	-5	7	-37	-110	-125	-128	-50					
8Q	-30	-61	-52	-30	-7	-10	-2	-2	-3	-4	-7																		
9										-37	-39	-34	-26	-29	-32	-17	18	60	53	59	9	105	18	-89					
10D	-234	-475	-496	-404	-164	-37	-26	-56	-12	51	169	199	99	39	83	128	154	-32	-67	-6	-39	-265	-187	-434	-84	922	2934	3856	2
11D	-435	-496	-537	-455	-300	-8	49	31	16	3	-4	-24	0	25	81	30	46	90	61	-177	-150	-176	-58	-190	-107	432	3010	3442	2
12D	-185	-386	-267	-120	-225	-323	-121	6	11	8	81				131	130	6	15	-24	-87	-250	-411	-268	-145					2
13D	-130	-96	-142	-100	-175	-68	29	-4	-9	-27	-14	41	170	100	131	195	131	-65	16	-152	-405	-141	-168	-335	-51	813	2031	2844	2
14	-385	-356	-88	-36	-51	-75	-33	-17	-3	0	-27	-2	-28							-137	-100	-38	-28	-34					
15	-95	-91	-40	-20	-50	-21	-7	-4	6										11	-22	-27	-48	-118	-50					
16	-65	-41	-15	-19	-33	-43	-59	-70	-30	2	45	80	54	79	27	77	83	96	-104	-347	-375	-261	-138	-135	-50	543	1735	2278	1
17	-365	-346	-377	-140	-15	7	-11	25	10	17	10	35	69	144	142	167	93	56	11	3	-80	-221	-73	-105	-39	789	1733	2522	2
18	-32	-13	-17	-17	-20	-28	-36	-15	-10	14	15								41	-107	-150	-56	-19	-27					
19	-18	-56	-30	-78	-17	0	3	-13	2	-5	10	15	17	24	67	12	-7	4	6	-22	-275	-166	-223	-200	-40	160	1110	1270	1
20Q	-94	-32	-19	-13	-17	-2	-9	-2	14	23	11	38	37	25	2	-20	-30	-17	-2	18	50	48	43	23	3	332	257	589	0
21Q	-15	-91	-42	4	4	-9	-37	-33	0	24	18	15	14	22	24	28	24	35	25	-13	-31	-92	-84	-101	-13	237	548	785	0
22Q	-30	-8	-14	-9	4	11	8	7	13	22	20	25	4	24	58	23	-11	-23	-13	22	-31	-27	-24	-25	1	241	215	456	0
23Q	-26	-12	-3	-11	-14	-11	-9	-5	2	7	35	65	12	-13	-15	-24	7	49	65	-1	4	-5	-49	-111	-3	246	309	555	0
24	-146	-42	-23	-14	4	6	6	5	8	14	10	3	19	4	27	27	75	109	130	47	4	-202	-319	-366	-26	498	1112	1610	1
25D	-132	-408	-99	-132	-193	-102	-40	28	18	21	89	174	123	239	116	20	16	35	15	2	-151	-563	-340	-207	-61	896	2367	3263	2
26	-317	-298	-409	-162	-38	-142	-40	-82	18	111	139	199	63	99	96	45	6	40	-20	-65	-9	-48	-87	-107	-42	816	2367	3183	2
27	-347	-253	-69	-23	21	17	9	-8	20	2	7	26	56	68	63	67	13	28	18	-3	-16	-77	-215	-338	-39	415	1349	1764	1
28	-242	-128	-214	-118	4	7	-6	-6	0	9	1	22	26	7	10	97	98	28	28	-1	-106	-147	-115	-198	-39	337	1281	1618	1
29	-72	-73	-64	-213	-129	-34	-9	-7	9	32	61	143	94	6	54	103	69	52	-4	-23	-20	-57	-300	-108	-20	623	1113	1736	1
30	-13	8	5	-6	-20	-5	-6	20	-12	61	16	22	33	-3	-2	-16	63	81	27	6	-19	-168	-161	-234	-11	342	665	1007	1
31	-348	-359	-220	-74	-6	14	31	34	18	24	18	20	18	14	-11	-5	-1	15	17	-19	-39	-28	-46	-51	-41	223	1207	1430	1
M	-163	-178	-141	-95	-62	-37	-14	-7	4	16	29	53	41	45	50	51	40	31	13	-45	-96	-132	-130	-150	-37	492	1408	1900	1.2
MPS	0	0	0	0	2	3	6	7	7	19	33	56	44	47	53	55	43	38	24	6	3	6	1	1					
MNS	163	178	141	95	64	40	20	14	3	3	4	3	3	2	3	4	3	7	11	51	99	138	131	151					

AUGUST

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	DIURNAL SUM PS	NS	AS	C
1	-108	-234	-113	-59	4	-11	6	6	1	4	5	-3	43	36	39	33	6	2	17	6	-4	-43	-176	-41	-24	208	792	1000	1
2Q	-39	-22	-13	-28	-52	-30	-3	10	8	15	-6	36	47	180	123	57	28	66	-1	-15	-62	-42	-92	-122	2	570	527	1097	1
3Q	-90	-71	-20	-14	0	7	11	10	7	4	1	5	-4	1	20	16	10	32	54	19	-3	-170	-343	-156	-28	197	962	1159	1
4Q	-45	-19	-4	-10	-35	-35	-13	-2	9	6	3	-15	-10	0	1	-2	11	11	26	10	-8	-33	-148	-206	-21	77	585	662	0
5	-89	-20	-3	-6	-2	4	5	7	10	7	0	11	26	56	9	21	55	112	-10	-49	-112	-74	-112	-220	-16	323	697	1020	1
6D	-199	-170	-241	-41	-219	-374	-287	-23	-15	35	52	266																	
7D																													
8D																													
9D																													
10																													
11																													
12D																													
13														46	31	16	42	58	-12	-156	-59	-191	-269	-157					
14	-172	-98	-79	-49	-27	-17	-43	-1	7	-9	-2	67	9	13	16	61	67	49	-62	-131	-814	-96	-199	-187	-71	289	1886	2175	2
15	-207	-448	-279	-109	-82	-232	-115	-31	22	18	18	17	94	243	296	236	47	14	-17	-36	-52	-43	-41	-29	-30	1005	1721	2726	2
16	-21	-28	-84	-129	-65	-72	-33	-48	-8	41	-4	27	41	113	76	141	147	74	-77	-146	-334	-196	-139	-342	-44	660	1726	2386	2
17Q	-326	-112	-13	1	1	1	0	1	-3	-9	-8	-12	-10	-5	37	27	53	87	24	-125	-123	-160	-150	-221	-44	232	1277	1509	1
18	-215	-46	-25	-10	-10	-13	-11	-10	-14	-3	0	19	9	29	-10	-19	-16	6	55	-7	-172	-209	-512	-325	-63	118	1627	1745	1
19	-185	-101	-147	-16	-8	-29	-3	3	-2	57	75	119	71	209	36	133	67	58	3	2	-42	-47	-44	-35	7	833	659	1492	1
20	-36	-77	-206	-87	-52	-23	8	6	1	-2	31																		
21														6	40	160	91	19	-2	-151	-210	-117	-99	-102					
22	-432	-303	-444	-445	-143	-28	-50	28	25	24	47	81	154	127	81	36	-6	-8	14	-60	-139								2
23	-331	-262	-188	-109	-57	-15	-9	-41	8	15	28	47	85	143	252	142	38	-29	-20	-124	-478	-310	-133	-66	-59	758	2172	2930	2
24	-240	-246	-207	-83	-36	9	12	20	15	39	39	23	66	29	88	108	134	57	31	27	-147	-224	-152	-195	-35	697	1530	2227	1
25	-358	-219	-95	-81	8	14	12	2	7	9	4	8	76	109	103	38	5	-2	3	9	25	-42	-75	-99	-22	432	971	1403	1
26	-112	-48	-24	-30	-19	0	3	-4	-2	12	5	26	32	50	84	69	66	15	14	0	-154	-181	-504	-97	-33	376	1175	1551	1
27	-9	-14	1	-50	-114	-30	-33	-1	18	32	40	54	53	90	79	67	96	85	54	25	-89	-26	-24	-27	11	694	417	1111	0
28Q	-14	-29	-28	-19	7	-4	-5	-5	-5	-5	-5	-4	-7	-7	3	-2	32	56	40	21	-32	-70	-82	-135	-12	159	438	597	0
29	-276	-272	-78	-19	27	24	11	2	-4	0	5	-4	-3	-2	37	25	22	44	45	-224	-232	-130	-67	-63	-47	242	1374	1616	1
30	-91	-82	-28	-89	-73	-12	6	8	0	5	8	4	2	11	8	0	-2	-2	2	6	-22	-180	-457	-195	-49	60	1233	1293	1
31	-155	-216	-327	-198	-87	-43	5	22	18	32	70	139	42	30	36	26	49	68	-123	-62	-181	-154	-56	-54	-46	537	1656	2193	1
M	-163	-136	-115	-73	-45	-40	-23	-2	4	14	18	41	39	65	64	60	45	38	2	-50	-150	-124	-175	-140	-34	423	1171	1594	1.1
MPS	0	0	0	0	2	2	3	5	7	15	19	43	40	66	65	61	46	39	17	5	1	0	0	0					
MNS	163	136	115	73	47	42	26	7	2	1	1	2	1	1	0	1	1	2	14	56	151	124	175	140					

SEPTEMBER

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	DIURNAL SUM PS	NS	AS	C
1	-125	-78	-25	-108	-407	-443	-165	42	63	61	89	184	327	362	346	222	100	48	7	-17	-91	-181	-166	-129	-3	1851	1935	3786	2
2	-118	-419	-505	-176	-80	-41	7	33	41	25	86	47	35	34	9	45	21	2	-9	-4	0	-3	4	-6	-41	389	1361	1750	2
3D	-42	-87	-4	-27	-86	-74	-36	-14	-16	113	69	156	319	303	279	144	121	104	28	-82	-200	-437	-495	-217	-8	1636	1817	3453	2
4	-212	-293	-399	-375	-55	50	67	39	48	52	89	81	14	0	39	29	44	40	-21	-95	-79	-137	-79	-47	-50	592	1792	2384	1
5	-21	-52	-118	-49	-5	8	7	-4	33	-1	3	55	98	98	138	190	223	12	-289	-159	-498	-426	-183	-136	-45	866	1941	2807	2
6D	-120	-103	-107	-33	18	-2	-2	-27	-3	50	168	274	188	103	184	81	124	73	-3	-18	-77	-160	-312	-270	1	1265	1235	2500	1
7	-65	-11	-14	12	3	0	14	-10	34	12	30	69	46	71	88	84	98	102	-44	-159	-208	-196	-383	-541	-40	663	1631	2294	2
8	-369	-250	-186	-41	12	-20	15	0	17	5	-4	-6	-1	32	51	53	117	111	55	-35	-213	-49	4	5	-29	477	1174	1651	1
9	0	1	0	0	0	-7	2	-10	18	27	138	174	199	225	192	49	97	0	-21	-41	-185	-182	-394	-118	7	1122	958	2080	2
10	-157	-279	-250	-81	-40	18	8	32	17	10	-2	24	62	65	102	69	32	27	36	-16	-70	-72	-59	0	-22	502	1026	1528	1
11	-5	0	0	0	2	0	-1	4	-17	-24	-17	12	9	15	107	109	67	63	-26	-21	6	0	-109	-268	-4	394	488	882	1
12	-63	10	0	-12	-28	-26	-14	-16	-13	-9	4	9	-10	15	50	61	37	33	44	-36	-75	-262	-429	-308	-43	259	1305	1564	1
13	-158	5	-91	-191	-44	22	14	4	0	-1	-2	0	0	0	2	-1	0	5	5	8	-42	-109	-169	-332	-45	65	1140	1205	1
14Q	-482	-339	-320	-130	-8	39	13	4	9	18	20	25	43	58	73	1	0	0	0	0	-105	-139	-78	-137	-60	303	1738	2041	1
15Q	-172	-89	-95	0	22	-6	-7	-33	12	16	-9	-9	-7	0	16	30	87	77	37	-6	-25	-43	-21	1	-9	298	522	820	0
16Q	0	0	0	0	0	2	4	3	0	1	-5	-15	-20	-14	12	30	88	26	41	36	-13	-17	-10	-13	6	243	107	350	0
17	-5	-7	-6	-15	0	-9	-5	-8	0	-6	-3	-25	27	113	175	142	65	8	-23	-22	-31	-20	-12	-10	14	530	207	737	0
18D	3	0	0	0	0	0	0	0	0	4	37	195	172	138	204	191	218	7	-262	-340	-288	-217	-416	-505	-36	1169	2028	3197	2
19	-347	-249	-145	-95	-88	-96	-12	42	37	38	59	74	89	125	172	79	47	-95	-78	-46	-195	-322	-239	-117	-57	762	2120	2886	1
20	-48	-99										70	65	63	45	49	58	95	87	-27	-47	0	0	0	(21)				0
21	0	0	0	0	0	0	-3	-15	-32	-17	-43	6	-5	94	183	127	151	121	81	-4	-88	-162	-136	-77	8	763	582	1345	1
22	-203	-384	-15	9	-7	5	1	2	2	-5	9	-3	2	-2	-5	-7	-5	15	0	0	0	5	-16	-7	-25	50	659	709	1
23	-24	-15	-23	-14	-4	0	0	-3	-25	-3	6	2	13	13	4	30	56	51	45	56	23	-18	-138	-97	-3	299	364	663	0
24	-276	-263	1	-2	2	13	11	8	2	30	18	24	29	45	42	40	58	42	46	-34	-113	-30	-52	-115	-20	411	885	1296	1
25	-81	-13	2	0	0	0	0	0	0	0	-2	5	15	22	0	0	6	15	-110	-68	24	-84	-281	-119	-28	89	758	847	1
26Q	-13	3	3	0	8	6	0	7	-5	-4	1	-8	3	12	-2	2	20	31	12	5	3	1	4	0	4	121	32	153	0
27Q	-45	-15	-6	0	0	0	-1	-3	-13	0	0	0	3	12	39	28	8	0	0	0	-34	-26	-13	-11	-3	90	167	257	0
28	-17	-13	-62	-157	-10	14	-17	2	3	12	9	33	79	100	92	120	48	57	-19	-139	-63	-300	-47	-85	-15	569	929	1498	1
29D	-156	-348	-469	-330	-133	-110	19	-7	67	30	78	114	249	255	192	120	48	17	-524	-404	-193	-250	-487	-535	-115	1189	3946	5135	2
30D	-836	-888	-489	-590	-288	-205	-171	53	157	110	-22	19	-1	-5	-8	-5	8	19	-2	4	2	22	8	0	-130	402	3510	3912	2
M	-138	-142	-114	-83	-42	-30	-9	4	15	19	28	53	68	78	94	70	68	37	-30	-55	-94	-127	-157	-139	-26	599	1254	1853	1.1
MPS	0	1	0	1	2	6	6	9	19	21	32	55	69	79	94	71	68	40	18	4	2	1	1	0					
MNS	138	143	114	84	44	36	15	5	4	2	4	2	1	1	0	1	0	3	47	58	96	127	157	139					

Tromsö. Horizontal Intensity. H = 11500 + Tabular Quantities expressed in Gamma. *Gr. M. T.*

HOURLY MEAN VALUES

OCTOBER 1930

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	88	86	90	92	90	80	40	25	85	140	150	270	210	95	210	160	125	75	-30	135	90	-20	-220	-200	78	705	85
2	-50	-55	80	90	100	85	70	90	80	62	65	120	170	145	155	145	160	145	30	85	98	-120	-190	60	68	675	86
3D	55	65	15	20	-20	80	100	75	57	85	150	250	135	275	230	135	180	-30	-125	-130	-450	-40	15	-210	38	1349	85
4	-190	20	75	70	60	45	90	90	65	100	130	240	260	240	250	190	160	90	100	-140	-10	5	-260	-180	63	840	86
5	-60	60	90	90	80	80	35	30	30	110	160	210	150	220	210	230	150	50	105	-30	-170	-160	-100	-130	60	750	85
6	-155	-30	10	50	100	75	90	100	90	90	75	85	130	130	110	175	145	140	50	-230	-120	-130	-180	-60	31	645	85
7	-5	20	80	98	95	105	105	85	70	82	75	70	100	120	165	180	195	140	-120	-300	-90	-280	-375	-50	23	850	84
8	60	60	10	-15	-50	0	40	160	120	115	170	225	310	310	350	300	230	10	10	-200	-100	70	85	65	97	1000	84
9	20	-70	-115	30	90	80	75	60	65	100	70	105	110	185	85	82	100	125	90	70	-90	-270	-410	30	26	830	85
10	100	95	89	90	90	88	84	81	70	67	63	60	75	85	92	117	160	95	90	-140	-10	-15	78	60	69	470	81
11Q	30	35	87	83	78	90	85	75	67	70	90	95	110	95	125	133	140	140	70	85	75	70	70	83	87	170	83
12	87	88	89	89	90	87	82	73	70	68	68	63	87	100	93	90	95	98	90	40	-70	50	82	87	75	260	85
13Q	89	90	90	90	90	89	84	80	74	69	69	73	87	100	102	103	122	140	138	100	48	35	25	25	84	160	85
14D	50	70	47	72	88	40	85	90	93	88	87	85	105	87	130	185	215	140	105	-30	-360	-240	-75	-65	46	710	85
15	5	92	110	112	100	93	89	83	80	76	72	74	79	79	80	83	82	81	80	82	84	83	75	63	81	210	83
16Q	40	35	70	80	83	84	85	82	72	68	62	60	60	70	85	90	82	84	81	65	18	32	68	88	69	95	79
17D	89	90	91	91	89	78	40	60	138	150	180	245	110	20	0	8	-220	-310	-150	-60	-140	-120	-180	-210	4	925	86
18	-10	100	102	50	65	90	90	90	80	85	120	130	130	115	128	150	162	160	115	50	10	15	35	5	86	265	86
19	105	20	60	65	100	95	90	80	60	65	82	90	92	87	82	86	85	115	117	70	-125	-115	-110	-115	49	510	84
20	-240	-270	-50	70	75	90	90	100	80	150	90	95	115	90	120	130	125	100	-140	-130	65	-40	-185	-350	8	800	87
21	-120	10	60	70	25	70	100	65	95	90	85	83	85	82	95	98	125	130	-140	5	50	-45	75	88	53	450	84
22	85	83	82	81	81	91	90	89	79	72	70	75	78	90	88	102	145	80	115	150	118	82	72	32	89	200	85
23Q	80	88	80	85	84	90	97	90	83	79	75	95	78	86	89	91	110	160	130	115	60	10	50	83	87	330	86
24Q	88	90	89	90	91	90	89	84	80	80	80	80	80	88	90	90	97	110	125	103	130	105	87	85	93	75	88
25	70	20	15	70	91	92	87	84	79	77	78	82	90	100	120	205	160	110	-30	15	-5	-20	20	-310	54	1110	86
26D	-530	-450	-270	-230	5	90	55	50	70	130	145	260	120	45	250	240	130	115	-20	-330	-300	-105	-340	-640	-63	1180	86
27D	-440	20	75	-10					50	135	175	250	200	160	280	140	30	90	-290								
28																											
29																											
30													130	190	170	160	50	-30	-110	-220	-360	-30	30	60			
31	75	88	80	60	70	80	85	92	95	97	135	230	155	100	160	155	170	110	40	-10	-200	-380	-240	-180	45	1090	85
M	-21	20	48	58	72	80	80	80	78	93	103	136	126	122	143	140	121	85	18	-28	-63	-56	-71	-64	55	616	85
QM	86	88	89	88	88	87	84	81	77	74	74	76	79	81	65	87	89	90	90	90	69	88	87	85			

NOVEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	-130	5	92	95	100	100	95	110	100	130	140	160	260	230	220	245	165	0	65	5	30	60	80	81	102	600	85
2	62	72	85	88	89	90	88	85	79	77	78	80	87	92	200	255	210	93	74	71	80	77	28	-145	87	720	83
3	-200	25	62	81	89	90	92	91	79	77	79	80	81	83	86	87	92	96	122	107	92	77	80	81	72	525	85
4D	89	80	80	67	88	102	98	95	55	80	130	320	200	210	145	98	75	72	74	80	72	-130	-140	-115	80	710	84
5	-30	60	80	88	90	88	87	82	79	79	90	70	77	88	98	118	110	123	120	-130	-120	-140	-10	60	52	600	84
6	90	86	67	93	101	93	87	85	82	78	81	90	82	90	91	94	98	91	90	88	86	80	63	78	86	75	85
7	87	89	90	90	89	90	88	86	83	80	83	85	87	88	86	88	92	118	105	55	120	80	78	82	88	215	86
8	90	82	86	88	90	91	89	86	85	73	75	86	90	102	120	180	240	235	190	75	-10	80	80	12	101	420	86
9	-110	-195	-50	50	85	110	120	97	88	75	58	105	105	110	105	133	130	170	150	112	85	-5	57	50	68	530	84
10	82	70	83	88	89	87	57	70	88	82	85	80	80	83	85	95	91	92	88	82	88	90	60	-70	76	340	84
11	60	90	87	85	83	82	81	80	78	75	76	77	78	79	80	81	81	82	82	82	90	80	75	50	79	100	81
12Q	3	35	60	78	84	87	85	81	79	78	79	80	81	81	82	82	83	85	94	82	81	81	81	81	76	115	82
13	81	82	84	85	87	84	83	81	79	78	80	82	84	83	86	88	89	91	97	102	115	0	25	90	81	185	84
14D	80	-70	15	60	73	97	90	93	87	80	90	95	86	85	92	102	180	50	-35	-70	-220	-140	-5	85	41	780	83
15	30	-30	-160	-20	10	70	115	100	85	80	95	100	85	82	88	102	83	92	80	85	78	60	80	18	59	440	83
16	50	72	80	70	81	83	80	80	78	38	73	75	83	82	80	85	95	108	142	133	110	80	5	60	81	270	81
17	-40	62	90	70	80	90	92	70	90	88	105	90	70	78	82	88	90	90	102	108	110	55	62	76	79	250	81
18	60	87	68	82	81	80	81	75	71	70	75	80	82	83	84	140	110	100	92	102	-95	-150	75	78	67	505	82
19Q	68	72	75	78	81	82	80	77	70	70	70	72	80	82	82	80	90	110	108	97	80	75	68	70	80	95	78
20Q	73	78	81	85	82	80	86	83	78	72	70	75	78	80	81	82	88	92	87	87	71	63	58	52	78	60	81
21Q	81	81	83	84	83	81	80	79	77	75	74	74	77	79	80	81	81	82	82	83	82	0	58	82	76	135	80
22Q	81	80	81	81	82	83	83	81	80	79	78	79	81	83	84	85	87	90	90	91	90	86	82	81	83	20	83
23	80	80	81	82	82	85	83	82	81	79	773	75	90	87	95	105	145	140	100	60	-90	-170	-100	-60	57	480	83
24D	-90	-230	-275	-325	-270	-60	110	105	60	50	105	230	210	150	205	230	80	180	0	30	20	-40	-100	-40	14	700	83
25D	-90	-85	-60	-40	-50	-10	120	120	120	190	160	190	150	170	170	150	5	10	-20	-10	40	-20	-60	-70	45	370	84
26D	-95	-50	85	85	90	120	130	145	135	135	140	80	80	90	80	90	115	-50	20	-80	-150	-20	-75	-100	41	590	84
27	-170	-150	15	50	45	50	55	40	60	55	70																
28																											
29														110	105	145	150	87	82	-10	-40	-90	-45	-10			
30	70	72	80	90	87	90	95	85	70	80	85	87	135	130	90	82	120	140	160	65	55	40	35	10	85	215	84
M	13	23	45	57	64	79	90	87	82	83	89	104	103	104	106	118	110	95	87	57	34	9	25	24	71	372	83
QM	81	81	83	84	85	86	84	83	80	78	78	80	81	83	84	86	87	87	87	86	84	82	81	81			

DECEMBER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		M	R	QM
1	-80	-50	10	60	90	100	92	83	75	72	90	88	100	98	118	111	117	92	86	84	82	80	60	65	72	285	84
2	73	80	81	85	88	90	85	82	78	77	80	83	82	80	80	83	87	89	83	82	30	52	80	89	79	160	85
3D	88	90	102	110	108	100	100	97	85	83	130	225	360	85	-65	-130	-150	-65	-50	-105	-110	-230	-165	-300	16	850	91
4D	-380	-340	-370	-390	-400	-220	-160	-210	0	110	190	180	220	190	270	240	110	112	110	85	120	105	90	70	-11	880	83
5	-180	55	98	82	78	80	79	79	80	79	79	80	81	81	82	81	80	79	82	110	110	92	90	73	72	450	79
6	71	70	73	82	81	80	80	80	81	87	85	87	88	90	90	89	90	105	50	110	120	115	70	80	86	220	84
7	-95	-70	70	87	98	95	90	87	82	80	79	84	88	120	150	190	118	90	80	85	88	73	70	72	80	440	84
8Q	70	80	81	81	82	84	86	85	85	83	83	83	90	83	82	85	88	90	90	91	90	88	83	82	84	25	84
9	81	80	80	82	86	89	90	90	90	89	87	85	80	79	87	95	112	65	120	108	90	75	68	30	85	240	86
10	62	72	81	89	90	91	91	88	85	82	83	87	82	88	108	112	100	90	89	87	85	90	88	82	88	110	87
11	65	55	87	88	92	95	91	89	87	84	83	83	81	82	85	88	89	90	102	100	88	75	60	52	83	90	86
12	74	82	88	89	91	92	91	90	89	88	85	87	89	90	92	165	208	200	190	170	30	-195	-170	-10	79	570	88
13D	2	15	-105	20	90	100	100	90	85	95	90	100	140	175	128	190	150	170	205	150	100	50	-10	50	91	460	87
14	78	68	75	92	97	90	88	90	88	82	87	90	88	100	118	112	160	195	160	100	140	100	40	-5	97	270	86
15	50	90	82	88	85	87	88	88	85	83	82	80	82	85	97	202	115	117	110	120	140	130	113	85	96	220	84
16Q	78	80	73	82	90	87	87	83	80	80	84	82	80	81	84	87	84	90	102	110	90	80	79	79	85	95	84
17Q	80	80	81	81	82	87	84	83	83	81	82	80	82	86	88	88	87	89	89	90	90	92	80	72	84	45	84
18Q	80	78	81	82	83	83	80	79	80	85	83	85	87	90	90	88	89	92	107	110	105	95	87	83	88	45	85
19	80	80	81	81	87	88	88	87	84	82	82	90	90	88	130	145	115	100	92	83	79	65	-110	40	80	400	84
20D	85	81	80	80	83	88	89	84	81	82	83	78	81	85	95	160	130	-10	-110	-230	150	80	65	-110	58	930	84
21D	-190	-110	10	80	60	110	55	80	110	240	120	130	160	105	170	165	70	60	10	60	20	-130	-330	-30	43	760	83
22	95	40	55	50	40	100	110	93	77	78	80	80	82	95	100	190	150	195	10	-90	70	-20	-120	-210	56	700	82
23	-20	75	85	90	80	90	85	80	95	85	73	95	92	100	98	140	175	170	120	78	0	-180	-135	-160	59	610	82
24	-50	67	35	85	100	95	88	90	98	82	90	92	78	70	160	175	195	120	10	40	40	50	50	68	85	540	83
25	40	28	70	87	100	90	105	100	95	92	98	102	115	92	90	93	88	83	90	60	90	60	-30	0	77	185	82
26	60	80	80	82	83	80	72	60	77	82	85	80	77	80	92	98	130	60	45	88	60	40	-50	-5	68	310	82
27	75	88	78	72	75	82	81	80	79	75	78	70	87	80	78	88	103	92	100	132	70	-80	-55	35	69	380	81
28	80	83	80	82	77	87	88	82	78	77	78	78	79	77	78	79	79	79	79	78	77	75	71	69	79	35	79
29	71	74	78	80	82	80	80	79	77	79	79	80	81	83	87	90	93	122	150	130	110	70	10	90	86	480	81
30	100	90	86	84	83	83	84	83	80	77	81	91	82	86	82	100	92	92	118	102	63	82	93	87	88	80	81
31Q	80	78	78	79	78	81	81	82	82	82	82	83	83	83	88	89	91	102	102	91	89	83	79	78	84	70	83
M	23	44	54	65	69	80	79	76	82	88	89	94	103	97	101	113	105	99	85	75	78	38	11	23	74	353	84
QM	79	80	82	84	86	87	86	85	83	82	81	82	83	84	85	86	87	88	88	87	84	83	80	80			

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

HOURLY MEAN VALUES.

OCTOBER 1930

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	DIURNAL SUM PS	NS	AS	C
1	1	-2	1	2	2	-8	-41	-52	12	69	78	195	130	11	123	71	34	-17	-123	42	-2	-110	-307	-285	-7	771	944	1715	1
2	-137	-143	-9	0	12	0	-11	13	7	-9	-7	45	90	61	68	56	69	53	-63	-8	6	-210	-277	-25	-18	480	899	1379	1
3D	-32	-23	74	-70	-108	-5	19	-2	-16	14	78	175	55	191	143	46	89	-122	-218	-223	-542	-130	-72	-305	-47	810	1942	2752	2
4	-277	-68	-14	-20	-28	-40	9	13	-8	29	58	165	180	156	163	101	69	-2	7	-233	-102	-85	-347	-265	-23	950	1499	2449	2
5	-148	-29	0	2	-7	-6	-47	-48	-44	39	89	136	71	137	124	142	60	-41	13	-122	-261	-249	-187	-216	-25	813	1405	2218	1
6	-243	-119	-80	-40	12	-11	8	22	16	19	4	11	51	47	24	87	55	49	-42	-332	-211	-219	-267	-146	-54	405	1710	2115	1
7	-93	-69	-10	8	6	18	22	1	-4	11	4	-4	22	38	80	92	106	50	-211	-391	-180	-369	-463	-137	-61	458	1931	2389	2
8	-28	-29	-80	-105	-139	-87	-43	81	46	43	98	150	231	227	264	211	140	-80	-81	-291	-189	-17	0	-20	13	1491	1189	2680	2
9	-67	-158	-204	-60	0	-8	-9	-19	-10	27	-4	28	29	101	-2	2	10	35	-1	-21	-150	-359	-498	-57	-59	232	1657	1889	2
10	13	7	0	0	0	0	0	3	-2	0	0	-7	3	9	13	35	74	10	4	-226	-95	-99	-4	-21	-12	171	454	625	1
11Q	-50	-46	5	2	-2	11	8	0	-7	-4	14	17	30	12	39	45	51	50	-21	-6	-15	-19	-18	-4	4	284	192	476	0
12	0	0	0	0	0	0	0	-2	0	0	0	-10	8	16	6	0	2	6	-1	-51	-160	-39	-6	0	-10	38	269	307	0
13Q	0	0	0	0	0	0	0	0	0	0	0	0	9	18	17	15	33	50	47	9	-42	-54	-63	-62	-1	198	221	419	0
14D	-38	-19	-43	-18	-1	-47	2	11	19	17	16	11	27	5	45	97	126	50	14	-121	-450	-329	-163	-152	-39	440	1381	1821	1
15	-83	3	20	22	11	6	5	0	0	0	0	0	2	0	0	2	0	-2	-3	0	-1	0	-7	-19	-2	71	115	186	0
16Q	-41	-46	-11	-1	2	2	3	2	-2	-1	-3	-6	-8	0	10	10	0	1	-2	-19	-67	-53	-18	1	-10	31	278	309	0
17D	0	0	0	0	0	-9	-45	-21	61	77	107	169	30	-63	-85	-80	-309	-400	-241	-151	-230	-209	-268	-297	-82	444	2408	2852	2
18	-97	11	11	-41	-25	2	4	8	2	11	46	53	50	32	43	62	73	70	24	-41	-80	-74	-53	-82	0	502	493	995	0
19	18	-68	-29	-26	10	5	2	-4	-19	-10	6	12	13	6	0	3	0	29	30	-17	-211	-200	-194	-198	-35	134	976	1110	1
20	-326	-358	-140	-21	-16	0	2	16	0	73	12	16	34	6	34	42	36	10	-231	-221	-25	-129	-272	-435	-79	281	2174	2455	2
21	-204	-76	-28	-19	-65	-19	13	-18	16	14	10	7	6	0	12	14	40	44	-227	-82	-36	-130	-12	7	-31	183	916	1099	1
22	5	2	1	-1	0	6	3	-1	-10	-7	-3	0	0	4	-1	12	56	-12	23	59	29	-4	-12	-51	4	200	102	302	0
23Q	-2	7	0	2	-2	0	5	0	-1	1	-1	18	0	0	0	0	19	68	38	24	-30	-79	-38	-4	1	182	157	339	0
24Q	0	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	18	33	12	40	16	-1	-2	5	126	4	130	0
25	-18	-69	-75	-20	0	0	0	0	0	0	0	2	9	16	34	117	71	20	-121	-76	-95	-109	-67	-395	-32	269	1045	1314	2
26D	-616	-538	-360	-321	-86	0	-25	-34	-10	53	67	181	39	-39	164	152	41	25	-111	-431	-390	-194	-427	-725	-149	722	4297	5019	2
27D	-525	-67	-14	-100					-31	57	97	171	119	74	194	52	-59	0	-381										2
28																													
29																													
30													49	107	95	73	-38	-119	-199	-308	-446	-114	-53	-22					2
31	-8	4	-5	-27	-19	-9	-3	7	13	18	56	150	74	17	75	68	82	21	-49	-98	-286	-464	-323	-262	-40	585	1553	2138	2
M	-107	-68	-41	-30	-16	-7	-4	-1	1	19	29	60	47	41	58	53	32	-5	-72	-118	-152	-144	-158	-149	-30	417	1119	1536	1.1
MPS	1	1	1	1	2	2	4	6	7	24	30	61	47	45	61	55	46	24	8	5	3	1	0	0					
MNS	108	69	42	31	18	9	8	7	6	5	1	1	0	4	3	3	14	29	80	123	155	145	158	149					

NOVEMBER

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	DIURNAL SUM PS	NS	AS	C
1	-212	-78	7	8	11	10	7	25	18	51	61	80	179	147	135	158	77	-89	-23	-81	-54	-22	0	0	17	974	559	1533	1
2	-20	-11	0	0	0	0	0	0	-1	-2	-2	0	4	8	115	168	124	8	-10	-11	0	-1	-52	-226	4	427	336	763	1
3	-282	-58	-23	-6	1	0	2	4	-3	-2	0	0	0	0	0	0	4	7	34	21	9	-5	0	0	-13	82	379	461	1
4D	7	-3	-4	-20	-1	13	10	10	-27	1	51	240	119	127	60	11	-13	-17	-15	-7	-13	-212	-221	-196	-4	649	749	1398	1
5	-112	-23	-3	0	0	0	0	0	0	0	11	-10	-4	5	13	31	22	34	31	-218	-206	-223	-91	-21	-32	147	911	1058	1
6	8	3	-18	6	12	3	0	0	0	0	0	9	0	-3	1	1	6	0	0	0	0	0	-15	-2	1	49	38	87	0
7	4	2	0	0	-1	0	0	0	0	0	3	4	5	4	0	0	2	27	15	-33	34	-4	-5	0	2	100	43	143	0
8	8	0	0	0	0	0	0	0	0	-10	-5	7	8	19	35	93	152	146	101	-13	-96	-4	-3	-69	15	569	200	769	1
9	-191	-277	-134	-36	-2	22	34	13	7	-5	-21	25	24	28	21	47	43	82	62	25	-1	-89	-25	-31	-16	433	812	1245	1
10	1	-8	0	0	0	0	-30	-16	4	0	5	0	0	0	-1	5	0	4	5	0	6	9	-21	-151	-8	39	227	266	0
11	-22	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	-1	-5	-30	-2	18	58	76	0
12Q	-78	-47	-23	-5	0	1	2	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	-6	14	153	167	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	10	18	33	-81	-56	9	-3	70	139	209	0
14D	0	-152	-68	-25	-13	13	7	0	7	2	11	15	5	1	7	15	91	-39	-122	-154	-302	-221	-86	5	-42	179	1182	1361	1
15	-50	-111	-242	-104	-75	-14	33	19	6	2	16	20	3	-1	3	14	-6	3	-7	3	-4	-21	-1	-62	-24	122	698	820	1
16	-30	-8	0	-11	0	1	-2	0	1	-7	-5	-5	2	0	-3	0	8	20	55	48	27	-2	-76	-20	0	162	169	331	0
17	-120	-18	9	-11	-2	8	11	-10	13	13	17	10	-11	0	0	3	3	2	15	24	29	-25	-16	0	-2	157	213	370	0
18	-18	7	-13	1	-1	-2	1	-2	-3	-4	-2	0	0	0	0	54	22	11	0	13	-181	-233	-5	1	-15	110	464	574	1
19Q	-9	-5	-3	0	0	0	0	0	-3	0	0	0	5	4	2	-2	6	25	24	16	2	0	-5	-3	2	84	30	114	0
20Q	-2	0	0	4	0	-3	1	0	0	-3	-2	0	0	0	1	1	6	7	-1	0	-12	-17	-22	-28	-3	20	90	110	0
21Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-82	-24	0	-4	0	106	106	0
22Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-2	0	2	2	3	3	0	0	0	0	10	3	13	0
23	0	0	0	0	0	0	0	0	0	0	-4	-4	9	14	10	18	58	52	12	-27	-176	-255	-182	-141	-26	173	789	862	1
24D	-171	-311	-357	-407	-355	-145	27	23	-21	-29	27	151	129	67	121	145	-6	92	-87	-56	-65	-124	-183	-122	-69	783	2441	3224	1
25D	-171	-166	-142	-124	-136	-97	34	36	38	110	81	110	69	87	86	65	-82	-78	-108	-96	-45	-104	-143	-152	-39	716	1644	2360	1
26D	-176	-131	3	1	4	32	43	60	52	55	60	-1	-2	6	-25	4	28	-138	-69	-167	-235	-104	-158	-182	-43	348	1388	1736	1
27	-251	-231	-67	-34	-41	-38	-32	-45	-23	-25	-3																		
28																													
29														26	20	60	64	1	-3	-94	-123	-172	-127	-91					
30	-10	-8	-1	7	1	1	5	-2	-14	-1	4	5	52	45	4	-5	32	51	70	-23	-31	-44	-48	-72	1	277	259	536	0
M	-68	-58	-38	-27	-21	-7	6	4	2	5	11	24	22	21	22	32	23	8	0	-29	-50	-73	-56	-57	-12	249	521	770	0.5
MPS	1	1	1	1	1	4	8	7	5	8	12	25	23	21	23	32	27	19	15	6	5	0	0	1					
MNS	69	59	39	28	22	11	2	3	3	3	1	1	1	0	1	0	4	11	15	35	55	73	56	58					

DECEMBER

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	DIURNAL SUM PS	NS	AS	C
1	-161	-130	-71	-23	4	11	2	-4	1	-9	9	6	18	15	34	25	30	4	-1	-1	0	0	-20	-15	-12	159	435	594	0
2	-7	0	-1	0	0	0	-2	-2	-4	-3	-1	1	0	-1	-1	0	0	0	-7	-8	-59	-37	-9	0	-6	1	142	143	0
3D	0	0	9	14	9	0	0	0	-9	-8	40	135	270	-5	-155	-220	-240	-155	-140	-193	-196	-315	-249	-383	-75	477	2268	2745	2
4D	-461	-420	-451	-473	-486	-309	-250	-297	-84	29	109	99	138	108	188	158	27	29	27	3	39	25	11	-8	-94	990	3239	4229	2
5	-256	-20	22	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	30	14	15	0	-7	114	276	390	1
6	0	-3	-3	-3	0	0	0	0	0	6	2	1	0	0	0	0	1	16	-40	22	34	31	-13	-3	2	113	65	178	0
7	-178	-152	-14	1	11	6	0	0	0	0	-3	0	5	37	66	105	33	4	-6	-1	4	-8	-8	-2	-4	272	372	644	1
8Q	-8	0	0	0	0	2	2	-1	0	-2	0	0	7	0	-2	0	0	0	0	2	2	2	0	0	0	17	13	30	0
9	0	0	0	0	0	0	0	0	0	0	0	0	-4	-6	1	7	23	-25	31	20	5	-9	-15	-52	-1	87	111	198	0
10	-22	-13	-6	0	0	0	0	0	0	0	0	4	-2	3	22	24	11	0	0	0	0	6	5	0	1	75	43	118	0
11	-19	-30	0	-1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	13	12	3	-9	-23	-30	-3	32	112	144	0
12	-10	-3	0	0	0	0	0	0	0	0	0	0	0	0	2	75	118	110	100	82	-87	-281	-254	-93	-9	487	698	1185	1
13D	-81	-69	-192	-69	-1	9	10	1	-2	10	5	16	56	89	41	102	61	80	115	62	14	-34	-93	-32	4	671	573	1244	1
14	-4	-16	-12	2	15	-1	-2	1	2	-1	2	6	5	15	32	25	72	106	71	13	55	17	-42	-86	11	429	164	593	0
15	-31	9	0	5	0	0	0	0	0	0	0	0	0	2	13	15	26	27	22	34	56	48	33	6	11	296	31	327	0
16Q	0	0	-10	-4	2	0	0	0	0	0	4	1	-1	0	0	0	-5	0	12	22	5	-2	0	0	1	46	22	68	0
17Q	0	0	0	0	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	-1	-8	0	12	10	22	0
18Q	0	-2	0	0	0	0	-4	-4	-3	2	0	0	0	0	0	-1	1	4	20	24	20	11	4	1	3	87	14	101	0
19	0	0	0	-2	1	0	0	0	0	-2	0	9	8	4	44	58	27	11	3	-4	-5	-16	-190	-39	-4	165	258	423	1
20D	5	0	0	0	0	1	3	0	0	0	1	-4	-2	1	10	74	43	-98	-198	-317	64	-1	-15	-189	-26	202	824	1026	2
21D	-269	-189	-71	-2	-24	24	-30	-4	28	159	40	49	78	22	85	79	-17	-28	-78	-27	-64	-211	-410	-109	-40	564	1533	2097	1
22	16	-39	-26	-33	-45	15	26	11	-3	0	0	0	0	12	15	104	63	107	-78	-177	-14	-101	-199	-288	-26	369	1003	1372	1
23	-97	-3	5	8	-4	5	0	-3	14	5	-6	15	11	17	14	55	89	83	33	-8	-83	-260	-213	-237	-23	354	914	1268	1
24	-127	-11	-45	3	16	10	3	7	17	2	11	12	-3	87	76	90	109	33	-77	-46	-43	-30	-28	-9	2	476	419	895	1
25	-37	-50	-10	5	16	5	20	27	14	12	19	22	34	9	6	8	2	-4	-3	-26	7	-20	-108	-77	-5	206	335	541	1
26	-18	0	0	0	0	-4	-12	-22	-3	3	6	0	-4	-2	9	14	15	-26	-41	3	-22	-39	-128	-82	-14	80	403	483	0
27	-3	8	-2	-10	-8	0	0	0	0	-3	0	-9	7	-2	-5	4	18	6	14	47	-12	-159	-133	-42	-12	104	388	492	0
28	2	4	0	0	-7	3	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	-5	-7	0	17	21	38	0
29	-5	-3	0	0	0	0	0	0	-1	0	0	0	0	0	4	6	8	37	66	48	30	-9	-67	14	5	213	85	298	1
30	24	13	7	3	0	0	0	0	0	-2	2	11	1	4	-1	16	7	6	32	17	-9	3	15	10	7	171	12	183	0
31Q	4	1	0	0	-3	-1	-1	0	0	0	0	0	-1	-2	0	0	0	11	11	0	0	0	0	0	1	27	8	35	0
M	-56	-36	-28	-19	-17	-7	-7	-9	-1	6	8	12	20	13	16	27	18	11	-3	-12	-6	-45	-69	-57	-10	236	477	713	0.5
MPS	2	1	1	1	2	3	2	1	2	7	8	12	21	14	21	34	25	22	18	14	12	5	3	1					
MNS	58	37	29	20	19	10	9	10	3	1	0	0	1	1	5	7	7	11	21	26	18	50	72	58					

Tromsö **RESUMING TABLES** *Gr. M. T.*

Diurnal Variation
QUIET VALUES

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

Declination. Unit Minutes. + West.

1930		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
JANUARY	-2.2	-2.7	-2.0	-1.7	-1.4	-1.1	-0.5	-0.4	0.1	1.2	1.9	2.6	3.0	2.9	2.0	2.2	2.2	1.3	0.9	-0.2	-1.3	-1.9	-1.8	-1.9
FEBRUARY	-1.7	-1.4	-1.3	-2.0	-1.7	-1.6	-1.2	-1.0	-0.4	0.8	1.6	2.7	2.1	1.7	1.5	1.6	1.8	2.0	1.5	0.2	-0.6	-1.2	-1.5	-1.6
MARCH(1-10)	-0.1	-0.6	-0.6	-1.0	-0.9	-1.4	-1.9	-2.8	-1.8	-0.3	1.0	1.9	3.1	2.8	2.4	0.5	0.1	0.4	0.5	-0.2	0.2	-0.5	-0.1	-0.5
APRIL	-4.1	-4.0	-4.4	-4.2	-5.5	-6.1	-5.0	-3.5	-1.8	2.9	4.5	6.4	7.4	5.6	4.5	3.8	3.0	2.3	1.6	0.7	-0.4	-0.4	-1.2	-2.5
MAY	-4.6	-6.5	-7.3	-7.7	-7.3	-5.7	-4.4	-3.0	-1.0	1.1	4.9	5.8	5.9	5.8	5.1	4.7	4.1	3.7	3.6	2.9	1.7	1.3	-0.5	-1.6
JUNE(12-30)	-3.1	-4.4	-5.6	-6.5	-6.6	-5.7	-4.2	-2.4	-0.8	0.6	2.5	6.8	5.9	5.0	4.2	3.0	2.5	3.4	2.8	2.2	1.5	0.9	0.2	-2.5
JULY	-4.2	-4.4	-5.3	-5.5	-5.9	-4.8	-3.6	-2.2	-0.7	1.2	2.8	4.2	4.7	5.2	4.5	3.7	3.7	3.5	3.0	2.2	1.2	-0.3	-1.3	-2.8
AUGUST	-2.9	-3.9	-5.0	-5.5	-5.5	-5.2	-4.3	-3.1	-1.7	0.6	3.0	5.1	5.3	5.7	4.4	3.8	2.8	3.0	2.7	2.1	1.3	0.5	-1.0	-2.2
SEPTEMBER	-2.1	-2.7	-3.2	-3.5	-3.8	-3.1	-2.5	-1.5	0.0	1.5	3.0	4.0	4.5	3.7	2.8	1.7	1.1	0.7	1.0	0.4	0.3	-0.6	-1.1	-1.6
OCTOBER	-1.8	-1.8	-1.3	-1.6	-1.4	-1.3	-1.1	-0.5	0.3	1.0	1.9	2.5	2.4	2.0	1.6	1.0	0.6	0.7	0.5	0.0	-0.4	-0.7	-1.4	-1.5
NOVEMBER	-0.9	-1.0	-1.1	-0.8	-1.1	-0.8	-0.8	-0.4	0.0	0.5	1.3	1.9	1.9	1.9	1.3	1.1	1.1	0.3	0.1	-0.5	-0.8	-0.9	-1.0	-1.0
DECEMBER	-1.1	-0.9	-0.9	-0.7	-0.3	-0.4	-0.2	0.0	0.3	0.8	0.9	1.3	1.5	1.4	1.0	0.6	0.2	0.0	-0.4	-0.3	-0.6	-0.6	-0.9	-1.1
MEAN	-2.4	-2.9	-3.2	-3.4	-3.5	-3.1	-2.5	-1.8	-0.6	1.0	2.5	3.8	4.0	3.6	2.9	2.3	1.9	1.8	1.5	0.8	0.2	-0.4	-0.9	-1.7

Declination. Unit Gamma. + West.

JANUARY	-8	-9	-7	-6	-5	-4	-2	-1	0	4	6	9	10	10	7	7	7	4	3	-1	-5	-7	-6	-7
FEBRUARY	-5	-4	-4	-6	-5	-5	-4	-3	-1	2	5	8	6	5	4	5	5	6	4	1	-2	-4	-4	-5
MARCH (1-10)	0	-2	-2	-3	-3	-5	-6	-9	-6	-1	3	6	10	9	8	2	0	1	2	-1	1	-2	0	-2
APRIL	-12	-12	-13	-12	-16	-18	-15	-10	-5	9	13	19	22	18	13	11	9	7	5	2	-1	-1	-4	-8
MAY	-16	-22	-25	-26	-25	-19	-15	-10	-4	4	16	19	20	19	17	16	14	12	12	10	6	4	-2	-6
JUNE(12-30)	-11	-15	-19	-22	-22	-19	-14	- 8	-3	2	8	23	20	17	14	10	8	12	9	7	5	3	1	-8
JULY	-14	-15	-18	-18	-20	-16	-12	- 7	-2	4	10	14	16	18	15	13	13	12	10	8	4	-1	-4	-9
AUGUST	-10	-13	-17	-19	-19	-18	-15	-10	-6	2	10	17	18	19	15	13	9	10	9	7	4	2	-3	-7
SEPTEMBER	- 7	- 9	-11	-12	-13	-10	- 8	- 5	0	5	10	14	15	13	10	6	4	3	4	1	1	-2	-4	-5
OCTOBER	- 6	- 6	-4	-5	-5	-4	-4	-2	1	3	6	8	8	7	5	3	2	2	2	0	-1	-2	-5	-5
NOVEMBER	- 3	- 3	-4	-3	-4	-3	-3	-1	0	2	4	6	6	6	4	4	4	1	0	-2	-3	-3	-3	-3
DECEMBER	- 4	- 3	-3	-2	-1	-1	-1	0	1	3	3	4	5	5	3	2	1	0	-1	-1	-2	-2	-3	-4
MEAN	-8.0	-9.4	-10.6	-12.2	-11.5	-10.2	-8.3	-5.5	-2.1	3.3	7.9	12.3	13.0	12.2	9.6	7.7	6.3	5.9	4.9	2.6	0.6	-1.3	-3.1	-5.7

Horizontal Intensity. Unit Gamma.

JANUARY	0	1	1	2	3	2	1	-1	-2	-4	-5	-7	-5	-2	1	3	4	4	3	5	3	1	0	-1
FEBRUARY	1	2	2	3	4	3	2	-1	-3	-9	-12	-13	-10	-5	0	3	6	5	4	4	3	2	0	0
MARCH	5	5	7	7	5	4	-2	-7	-16	-19	-19	-17	-10	-6	-2	3	8	11	11	12	11	8	6	3
APRIL	0	-2	4	5	2	-2	-13	-16	-20	-27	-23	-9	1	10	9	14	12	11	14	16	12	8	4	-1
MAY	2	6	2	-1	-2	-8	-9	-20	-23	-23	-21	-18	-10	-5	4	9	14	20	26	21	18	13	9	3
JUNE	0	1	3	5	2	-4	-10	-13	-17	-20	-21	-17	-11	-2	0	7	12	20	25	24	14	7	0	-2
JULY	5	6	8	6	1	-5	-12	-19	-24	-27	-25	-19	-8	1	8	14	17	19	19	18	11	7	6	3
AUGUST	2	5	5	7	5	2	-5	-13	-20	-25	-23	-17	-10	-3	3	9	12	14	15	13	7	5	2	1
SEPTEMBER	1	2	3	5	4	1	-4	-9	-14	-17	-15	- 9	-6	-1	2	5	7	8	8	7	6	4	3	1
OCTOBER	1	3	4	3	3	2	-1	-4	-8	-11	-11	- 9	- 6	-4	0	2	4	5	5	5	4	3	2	0
NOVEMBER	-2	-2	0	1	2	3	1	0	-3	-5	-5	-3	-2	0	1	3	4	4	4	3	1	-1	-2	-2
DECEMBER	-5	-4	-2	0	2	3	2	1	-1	-2	-3	-2	-1	0	1	2	3	4	4	3	0	-1	-4	-4
MEAN	0.8	1.9	3.1	3.6	2.6	0.1	-4.2	-8.5	-12.6	-15.8	-15.3	-11.7	-6.5	-0.6	2.3	6.2	9.4	10.4	11.5	10.9	7.5	4.5	2.2	0.1

Monthly Means.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MEAN
DECLINATION.													
DIRECT VALUES. D = 4° W+. . .	12'4	10'9	(11'1)	8'8	10'8	(8'8)	6'5	6'6	3'9	4'4	3'9	4'1	7'7
QUIET VALUES. D_0= 4° W+. . .	13'5	12'5	(12'3)	12'2	11'5	(12'8)	9'1	8'3	5'8	5'7	5'5	5'3	9'5
RANGE	66'	84'	(49')	106'	72'	(82')	93'	88'	81'	88'	57'	57'	77'
QUIET RANGE	5'7	4'7	(5'9)	13'5	13'6	13'4	11'1	11'2	8'3	4'3	3'0	2'6	8'1
STORMINESS, MEAN	-4γ	-6γ	(-4γ)	-11γ	- 5γ	-14γ	-9γ	-5γ	-6γ	-4γ	-5γ	-4γ	-6γ
DIURNAL SUM PS γ	105	147	64	163	197	149	182	145	129	134	70	76	130
NS	191	284	157	439	349	488	406	268	282	231	197	173	189
AS	296	432	221	601	546	637	588	413	411	365	267	249	419
HORIZONTAL INTENSITY.													
DIRECT VALUES. H = 11500 γ +...	95γ	81γ	70γ	42γ	54γ	72γ	64γ	65γ	61γ	55γ	71γ	74γ	67γ
QUIET VALUES. H_0= 11500 γ +...	106γ	106γ	100γ	94γ	96γ	101γ	101γ	98γ	87γ	85γ	83γ	84γ	95γ
RANGE	414γ	541γ	559γ	747γ	657γ	646γ	667γ	639γ	636γ	616γ	372γ	353γ	571γ
QUIET RANGE	12γ	19γ	31γ	39γ	49γ	46γ	46γ	40γ	25γ	16γ	9γ	9γ	28γ
STORMINESS, MEAN	-11γ	-26γ	-29γ	-48γ	-43γ	-30γ	-37γ	-34γ	-26γ	-30γ	-12γ	-10γ	-26γ
DIURNAL SUM PS γ	293	445	603	661	607	719	492	423	599	417	249	236	479
NS	565	1051	1294	1838	1670	1458	1383	1171	1254	1119	521	477	1150
AS	858	1499	1897	2499	2277	2177	1875	1594	1853	1536	770	713	1725

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

Tromsö **RESUMING TABLES** *Gr. M. T.*

Local Noon = $10^h 44.2^m$ Gr.M.T.

Storminess.

Declination. Unit Gamma. + West.

1930		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JANUARY	PS	2	0	1	1	2	3	4	6	3	2	3	2	3	3	4	7	16	13	14	8	8	1	4	1
	NS	23	32	19	12	7	3	3	0	2	2	1	1	1	1	2	6	4	8	9	6	5	18	11	15
FEBRUARY	PS	0	1	0	0	0	1	5	6	7	5	6	6	9	14	16	10	7	17	8	8	10	4	5	4
	NS	39	33	36	24	14	8	3	1	2	1	1	0	2	1	3	5	7	6	9	9	9	19	23	28
MARCH	PS	0	0	0	0	3	1	2	6	4	2	3	10	0	2	5	1	2	1	5	6	5	1	0	0
	NS	20	22	14	8	1	1	0	0	0	1	0	0	1	3	3	6	1	7	3	5	15	11	24	16
APRIL	PS	0	0	0	0	1	2	4	5	5	0	1	4	6	8	9	14	23	30	24	20	16	5	5	0
	NS	77	67	74	46	14	9	4	3	5	10	6	13	7	2	2	0	3	4	1	1	5	17	25	43
MAY	PS	1	0	0	1	0	0	2	5	2	1	1	1	5	8	12	18	24	28	29	21	20	7	1	2
	NS	30	45	49	35	31	15	12	6	5	5	5	1	2	1	1	2	1	7	3	4	4	16	15	21
JUNE	PS	0	0	0	1	3	6	5	2	3	4	5	0	3	9	15	18	23	24	26	13	11	7	0	0
	NS	57	75	64	44	17	7	7	15	24	17	23	19	20	5	5	0	2	2	5	2	2	7	23	49
JULY	PS	0	0	0	0	2	3	1	4	3	2	3	6	9	10	9	12	19	20	27	25	19	8	3	2
	NS	48	62	52	37	20	13	11	9	6	7	9	10	6	5	3	3	1	1	1	3	8	13	17	36
AUGUST	PS	5	4	1	1	4	7	7	6	5	5	3	3	6	6	15	10	16	19	15	21	13	2	2	1
	NS	36	52	55	28	12	4	3	4	4	4	6	6	5	5	1	2	1	2	2	1	9	16	23	27
SEPTEMBER	PS	0	0	0	1	2	0	3	2	2	3	3	4	8	14	13	14	16	13	12	8	4	3	0	3
	NS	34	31	31	18	9	6	8	7	7	7	7	7	6	1	4	2	3	3	6	8	10	12	26	27
OCTOBER	PS	1	0	0	0	2	6	5	3	4	3	5	6	9	7	9	7	13	11	14	14	5	4	4	2
	NS	29	23	20	13	6	3	1	2	3	2	2	4	1	2	8	14	7	6	8	9	15	21	28	25
NOVEMBER	PS	0	0	0	0	1	4	4	3	2	2	2	1	3	4	4	3	6	10	6	8	3	1	0	2
	NS	22	24	20	14	7	3	2	1	2	3	1	3	2	1	1	4	15	4	3	4	11	15	21	20
DECEMBER	PS	1	0	0	0	1	2	2	2	2	1	3	1	2	3	6	14	9	6	5	5	5	1	2	0
	NS	17	18	16	7	3	3	2	0	2	1	1	0	3	3	2	4	10	6	5	7	5	15	18	21
MEAN	PS	1	0	0	0	2	3	4	4	4	3	3	4	5	7	10	11	15	16	16	13	10	4	2	1
	NS	36	40	38	24	12	6	5	4	5	5	5	5	5	3	3	4	5	5	5	5	8	15	21	28
	AS	37	40	38	24	14	9	9	8	9	8	8	9	10	10	13	15	20	21	21	18	18	19	23	29
	PS – NS	-35	-40	-38	-24	-10	-3	-1	0	-1	-2	-2	-1	0	4	7	7	10	11	11	8	2	-11	-19	-27

Horizontal Intensity. Unit Gamma.

JANUARY	PS	2	0	0	3	3	2	3	2	3	6	11	14	22	28	36	38	39	41	25	34	12	4	0	1
	NS	73	86	58	29	26	10	6	4	3	1	0	2	0	2	0	1	9	2	9	52	34	84	63	67
FEBRUARY	PS	0	0	0	5	3	4	5	10	7	12	17	26	29	53	71	54	60	44	24	16	5	1	0	0
	NS	128	107	84	54	39	20	6	3	2	2	1	0	2	0	0	1	0	9	35	66	91	102	149	146
MARCH	PS	0	2	0	1	2	9	6	16	21	27	35	50	72	81	94	85	67	34	14	7	3	0	0	1
	NS	164	148	118	70	47	24	13	5	1	0	0	0	3	3	2	2	1	12	38	81	125	164	141	148
APRIL	PS	0	2	0	0	1	3	8	6	10	29	43	72	66	70	83	95	89	46	14	3	1	0	0	0
	NS	214	220	185	101	49	26	17	13	3	1	2	3	1	4	5	4	4	9	47	143	166	167	195	252
MAY	PS	1	1	1	2	0	5	3	11	14	28	37	42	75	78	84	81	69	50	20	6	1	0	0	1
	NS	204	205	160	130	104	34	19	4	1	1	1	0	0	0	0	0	0	2	45	75	106	153	190	203
JUNE	PS	2	1	2	1	1	5	12	12	21	30	49	82	89	86	83	85	75	49	22	5	3	2	2	1
	NS	184	199	146	115	53	26	18	14	14	7	6	1	0	1	1	1	1	3	33	71	88	120	151	181
JULY	PS	0	0	0	0	2	3	6	7	7	19	33	56	44	47	53	55	43	38	24	6	3	6	1	1
	NS	163	178	141	95	64	40	20	14	3	3	4	3	3	2	3	4	3	7	11	51	99	138	131	151
AUGUST	PS	0	0	0	0	2	2	3	5	7	15	19	43	40	66	65	61	46	39	17	5	1	0	0	0
	NS	163	136	115	73	47	42	26	7	2	1	1	2	1	1	0	1	1	2	14	56	151	124	175	140
SEPTEMBER	PS	0	1	0	1	2	6	6	9	19	21	32	55	69	79	94	71	68	40	18	4	2	1	1	0
	NS	138	143	114	84	44	36	15	5	4	2	4	2	1	1	0	1	0	3	47	58	96	127	157	139
OCTOBER	PS	1	1	1	1	2	2	4	6	7	24	30	61	47	45	61	55	46	24	8	5	3	1	0	0
	NS	108	69	42	31	18	9	8	7	6	5	1	1	0	4	3	3	14	29	80	123	155	145	158	149
NOVEMBER	PS	1	1	1	1	1	4	8	7	5	8	12	25	23	21	23	32	27	19	15	6	5	0	0	1
	NS	69	59	39	28	22	11	2	3	3	3	1	1	1	0	1	0	4	11	15	35	55	73	56	58
DECEMBER	PS	2	1	1	1	2	3	2	1	2	7	8	12	21	14	21	34	25	22	18	14	12	5	3	1
	NS	58	37	29	20	19	10	9	10	3	1	0	0	1	1	5	7	7	11	21	26	18	50	72	58
MEAN	PS	1	1	1	1	2	4	6	8	10	19	27	45	50	56	64	62	55	37	18	9	4	2	1	1
	NS	139	132	103	69	44	24	13	7	4	2	2	1	1	2	2	2	4	8	33	70	99	121	137	141
	AS	140	133	104	70	46	28	19	15	14	21	29	46	51	58	66	64	59	45	51	79	103	123	138	142
	PS-NS	-138	-131	-102	-68	-43	-20	-7	0	6	17	25	44	49	54	62	60	51	29	-15	-61	-94	-119	-136	-140

Tromsø *Gr. M. T.*

Quiet Diurnal Variation used in the Calculation of the Storminess.

July—December.

Declination. Unit Gamma. + West.

1930		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JULY	1-12	-13	-16	-19	-21	-21	-18	-14	-9	-4	2	9	13	16	16	15	15	14	14	12	9	5	1	-4	-9
	13-17	-13	-16	-19	-22	-22	-19	-15	-9	-4	3	11	15	17	17	15	14	13	13	12	9	5	1	-4	-9
	18-22	-13	-17	-20	-22	-22	-19	-15	-10	-3	4	12	16	18	17	16	14	12	13	11	8	5	1	-3	-8
	23-28	-13	-17	-20	-23	-23	-20	-16	-10	-3	5	13	17	19	18	16	13	11	12	11	8	5	1	-3	-8
	29-31	-13	-17	-20	-23	-23	-21	-17	-12	-5	3	12	17	21	19	17	13	11	12	11	9	6	2	-2	-7
AUGUST	1-9	-12	-17	-21	-24	-24	-22	-18	-13	-7	1	10	18	23	21	18	14	12	13	12	10	7	3	-2	-7
	10-14	-11	-16	-19	-22	-22	-20	-17	-12	-6	2	10	17	21	20	17	13	10	11	11	9	6	3	-2	-6
	15-22	-10	-14	-17	-19	-20	-18	-15	-11	-5	2	10	16	20	18	15	12	9	9	10	8	5	2	-2	-6
	23-31	-8	-11	-14	-17	-19	-18	-16	-12	-6	2	10	16	19	17	14	11	9	8	9	8	6	3	-1	-5
SEPTEMBER	1-4	-7	-10	-13	-16	-17	-16	-13	-9	-3	3	10	16	18	16	13	10	8	6	7	7	5	3	0	-4
	5-8	-7	-9	-12	-14	-15	-14	-11	-6	-1	5	10	15	17	15	12	8	6	4	5	4	3	1	-1	-4
	9-12	-7	-9	-11	-13	-14	-12	-9	-4	1	6	10	14	16	14	11	7	4	2	3	2	1	-1	-3	-5
	13-15	-7	-9	-11	-13	-14	-12	-9	-5	0	5	10	14	16	14	11	7	5	4	5	4	2	-1	-3	-5
	16-20	-6	-8	-10	-12	-13	-12	-9	-6	-2	3	9	13	16	14	11	8	6	5	6	5	3	0	-2	-4
	21-24	-7	-9	-11	-12	-13	-12	-9	-6	-1	5	10	13	16	14	11	8	6	6	6	4	1	-1	-3	-5
	25-28	-8	-10	-11	-12	-13	-12	-9	-5	0	6	11	14	16	14	11	8	6	7	6	3	0	-2	-4	-6
	29-30	-7	-8	-9	-10	-11	-10	-8	-4	0	6	10	13	14	12	9	6	4	5	4	2	0	-2	-4	-6
OCTOBER	1-6	-6	-7	-8	-9	-9	-8	-7	-3	1	5	9	12	12	10	8	5	3	4	3	1	-1	-3	-5	-6
	7-12	-5	-6	-6	-7	-6	-6	-5	-2	2	5	8	10	10	8	6	3	1	3	1	-1	-2	-4	-5	-6
	13-23	-5	-5	-5	-5	-4	-4	-3	-1	2	5	7	9	8	6	4	2	1	2	0	-2	-3	-4	-5	-6
	24-27	-6	-6	-6	-6	-5	-5	-4	-2	1	5	8	8	7	6	4	2	1	2	1	0	-2	-3	-4	-5
	28-31	-5	-5	-5	-6	-5	-4	-3	-2	0	3	6	8	7	5	3	2	1	2	1	0	-2	-3	-4	-5
NOVEMBER	1-3	-4	-4	-4	-5	-4	-3	-2	-1	0	3	5	7	6	5	3	2	1	1	0	-1	-2	-3	-4	-4
	4-10	-3	-3	-4	-4	-4	-3	-2	-1	0	2	4	6	5	4	3	2	1	1	0	-1	-2	-3	-4	-4
	11-21	-2	-2	-2	-3	-3	-3	-3	-2	0	2	4	6	6	5	4	3	1	1	-1	-2	-3	-4	-3	-3
	22-30	-3	-3	-3	-2	-3	-4	-4	-3	-1	1	4	6	6	5	3	3	3	2	0	-2	-3	-3	-4	-3
DECEMBER	1-7	-3	-3	-3	-2	-2	-2	-2	-1	0	2	4	5	6	5	4	2	1	0	-1	-2	-3	-3	-3	-3
	8-13	-4	-3	-3	-2	-2	-1	-1	0	1	3	4	5	6	5	4	2	0	-1	-2	-2	-3	-3	-3	-4
	14-17	-3	-3	-3	-2	-2	-2	-1	0	1	2	3	4	4	3	2	1	0	0	0	-1	-2	-2	-2	-3
	18-27	-2	-2	-3	-2	-2	-2	-1	0	1	2	3	4	3	2	1	0	0	0	0	-1	-1	-1	-2	-2
	28-31	-2	-2	-2	-1	-1	-1	0	0	1	1	2	3	4	3	2	1	0	0	0	-1	-1	-1	-1	-2

Horizontal Intensity. Unit Gamma.

1930		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
JULY	7-14	4	5	6	4	-1	-8	-14	-19	-23	-26	-24	-19	-9	1	7	12	16	17	17	16	14	10	7	4
	15-18	5	6	7	5	0	-7	-14	-20	-25	-27	-25	-20	-9	1	8	13	17	19	19	17	15	11	8	5
	19-22	4	5	6	5	0	-7	-14	-21	-26	-28	-26	-21	-10	0	8	13	17	19	19	17	15	11	8	5
	23-24	5	6	7	5	0	-7	-14	-21	-26	-28	-26	-21	-10	0	9	15	19	20	19	17	15	11	8	5
	25-26	5	6	7	5	1	-5	-12	-20	-25	-28	-26	-21	-10	-1	7	13	17	18	18	16	14	11	8	5
	27-28	5	6	7	6	2	-4	-11	-19	-25	-29	-26	-21	-11	-2	5	11	15	17	17	16	14	10	8	6
	29-30	5	6	7	6	2	-3	-10	-18	-24	-29	-26	-20	-11	-3	4	10	14	16	17	16	13	10	8	6
	31	5	6	7	6	3	-2	-9	-17	-24	-29	-26	-20	-11	-4	3	9	13	15	17	16	13	10	8	6
AUGUST	1-3	5	6	7	6	3	-2	-9	-17	-24	-29	-26	-20	-11	-4	3	9	13	15	17	16	13	10	8	6
	4-10	5	6	7	7	5	0	-7	-16	-24	-29	-26	-20	-12	-5	2	7	11	14	16	15	13	10	8	6
	11-16	5	6	7	7	5	0	-7	-16	-24	-28	-25	-19	-11	-5	2	7	11	14	15	14	12	9	7	5
	17-20	5	6	7	8	6	1	-7	-15	-23	-27	-25	-19	-11	-4	2	7	11	14	15	14	12	9	7	5
	21-24	5	6	7	8	6	1	-7	-15	-22	-26	-24	-18	-11	-4	2	7	11	13	14	13	12	9	7	5
	25-27	4	5	6	7	6	2	-6	-14	-21	-25	-23	-17	-10	-3	3	8	11	12	13	12	11	8	6	4
	28-30	4	5	6	7	6	2	-6	-14	-20	-24	-22	-16	-9	-3	3	8	11	12	13	12	10	8	5	3
	31	4	5	6	7	6	2	-6	-13	-19	-23	-21	-15	-8	-3	3	8	10	11	12	11	10	8	5	3
SEPTEMBER	1-3	4	5	6	7	6	2	-6	-13	-19	-22	-20	-15	-8	-3	3	7	9	11	12	11	10	8	5	3
	4-8	3	4	5	6	5	1	-6	-12	-17	-20	-18	-14	-7	-2	3	6	8	10	11	10	9	7	4	2
	9-11	2	3	4	5	4	0	-6	-11	-15	-18	-16	-12	-6	-1	3	6	8	9	10	10	9	7	4	2
	12-15	1	3	4	4	3	0	-5	-10	-14	-17	-15	-11	-5	-1	2	5	7	9	10	10	9	6	3	1
	16-20	1	3	4	4	2	0	-4	-8	-13	-17	-15	-10	-5	-1	2	5	7	9	10	10	9	6	3	1
	21-24	1	3	4	5	3	0	-4	-8	-12	-16	-14	-9	-4	0	3	5	7	8	9	9	8	5	2	1
	25-28	1	3	4	5	3	0	-4	-8	-12	-15	-13	-9	-4	0	3	5	7	8	9	9	8	5	2	0
	29-30	2	3	4	5	3	0	-4	-8	-12	-15	-13	-9	-5	-1	2	4	6	7	8	8	7	4	2	0
OCTOBER	1-5	2	3	4	5	3	0	-4	-8	-12	-15	-13	-9	-5	-1	2	4	6	7	8	8	7	4	2	0
	6-11	2	3	4	5	3	1	-3	-7	-11	-14	-13	-10	-6	-2	1	3	5	6	7	7	6	4	2	1
	12-14	3	4	5	5	4	2	-2	-6	-10	-14	-14	-11	-7	-3	0	3	4	5	6	6	5	4	3	2
	15-17	2	3	5	5	4	2	-1	-5	-9	-12	-12	-10	-7	-3	0	3	4	5	6	6	5	4	3	2
	18-20	2	3	4	5	4	3	0	-4	-8	-11	-10	-9	-6	-2	0	2	3	4	5	5	4	3	2	1
	21-23	1	2	4	5	5	3	1	-3	-7	-10	-9	-8	-6	-2	0	2	3	4	5	5	4	3	1	0
	24-27	0	2	4	5	5	4	2	-2	-6	-9	-8	-7	-5	-2	0	2	3	4	5	5	4	3	1	-1
	28-30	-1	1	3	4	5	4	2	-1	-5	-8	-7	-6	-5	-2	0	2	3	4	5	4	3	2	0	-2
	31	-2	0	2	3	4	4	3	0	-4	-7	-6	-5	-4	-2	0	2	3	4	4	3	2	1	-1	-3
NOVEMBER	1-5	-3	-2	0	2	4	5	3	0	-3	-6	-6	-5	-4	-2	0	2	3	4	4	3	1	-1	-3	-4
	6-10	-2	-1	0	2	4	5	3	0	-3	-6	-6	-5	-4	-2	0	2	3	4	4	3	1	-1	-2	-3
	11-17	-1	0	1	2	3	4	2	0	-3	-5	-5	-4	-3	-1	1	2	3	4	4	3	2	0	-1	-2
	18-22	-1	0	1	2	3	4	2	0	-3	-5	-5	-4	-2	0	1	2	3	4	4	3	2	1	0	-1
	23-24	-2	-1	0	1	2	4	3	0	-3	-5	-5	-4	-2	0	1	2	3	4	4	3	2	1	0	0
	25-26	-3	-2	-1	0	2	4	3	1	-2	-5	-5	-4	-2	0	1	2	3	4	4	3	2	0	-1	-1
	27-28	-4	-4	-3	-1	1	4	4	1	-2	-4	-4	-3	-2	0	1	2	3	4	5	3	1	-1	-1	-2
	29-30	-4	-5	-4	-2	1	4	5	2	-1	-4	-4	-3	-2	0	1	2	3	4	5	3	1	-1	-2	-3
DECEMBER	1-6	-4	-5	-4	-2	1	4	5	2	-1	-4	-4	-3	-2	0	1	2	3	4	5	3	1	-1	-2	-3
	7-14	-4	-5	-4	-2	1	4	4	2	-1	-3	-4	-3	-2	0	1	2	3	4	5	3	1	-2	-3	-4
	15-20	-4	-4	-3	-1	1	3	3	1	0	-2	-3	-3	-2	0	2	3	4	5	5	3	0	-3	-4	-5
	21-25	-4	-4	-3	-1	1	3	3	1	0	-2	-3	-2	-1	1	2	3	4	5	5	3	0	-3	-4	-5
	26-31	-5	-4	-2	0	2	3	3	1	-1	-2	-2	-1	0	1	2	3	4	5	5	4	1	-2	-4	-5

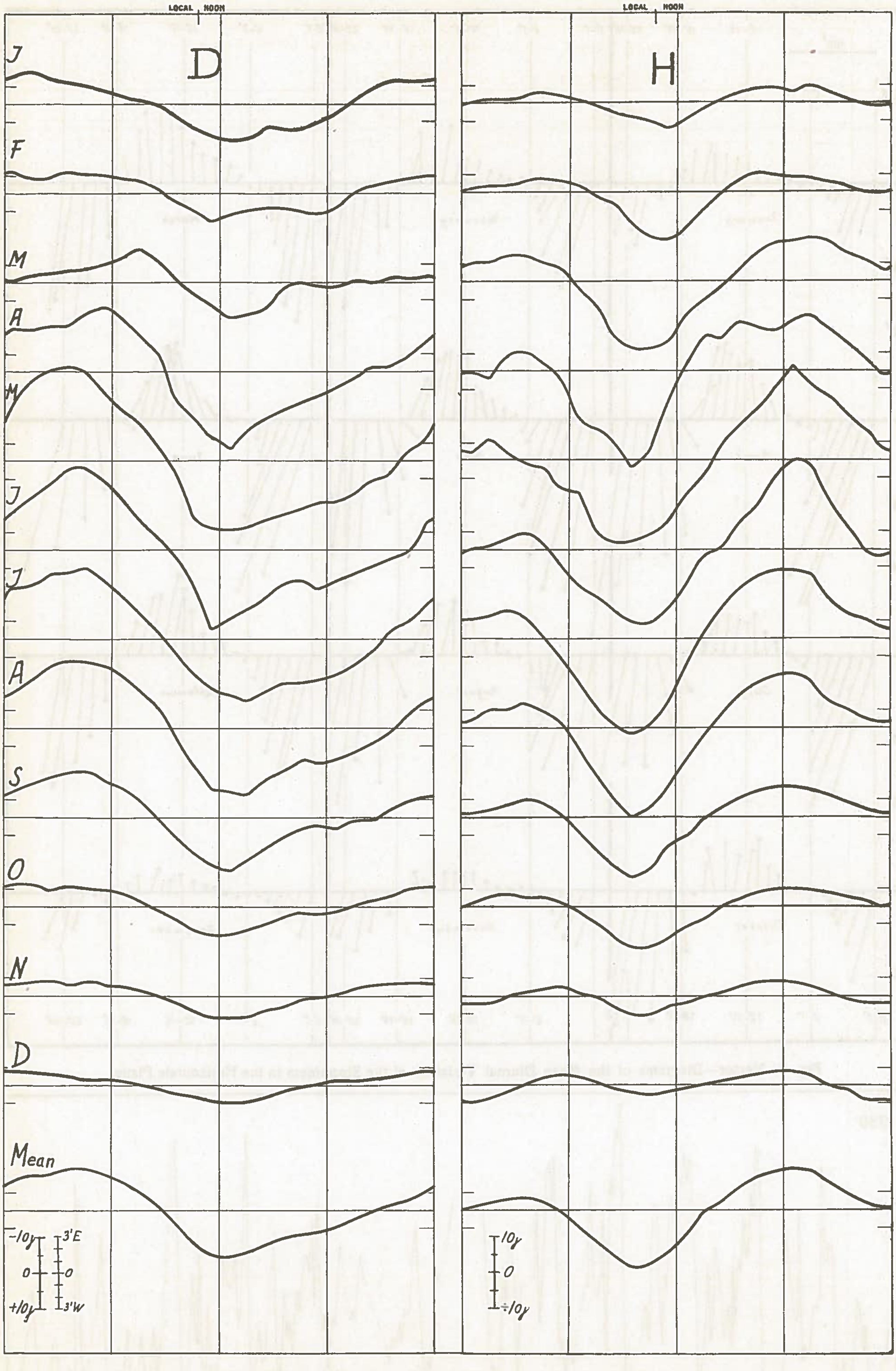

Fig. 1. The Diurnal Variation of the Quiet Values.

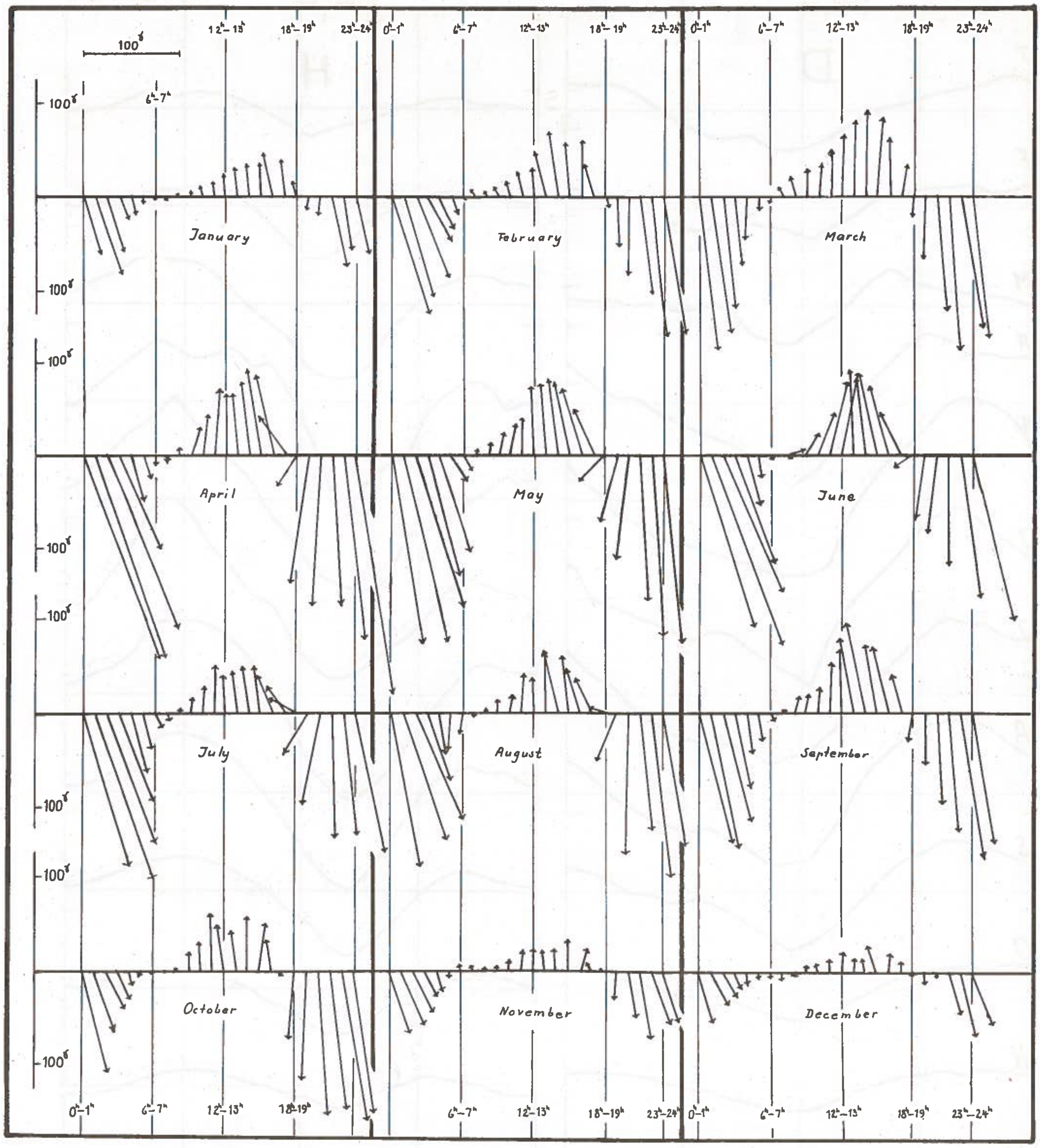

Fig. 2. Vector—Diagrams of the Mean Diurnal Variation of the Storminess in the Horizontale Plane.

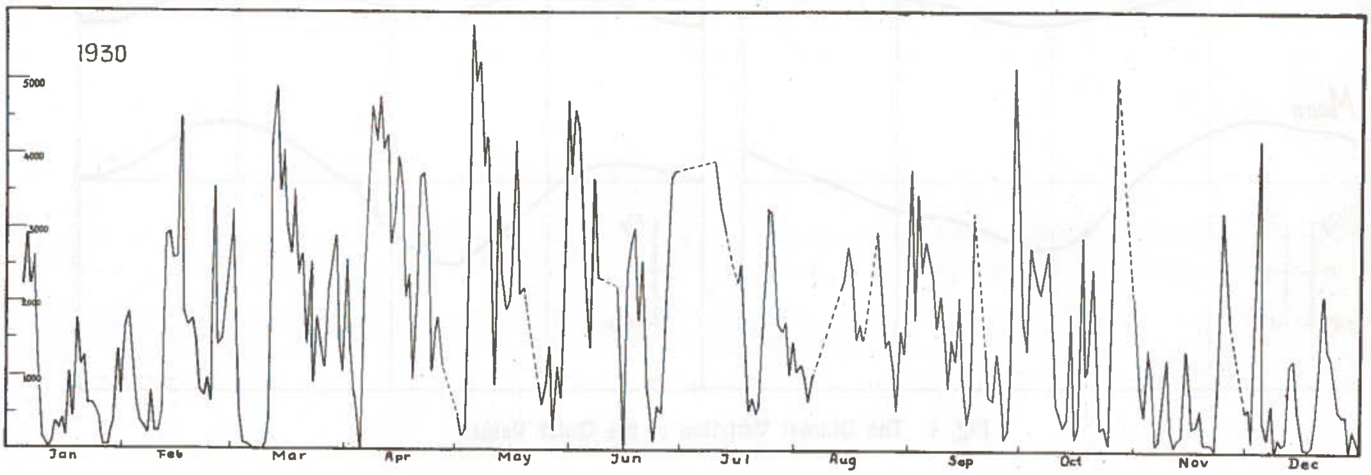

Fig. 3. The Variation of the Absolute Storminess in the Horizontal Intensity during the Year.