



# RESULTS OF THE MAGNETIC & METEOROLOGICAL OBSERVATIONS

MADE AT THE ABINGER MAGNETIC STATION, SURREY  
AND THE ROYAL OBSERVATORY, GREENWICH  
RESPECTIVELY IN THE YEAR

**1938**

UNDER THE DIRECTION OF  
H. SPENCER JONES, Sc.D., F.R.S.  
ASTRONOMER ROYAL

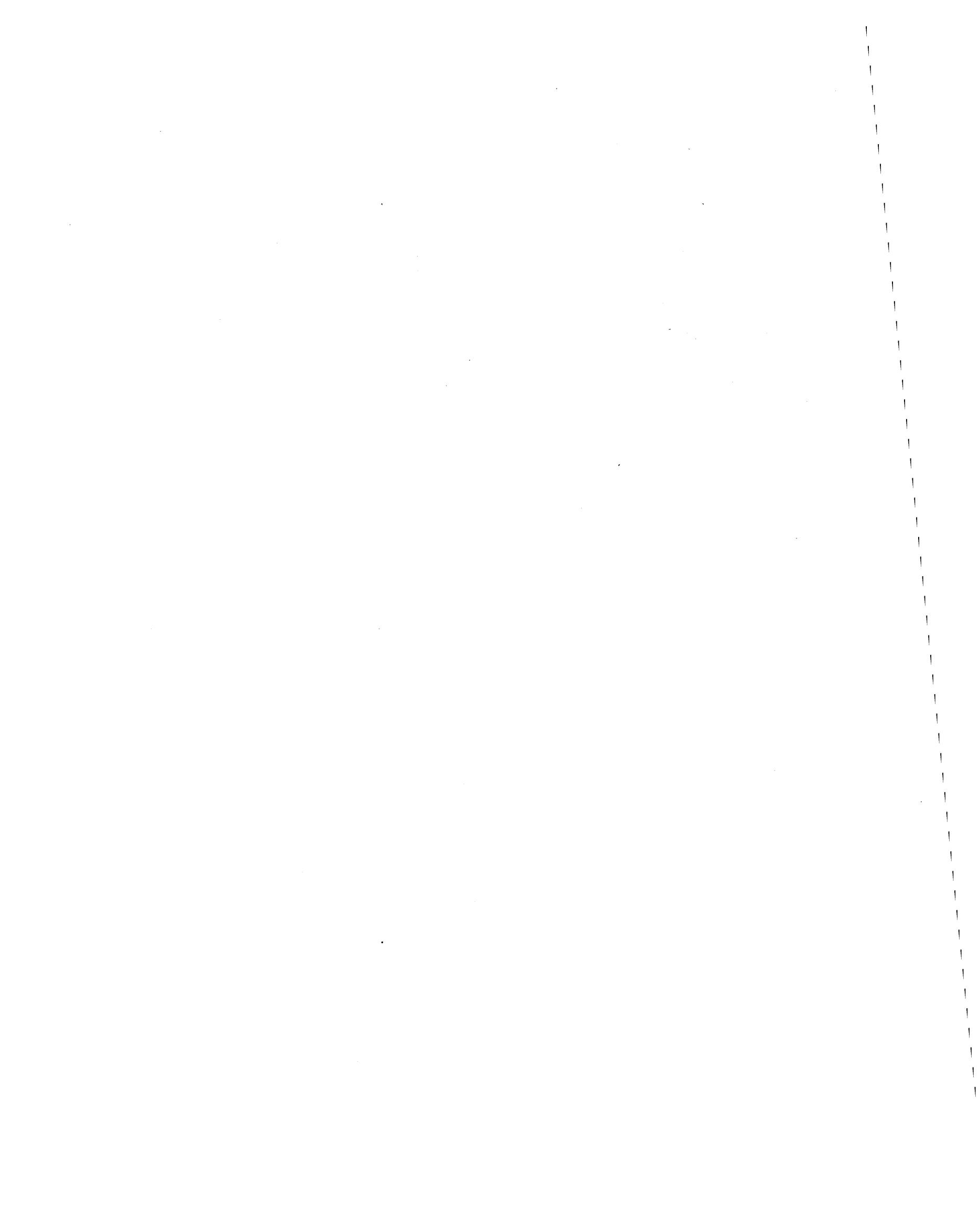
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### ERRATUM 1936 and 1937 Results.

Table IX line 2 of heading.

$$\text{For } \sum (c_n \sin nT + a_n) \text{ read}$$

$$\sum c_n \sin (nT + a_n)$$

THE ROYAL OBSERVATORY, GREENWICH  
AND  
ABINGER MAGNETIC STATION, SURREY

ABINGER MAGNETIC OBSERVATIONS, 1938.

During the year 1938 the staff employed in the Magnetic and Meteorological Department of the Royal Observatory consisted of W. M. Witchell, Superintendent, W. Stevens, G. F. Wells, P. L. Rickerby, B. R. Leaton, and two ladies engaged in computational duties.

On account of electric railways in the neighbourhood of Greenwich, magnetic observations are made at an out-station about six miles from the town of Dorking in Surrey, and one and a half miles from the village of Abinger Common. Mr. Stevens, resident observer and assistant-in-charge of the station, is assisted by Mr. Rickerby.

GENERAL DESCRIPTION OF THE BUILDINGS AND INSTRUMENTS OF THE MAGNETIC OBSERVATORY.

The Station was established in 1924 on a site on the northern slope of Leith Hill, 800 feet above sea level. It is approximately 26 miles from the Royal Observatory in a direction a little south of south-west. The nearest railway track approaches to about  $2\frac{1}{2}$  miles. The adopted geographical position is Latitude  $51^{\circ} 11' 5''$  N., Longitude  $0^{\circ} 23' 12''$  W.

The Magnetic Pavilion for absolute observations is constructed of carefully chosen non-magnetic materials, and measures approximately 28 feet by 15 feet. It contains four circular tables stoutly built of hard wood into concrete piers which are free from contact with the floor. On the north pier is mounted the declination instrument, on the central pier the coil magnetometer for observing horizontal intensity, on the south-east pier the coil-magnetometer for observing vertical intensity, and on the south-west pier the dip inductor.

A smaller pavilion, measuring 16 feet by 12 feet, erected in 1926 for the testing and standardising of magnetic instruments (work formerly carried on at Kew Observatory), is situated about 40 feet south-east of the Magnetic Pavilion, and contains three concrete piers passing through the floor without contact.

## ABINGER MAGNETIC OBSERVATIONS, 1938.

The unifilar magnetometer, mounted until August 1928 in the Magnetic Pavilion, is at present used in this pavilion. It has been ascertained by interchange of two coil-magnetometers, simultaneously operated, that as regards horizontal intensity the site difference is negligible.

A second pavilion, 20 feet in length and breadth, suitable for comparative observations and more convenient than the first for standardising magnetic instruments, was completed in 1932. It occupies a position on the north-east of the pavilion for absolute observations corresponding to that of the testing pavilion on the south-east and contains three circular wooden tables built into concrete piers free from contact with the floor, similar to those in the Magnetic Pavilion.

The Magnetograph House stands 50 feet east of the Magnetic Pavilion in which the absolute magnetic observations are made. The recording instruments are situated in an inner chamber 15 feet long, 12 feet wide, and 8 feet high. This chamber is supported on small concrete piers and is surrounded by an outer chamber, whose walls of non-conducting material are nearly 2 feet thick. Between the walls of the two chambers is an air space of from 2 to 3 feet. The inner chamber is electrically heated by low-temperature non-magnetic metallic resistances distributed along the base of the walls. The current used is alternating, and is therefore without effect upon the magnetic registration.

A small power-house with storage battery and alternating generator for the supply of electric current required in lighting and heating is situated about 125 yards south of the observation houses. A public mains supply of three-phase current became available in 1937, however, and the current used at the station is now drawn from the mains.

The temperature of the Magnetograph House is controlled by a thermostat placed in the centre of the room, at the same level as the magnetic instruments. This actuates a relay, which switches the electric current into or out of the heating circuits. The temperature is read daily from a thermometer attached to the horizontal intensity instrument. The departure from a mean temperature is not more than  $0^{\circ}.2$  C.

The centres of the three instrument piers are situated as follows: For the horizontal intensity instrument, 2 feet west and 2 feet 6 inches south of the north-east angle of the room; for the declination instrument, 5 feet 6 inches west and 5 feet south of the same angle; for the vertical intensity instrument, 2 feet east and 3 feet north of the south-west angle. The two piers which support the recording mechanism occupy the north-west and south-east corners of the room, their longer sides being in the direction at right angles to the meridian.

The horizontal intensity and declination instruments record on the south-east drum; the vertical intensity instrument on the other drum. Both drums are horizontal and are 10 inches long by  $5\frac{1}{2}$  inches in diameter. Their normal period of revolution is 30 hours and the time scale 15 mm. to the hour. The registering beams of light are focussed on the drum by an adjustable cylindrical lens. Two horizontal straight-filament lamps mounted at suitable heights on the north and south walls of the chamber provide the time-registration for the photographic sheets. The lamps are illumined for a period of one second centred at each exact hour of Universal Time, the current being controlled by a relay connected to a mean solar clock in the computing room. The effect is to produce narrow dark hour-lines right across the photographic records.

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The error of the clock is observed daily by comparison with a radio time signal from one of the official broadcasting stations. Correction is made by magnetically altering the rate until the observed error has been removed. The error thus seldom exceeds one second.

Early in the year preparation was made for replacing these two magnetographs by a single magnetograph of the *La Cour* (or *Copenhagen*) type. In this instrument the traces of three elements are recorded on one sheet, each element being restricted to a particular strip of the sheet. If the recording light-ray moves to one edge of this strip a secondary ray appears at the other edge, derived from the original source of light by prism reflection. Several such rays are available in succession on each side of the primary, so that a very much larger departure from the mean position can be recorded than was possible before.

On February 15 the variometers for recording declination and horizontal intensity which had been in use since 1925 were dismantled from their piers together with the recording mechanism. The pier supporting the latter was utilised to carry a massive slate slab, measuring 8 feet by 2 feet by  $1\frac{1}{2}$  inch, which was cemented centrally upon it. This forms a rigid table upon which the three *La Cour* variometers are set up in a line running geographically east to west. The recording mechanism is mounted upon a heavy wooden table 8 feet by 3 feet, the legs of which pass freely through the floor of the chamber and are cemented into the concrete base of the whole building. In designing this arrangement provision has been made for the later addition of a second set of instruments recording on a time-scale twelve times more open.

Between February 15 and March 2 the new magnetograph was used in the smaller of the testing huts while the recording chamber was being renovated.

The quartz-fibre variometer for vertical intensity was dismantled during the renovation. It was re-erected on February 18 and remained in normal use. The *La Cour* magnetograph was placed in its permanent position in the magnetograph house on March 2.

DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS. - A hollow cylindrical magnet with scale and collimating lens is used in conjunction with a small telescope mounted independently on the same pier. The magnet is suspended by tungsten wire, of diameter 0.02 mm. Frequent reversals are made to eliminate the collimation error of the magnet from the results, and the position of torsional zero of the suspension wire is also frequently checked.  $90^\circ$  of torsion deflects the magnet about  $3'$  of arc. The telescope has a six-inch circle on which azimuths are read by means of two microscope-micrometers to  $1''$  of arc. An azimuth-mark is fixed on the top of a concrete pillar, 10 feet high, erected at the northern extremity of the Observatory grounds at a distance of approximately 300 feet from the observing pier. Determinations of the azimuth of this mark have been made at intervals by means of observations of Polaris. During each observation of Polaris, both direct and reflected views are taken. The effect of error of level of the telescope is thus entirely eliminated. Reflection is obtained from the surface of mercury contained in a shallow copper dish.

THE HORIZONTAL INTENSITY SCHUSTER-SMITH COIL MAGNETOMETER. - This instrument has been lent to the Observatory by the Director of the National Physical Laboratory. It is the second constructed of the type and is rather smaller than the original instrument, a detailed

## ABINGER MAGNETIC OBSERVATIONS, 1938.

description of which is to be found in *Philosophical Transactions of the Royal Society*, Vol. 223 (1923), pp. 175-200. It is erected on a pier in the centre of the absolute observation pavilion and was brought into use as the standard instrument for observation of horizontal intensity on 1927, February 1. In general eight independent determinations are made each week-day.

The following is a brief description of the instrument and the method employed in measuring horizontal intensity:-

A hollow marble cylinder of 50 cms. diameter rests, with its axis horizontal, on a brass support which can be turned in azimuth. The azimuth may be read to 10" of arc from a graduated circle on the base-plate, by the usual vernier attachment. On the periphery of the cylinder, near each end and at a mean distance of 25 cms. from each other, are two windings, in series, of ten turns of bare silver wire, the method of winding the ten loops in a double spiral being that adopted in the original instrument referred to above. The whole forms a Helmholtz-Gaugain system at the centre of which a very uniform magnetic field parallel to the axis exists when an electric current is passing through the coils.

A chromium-steel magnet, 15 mm. long and 2 mm. square in cross section is supported horizontally in a light vertical aluminium frame; the frame carries also a small concave mirror and a damping vane, and is suspended by a single silk fibre in a suspension tube passing through a hole in the upper surface of the cylinder. A square box with optically-plane glass sides supports the tube and encloses the magnet frame, allowing the mirror to project an image of a source of light during observation. The suspension fibre is adjusted so that the magnet hangs at the centre of the coil system.

To afford an easy means of reading the azimuth of the cylinder and the indications of the magnet, graduated ivorine scales are placed horizontally on stands at a distance of a little over 7 feet from the pier, and spots of light are reflected to them by small concave mirrors in the instrument.

Situated outside the observing pavilion, about 40 feet to the south, is a storage battery of 25 cells which produces the current required for the observation. The amount of current employed is very accurately adjusted to a specific value by rheostat according to the indications of a Broca galvanometer in a potentiometer circuit in which the e.m.f. across a known resistance is balanced against that of a Weston standard cell.

Careful precaution is exercised in arranging the circuits both to eliminate accidental magnetic fields and to secure the highest degree of insulation. The latter has been found, in practice, to be of great importance, especially with regard to the insulation of the galvanometer circuit, as any stray current here will lead to a difference of potential between the terminals of the standard cell and the standard resistance. It is desirable that the resistance of the galvanometer should be as low as possible consistent with sensitivity.

Theory of the observation:-

If a horizontal magnetic field whose intensity is slightly greater than that of the earth is

## ABINGER MAGNETIC OBSERVATIONS, 1938.

imposed at an angle of nearly  $180^\circ$  with the earth's field, a position angle can be found at which the resultant of the two fields becomes directed at right angles to the earth's field. The intensity  $F$  of the imposed field, and its angle  $\alpha$  with the earth's field being known, the horizontal intensity of earth's field can then be calculated from the simple relation :  
$$H = F \cos \alpha .$$

An observation proceeds as follows:-

Torsion having been eliminated from the suspension thread by substituting a copper piece for the magnet, the magnet is replaced and allowed to hang freely in the earth's field. The position, on the appropriate scale, of the spot of light reflected by the magnet-mirror is noted. This scale is normally on the west side of the instrument. By optical methods, reference marks on two other scales placed respectively to the magnetic north and south of the instrument are adjusted accurately to points  $90^\circ$  from the spot reflected by the magnet-mirror. A current is next passed round the coil in the direction that produces a field augmenting that of the earth, and the coil is turned in azimuth until the addition of the imposed field produces no alteration in the direction of the magnet. The axis of the coil is then accurately parallel to the earth's field, and the coil-mirror can be adjusted so that it reflects a spot of light to the reference mark, i.e., to the zero graduation of the north scale, as already set.

The current is now reversed in the coil by a commutator switch and the coil is turned until the resultant force on the magnet is in a direction at right angles to the earth's field. This is indicated on either the north or south scale by the magnet-mirror, which is carried round  $90^\circ$  by the magnet. The azimuth angle through which the coil has been turned is read from the north scale, and the coil is then turned to an approximately equal angle on the opposite side of the magnetic meridian. This reverses the direction of the resultant field; and a further small adjustment of the coil brings the spot of light reflected by the magnet-mirror accurately to the reference mark on the opposite scale to that last used. A second reading of the azimuth of the coil completes the observation.

The suspension box and tube are turned by the observer as the magnet turns, so that no torsional change is introduced. The effect of any small error in the assumed direction of the earth's horizontal field due, say, to residual torsion on the suspension thread, is eliminated on taking the mean of the two results.

After preliminary details have been gone over, a complete observation of horizontal intensity is readily obtained in two minutes.

If  $F$  be the factor of the coil and  $i$  be the current passing in amperes, then the intensity of the field at the centre of the coil in  $\gamma$  units is  $Fi \times 10^4$ . The adopted value of the factor "F" of the coil is  $3.59570 (1 - .000043 t)$ ,  $t$  being temperature Centigrade.

The observed value of horizontal intensity obtained from this instrument is subject to a correction of  $-1\gamma$  for the effect of the field of magnets in instruments placed permanently in the vicinity. The effect is determined experimentally by reversal of the magnets. The correction is applied in the reduction of the observation.

## ABINGER MAGNETIC OBSERVATIONS, 1938.

The constants of the coil and of the potentiometer at various standard temperatures have been precisely determined at the National Physical Laboratory and are checked from time to time. The dimensions of the coil were re-examined in November 1931. The electrical constants on which the reduction of observations made in 1938 is based were verified in March 1938. The factor adopted to convert the measure of current from international units to C.G.S. units was changed on January 1, 1938 from 0.99997 to 0.99988. This change is in conformity with the most recent determinations and it introduces a discontinuity in the measures of horizontal and vertical intensity amounting to  $-1.7\gamma$  and  $-3.9\gamma$  respectively.

A KEW-PATTERN UNIFILAR MAGNETOMETER by Messrs. C. F. Casella & Co. (No. 181) is also used to determine absolute horizontal intensity. Deflection observations are made at three distances, namely, 22.5 cms., 30 cms. and 40 cms. 9 observations of the moment of inertia of the collimator magnet were made during the year 1938. The mean observed value of  $\log. K$  from these determinations was 2.42366. This value has been used in the reductions and is based on the Greenwich Standard Inertia Cylinder. (See Appendix II of the Magnetic Results, 1926).

The mean values of the distribution constants P and Q derived from 92 normal determinations made during the year are  $+10.20$  and  $-1.775$  respectively.

The values used in the reduction of the 1938 observations, however, are the mean values obtained from a series of 235 special observations made during the year 1936. These values are: P =  $+9.17$ , Q =  $-1.409$ .

The method employed in reducing the special series was as follows:-

$$\text{A deflection observation gives H through the equation } H \sin \alpha = \frac{2m}{r^3} \left( 1 + \frac{P}{r^2} + \frac{Q}{r^4} + \dots \right)$$

If deflections,  $\alpha$ , are made at several distances,  $r$ , and the values of H and m are known from some other source, a direct solution of the equation for P and Q is possible by "least squares". The value of m was determined from the period of vibration and the moment of inertia of the deflecting magnet, in combination with the value of H as observed by a coil-magnetometer at the time of the vibration experiment. The values of  $r$  were 22.5, 25, 30, 35, 40, 45, 50 cms.

In 1938 the deflection at 22.5 cms. has not been used in computing observed values of horizontal intensity.

VERTICAL INTENSITY COIL MAGNETOMETER. - This instrument, designed by the late Dr. D. W. Dye, F.R.S., for direct measurement of vertical intensity, and constructed under his supervision at the National Physical Laboratory, Teddington, has been lent to the Royal Observatory by the Director of the National Physical Laboratory. It is erected on the south-east pier of the observing pavilion, and was adopted as the standard for observation of vertical intensity from 1929 January 1.

A full description of the instrument is published in *Proceedings of the Royal Society, Ser. A*, Vol. 117 (1928), pp. 434-458.

## ABINGER MAGNETIC OBSERVATION, 1938.

In brief, the instrument consists of a Helmholtz-Gaugain Coil wound on a marble cylinder, the axis of which is vertical as truly as can be determined, together with accessory apparatus for accurately controlling and measuring the current passed through the coil, and for testing the resultant field at its centre.

The observation consists in an adjustment of the current until the artificial field imposed at the centre of the coil exactly annuls the vertical component of the earth's field. The intensity of this component is then easily calculable from a knowledge of the dimensions of the coil and the amount of current indicated by potentiometer measurement. (cf. p. vii). The current is taken from the battery that supplies the Schuster-Smith instrument.

The adopted value of the factor is  $F=3.59643(1 - .0000079 t)$ ,  $t$  being temperature Centigrade.

The constants of the potentiometer in use during the year for the measurement of the current were verified at the National Physical Laboratory in March 1938.

The special feature of the instrument is the means adopted for ascertaining when the vertical component of the earth's field is exactly annulled at the centre of the marble cylinder.

This consists of a diamond-shaped vibrating test-coil about 2 cms. long suspended by bronze strip stretched horizontally between two supports and carrying a light plane mirror. The principle of the instrument requires that the axis of rotation of the detector coil should be horizontal and its plane vertical, in the equilibrium position. The method of securing these adjustments is included in the full description of the instrument mentioned above.

A weak alternating current, supplied from a generator at some distance from the instrument, passes through the test coil. The reaction between this current and the magnetic field causes the coil to receive an alternating rotatory force which only vanishes when the vertical field is annulled. The resulting vibration is brought to a maximum by adjustment of the generator frequency to synchronism with the natural frequency of the coil (about 15 per second), and high sensitivity is thus obtained. Microscopic vibration is exhibited by projection, from the mirror, of an image of cross wires to a screen erected about 2 metres distant.

**ABSOLUTE INCLINATION INSTRUMENT.** - An Earth Inductor by The Cambridge Instrument Co., in conjunction with a Broca galvanometer, is used to determine magnetic inclination. About six determinations are made each week. Observations are made in four positions to eliminate any small errors arising from slight asymmetry in the instrument. After the first adjustment, the coil-support is reversed about a horizontal axis and a second adjustment is obtained: the instrument is then reversed in azimuth and two further adjustments are made. The circle for the measurement of inclination is 8 inches in diameter, and is read by means of microscope micrometers to 1" of arc. The levels on the base can likewise be read to one second. A detailed description of the inductor will be found in the volume for 1915. Since 1929, January 1, the observations of inclination have not been used for determination of vertical intensity.

**THE LA COUR VARIOMETERS.** - The Declination and Horizontal Intensity variometers in use until February 15 have been fully described in previous volumes of Results. A complete descrip-



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tion of the *La Cour* variometer for horizontal intensity is to be found in No. 11 *Publikationer fra det Danske Meteorologiske Institut* (Copenhagen 1930). Some details are given here for general information. The magnet, of cobalt steel, is 8 millimetres long and weighs about 25 milligrammes, the magnetic moment being 3.2 c.g.s. units. It is suspended at right angles to the earth's field by means of a quartz fibre thickened at each end to the form of a small cone. Each cone fits into a brass socket having a fine slit in its side through which the fibre has passed. The cones are held firmly in the sockets by a little wax and the fibre is thus attached to its connections with sufficient rigidity. The focal length of the lens which projects the ray from the mirror attached to the magnet is 160 cms. Compensation for the effect of temperature on the moment of the magnet is attained by optical means, the principle being the compensatory deflection of the emergent ray produced by the proportional curving of a bimetallic lamina which supports a prism controlling the ultimate direction of the ray. The method of extending the range covered by the variometer has already been mentioned (p. v). A small Helmholtz-Gaugain coil enveloping the variometer and having a field of 7.43γ per milliampere is used both to orient the magnet correctly with respect to the earth's field and to determine the scale value of the record. The adopted scale value is 4.40γ per millimetre. Owing to the fact that the optical ray does not meet the recording cylinder at right angles the scale is not quite uniform.

The general features of the declination variometer correspond closely to those of the variometer just described. The scale value is 0'.90 per millimetre. Expressed as magnetic intensity the scale value would be 4.85γ per millimetre at the present time.

The *La Cour* vertical intensity variometer is fully described in No. 8 *Publikationer fra det Danske Meteorologiske Institut*. The variometer was in operation from the beginning of April, but the records used in the reductions were those of the quartz-thread variometer described in the next paragraph.

THE QUARTZ-THREAD VERTICAL INTENSITY VARIOMETER. - For a detailed description of the instrument reference may be made to the *Philosophical Magazine*, vol. vii., sixth series (1904), p. 393. The base of the instrument consists of a metal casting with uprights at the two ends, carrying attachments for the ends of the quartz fibre which supports the magnet system. By an ingenious arrangement the length of the frame, carrying the horizontal quartz fibre that suspends the magnet system, is defined by quartz tubes. The metal rods composing the sides of the frame pass through these tubes and, by the reaction of stiff springs, press the ends of the frame firmly on to the ends of the quartz tubes. The change in tension of the suspension thread with change of temperature, which would be produced by the difference in the coefficients of expansion of quartz and brass, is avoided by this design. The instrument was carefully adjusted at Greenwich for elimination of other temperature effects, in the manner explained in the description given in the *Philosophical Magazine*, but a small effect has developed since 1927.

The magnet system consists of two magnets, 8 cms. long and 1 mm. in diameter, which are attached by small platinum stirrups to two rods of fused quartz; these are fused to a quartz plate, whose upper surface is optically worked and platinised to form a plane mirror. The quartz rods are drawn out at their other ends into fibres of about 0.08 to 0.10 mm. diameter; one fibre is fused to a coiled quartz spring. The quartz spring and the other fibre are soldered to small brass rods fitting into clamps at the two ends of the metal base. The thread is under sufficient tension to stretch the spring through about two millimetres. A right-angled prism, supported in a frame above the mirror, reflects the light from the illuminating lamp on to the mirror and then, after reflection from the mirror, back in a horizontal direction to the recording drum. A single

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lens, placed between the mirror and the prism, brings the light to a focus on the drum. The prism frame is adjustable in azimuth to enable the trace to be brought to any desired part of the drum. An adjustable mirror beneath the quartz fibre and adjacent to the mirror of the magnet system serves to give a base line.

The sensitiveness of the instrument is varied by raising or lowering the centre of gravity of the magnet system. Coarse adjustment is obtained by means of small aluminium discs pierced centrally to allow them to rest on a slender vertical quartz pin provided for this purpose at one side of the mirror. To obtain fine adjustment a small vertical screw is fixed at the opposite side of the mirror and a small piece of aluminium can be moved up and down the screw.

The scale value is obtained by electro-magnetic deflections. The radius of the coil used for this purpose is 30.15 cms. The mean of the scale values adopted during the year 1938 was 2.55 $\gamma$  per mm. until February 15; afterwards 2.40 $\gamma$ . Slight deviations from the mean value occur when the standard temperature of the room is raised or lowered. The value is sensibly uniform over the range allowed by the photographic sheet.

### REDUCTION AND ARRANGEMENT OF RESULTS.

The time used is *Universal time* (U.T.).

The estimated mean ordinates of the photographic traces for each hour are measured from the base-lines by the aid of an etched glass scale, the hour being the period of sixty minutes commencing at the time named in the table - and from the tables of these measures are obtained the mean monthly values for each hour of the day, and the mean daily value of the element for each day of the month. The daily mean is taken from the 24 hourly mean ordinates.

Base-line values are adopted from smooth curves drawn through points plotted on a chart, each point representing the mean result from several independent observations.

Ten observations of declination, eight of horizontal intensity and six of vertical intensity are made, on an average, each week-day. Previous to 1929 the base-line values for vertical intensity traces were computed from absolute observations of inclination combined with simultaneous values of horizontal intensity taken from the magnetograms. From 1929 January 1, the values have been obtained directly from observations of vertical intensity with the coil-magnetometer. A discontinuity arises in the definitive values of vertical intensity at the time of changing the method of deriving the base-line value of the magnetograms.

The magnetograph chamber being maintained at a sensibly constant temperature, no temperature corrections are required in general. When the seasonal changes are made in the temperature at which the chamber is maintained, new base-line values are adopted from the hour at which control is observed to be established, and during the period of change interpolated values are applied at hourly intervals.

Tables I to III contain the hourly results for declination, horizontal intensity and vertical intensity respectively.

Table IV gives for each element the mean daily value, the maximum and minimum values with the times of their occurrence, and the daily range.

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Then follow in Tables V to VII the monthly and annual mean diurnal inequalities for all days, and for quiet and disturbed days as selected by the International Committee. In addition to monthly and annual values there are also given mean values of the diurnal inequalities grouped into the seasonal periods, Winter (that is January, February, November, December), Equinox (March, April, September, October) and Summer (May, June, July, August). The values in these tables have not been adjusted for the effect of non-cyclic change.

From the inequalities in declination, horizontal intensity and vertical intensity, corresponding inequalities in the north and west components and in inclination have been computed and appear at the same opening of the page. In general, the computations are carried to one significant figure beyond the actual figure printed.

The extremes of any inequality are indicated by heavy type.

The inequalities in the north, west and vertical components (that is in X, -Y, Z) have been subjected to harmonic analysis, the results being given in Tables VIII and IX. In the case of the International Quiet and Disturbed Days, the inequalities were adjusted for non-cyclic change before analysis, but in analysing the results for "All" Days the non-cyclic change was ignored. The phase angles in Table IX are corrected to refer to Abinger Local Mean Time.

In Table X are given the mean diurnal ranges in declination, horizontal intensity and vertical intensity for each month, for the year and for the seasons. The corresponding results for quiet and disturbed days are also given. The quantities are derived from Tables V to VII.

Table XI gives in similar arrangement the non-cyclic change  $24^h$  minus  $0^h$ . The quantities were computed from Tables I to III, the value for  $0^h$  or  $24^h$  being taken as the mean of the last value on one day and the first on the next.

Table XII contains the mean monthly and annual values of the components collected together. In this table corrections have been applied, when necessary, to the values of H and V taken from Table IV, to remove the effect of any small secular changes in potentiometer constants found at the periodical re-measurement of the constants at the National Physical Laboratory.

Tables XIII to XV contain the daily values of the base lines of the magnetograms deduced from absolute observations of declination, horizontal and vertical intensity.

On p. D 42 is printed a table giving mean annual values of Magnetic Elements determined at the Royal Observatory, Greenwich, over the whole period of observation. Included in the table are results of early observations of declination made in 1818 to 1820.

A table follows giving the values determined at the Abinger Station since 1925.

Reduced copies of the magnetograms for certain disturbed days have been printed in each

## ABINGER MAGNETIC OBSERVATIONS, 1938.

volume since 1882. The days are now those selected at De Bilt for the International Committee. These dates in 1938 are January 16-17, 21-22, 25-26; April 13-14, 16; May 11-12; July 15-16; August 22-23; September 15; October 7-8. Where two days are mentioned together, it is to be understood that the reference is to a series of 24 consecutive hours comprising parts of two consecutive days.

The plates are preceded by a brief descriptive summary of significant magnetic motions (superposed on the ordinary diurnal movement) recorded during the year.

With regard to the plates, on each day three distinct registers are given, viz.: declination, horizontal intensity, and vertical intensity marked D, H, and Z respectively.

At the foot of each plate, scales, in C.G.S. measure, are given for each of the magnetic registers and datum lines marked for each trace at the sides of the diagrams indicate the sense of change of the elements.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1938.

### GENERAL

The majority of the meteorological instruments are situated in an enclosure in Greenwich Park, 350 yards to the east of the Astronomical Observatory. In the enclosure (which will be referred to as "The Christie Enclosure") there are the thermometers used for ordinary eye observations, the recording wet-bulb and dry-bulb thermometers, thermometers for solar and terrestrial radiation, two earth thermometers, and two rain-gauges.

The anemometers, the self-registering rain gauge and the sunshine recorder are fixed above the roof of the Octagon Room (the ancient part of the Observatory). The observations comprise eye observations of the ordinary meteorological instruments, including the barometer, dry-bulb and wet-bulb thermometers, radiation and earth thermometers; continuous autographic record of the variations of the barometer, dry-bulb and wet-bulb thermometers; continuous automatic record of the direction, pressure and velocity of the wind, and of the amount of rain; registration of the duration of sunshine and, at night, of the visibility of stars near the Pole; general record of ordinary atmospheric changes of weather, including numerical estimation of the amount of cloud and estimations of "visibility"; daily measurement of the amount of sulphur dioxide polluting the air and registration and measurement of the pollution of the air by suspensoids.

*Universal time* (U.T.) - which at the Royal Observatory coincides with local mean solar time - has been employed throughout the meteorological section, except in regard to the sunshine registers (see p. xvii).

### INSTRUMENTS

**STANDARD BAROMETER.** - The standard barometer is Newman No. 64. Its tube is 0.565 inches in diameter, and the depression of the mercury due to capillary action is 0.002 inches, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to 0.05 inches, sub-divided by vernier to 0.002 inches. The barometer

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1938.

was mounted in 1840 on the southern wall of the western arm of the Upper Magnet Room at a height above mean sea level of 159 feet. On 1917 April 3, it was transferred to the new magnetograph house in the Christie Enclosure, where the height above mean sea level is 152 feet. (See also p. xviii).

The barometer is read at 9<sup>h</sup>., 12<sup>h</sup>. (noon), 15<sup>h</sup>., every day and also at some convenient time during the evening. Each reading is corrected by application of an index-correction, and reduced to the temperature 32° F. The readings thus found are used to determine the value of the instrumental base-line on the photographic record.

**THE PHOTOGRAPHIC BAROMETER.** - A siphon barometer is employed which, at its open end, operates a plunger resting on the surface of the mercury. On account of the optical magnification associated with a moving mirror at some distance from the recording drum, the motion of the plunger must be mechanically reduced in being transferred to the arm which carries the mirror. In the actual arrangement two levers are used. One is connected to the stem of the plunger, resting on the free surface of the mercury and is 12 inches long from plunger to pivot. A pin with a rounded conical point is screwed into this lever at a distance of 1 inch from the pivot. On this pin rests the plane under-surface of a shorter lever, which is 4 inches long from its pivot to the pin, and is set at right angles to the first lever. Both levers are approximately horizontal in their mean position. Just above the pivots of, and attached to the short lever is mounted horizontally, in a suitable frame, the moving mirror of the instrument. The first lever lies east and west, so that the axis about which the mirror turns is in the same direction. The recording drum is horizontal and the motion of the beam of light is transformed so as to be horizontal by a fixed right-angled prism supported above the mirror. A lens of suitable focus is mounted in a vertical plane in front of the prism, and brings the beam of light from the straight-filament lamp to a focus on the drum. A base-line mirror, similar to the moving mirror, is mounted in a vertical plane behind the lower half of the lens. Provision is made for all necessary adjustments of the directions of the two beams of light. The weight of the plunger and lever mechanism is relieved by a balance weight on the far side of the pivot, so that the plunger rests on the mercury surface without appreciably depressing it.

The instrument is 12 feet from the recording drum. At this distance the calculated scale value of the record is 3 in. on the sheet for 1 in. change of height of the mercury column of the standard barometer. (Near the surface of the mercury both arms of the siphon are of the same bore, so that the plunger moves through one half the change of the indication of the standard barometer.)

The scale value of the instrument is, in effect, determined experimentally by comparison with the readings of the standard barometer. The base-line values corresponding to the four daily readings of the latter are represented graphically by points on a chart. The adopted value at any time is read from a smooth curve drawn through the points.

The photographic sheets being 9½ inches wide, a range of over 3 inches barometric motion can be included, and change of zero is unnecessary.

**DRY-BULB AND WET-BULB THERMOMETERS.** - On 1937 December 31 the standard dry-bulb and

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1938.

wet-bulb thermometers and maximum and minimum self-registering thermometers, both dry and wet were transferred from the revolving open screen in which hitherto they had been mounted to a Stevenson screen of large dimensions which had been set up a few yards to the westward. The change had become desirable after the construction of a building of considerable size about 20 yards to the north west of the open screen in 1932. Radiation from this building in certain circumstances would tend to affect the readings in an open screen. On 1938 April 30 the old screen was erected in a new position on the north side of the Christie enclosure; and from May 1 daily readings at 9<sup>h</sup>. of maximum and minimum temperature in the open screen were resumed.

The corrections to be applied to the thermometers in ordinary use are determined by comparison with the Kew standard thermometer No. 515.

The dry-bulb thermometer used throughout the year was Negretti and Zambra, No. 45354. The correction  $-0^{\circ}.4$  has been applied to the readings of this thermometer. The wet-bulb thermometer used throughout the year was Negretti and Zambra, No. 94737. The correction  $-0^{\circ}.2$  has been applied to the readings of this thermometer.

The dry-bulb and wet-bulb thermometers are read at 9<sup>h</sup>., 12<sup>h</sup>. (noon), 15<sup>h</sup>., every day and also once during the evening. Readings of the maximum and minimum thermometers are taken at 9<sup>h</sup>., 15<sup>h</sup>., and near 21<sup>h</sup>. every day. The readings are employed to correct the indications of the recording dry-bulb and wet-bulb thermometers.

**DRY-BULB AND WET-BULB RECORDING THERMOMETERS.** - The photographic apparatus which had been in use since 1887 was superseded on 1938 January 1, by a distant-recording thermograph. The action of this instrument depends on the pressure of mercury in a long flexible capillary tube of steel. The pressure alters the curvature of a Bourdon coil which in turn controls the position of a recording pen.

The thermometers exerting the pressure are mounted in the Stevenson screen which contains also the standard thermometers. The recording mechanism is set up in the basement of the building constructed for the Yapp equatorial telescope, and the steel tube transmitting the pressure is laid in earthenware pipes buried about eighteen inches beneath the surface of the ground. The traces (in ink) showing the variations in temperature are directly visible through a window. The scale value is approximately  $20^{\circ}$  F. per inch.

**RADIATION THERMOMETERS.** - These thermometers are placed in an open position in the Christie Enclosure. The thermometer for solar radiation is a mercurial maximum thermometer with its bulb blackened and enclosed in a glass sphere from which the air has been exhausted. The thermometer employed was Negretti and Zambra, No. CG10221. The thermometer for radiation to the sky is a spirit minimum thermometer, Negretti and Zambra, No. D11197. The thermometers are laid on short gaass, freely exposed to the sky.

**EARTH THERMOMETERS.** - There are two thermometers now in use, the bulbs of which are sunk to depths of 4 feet and 1 foot respectively below the surface. Both thermometers are read daily at noon, the readings of the former being given in the daily results.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1938.

**OSLER'S ANEMOMETER.** - This self-registering anemometer, devised by Mr. A. F. Osler, for continuous registration of the direction and pressure of the wind and of the amount of rain, is fixed above the north-western turret of the ancient part of the Observatory. The direction of the wind is registered by means of a large vane (9ft. 2in. in length), connected by gearing with a rack-work carrying a pencil; the latter marks on a flat horizontally moving sheet of paper. The vane is 25 feet above the roof of the Octagon Room, 60 feet above the adjacent ground, and 215 feet above the mean level of the sea. A fixed mark on the north-eastern turret, in a known azimuth, as determined by celestial observation, is used for examining at any time the position of the direction plate over the registering table, to which reference is made by means of a direction pointer when adjusting a new sheet on the travelling board.

A circular pressure plate with an area of 192 square inches is attached 2 feet below the vane; moving with the latter, it is always kept directed against the wind. A light wind causes the plate to compress slender springs, the motion being registered on the horizontal sheet by a pencil connected with the plate by a flexible brass chain, which is always in tension. Higher wind pressures bring stiffer springs into play behind the plate, and the two sets of springs are adjusted by screws and clamps so as to afford fixed scales on the sheet, the scale for light winds being double that for heavy winds. The scale is determined experimentally in pounds per square foot from time to time. The most recent determination was made on 1934 November 20.

The recording sheet is changed daily at noon. The time scale is ordinarily 15mm. to the hour.

**ROBINSON'S ANEMOMETER.** - This instrument, for registration of the horizontal movement of the air, is mounted above the roof of the Octagon Room and was brought into use in 1866. The four hemispherical cups are 5 inches in diameter, the centre of each cup being 15 inches distant from the vertical axis of rotation. The cups are 21 feet above the roof of the Octagon Room, 56 feet above the adjacent ground, and 211 feet above the mean level of the sea. A motion of the recording pencil through 1 inch corresponds approximately to horizontal motion of the air through 100 miles. The time scale is the same as for the Osler Anemometer and the sheet is changed daily at noon.

The velocity recorded by the instrument is three times the actual velocity  $v$  of the cups. From tests made by Mr. W. H. Dines at Hershams in 1889, on his whirling machine, it would appear that the relation between the velocity of the wind  $V$  and the velocity of the cups  $v$  is approximately

$$V = 4.0 + 2.0 v$$

and that the instrument fails to record wind velocities less than 4 miles per hour. The values of the wind velocity given by the formula  $V = 3v$  would thus be too high when  $V$  exceeds 12. Since the two formulæ agree, however, for  $V = 12$ , the mean values of the wind velocity (which seldom differ much from 12) will be approximately correct in either case. Until 1931, for the sake of continuity and simplicity the formula  $V = 3v$  was retained in use, although the greatest hourly measures according to the revised formula were given in a table at the end of the volumes. From 1932 January all measures have been calculated from the revised formula.

**RAIN GAUGES.** - During the year 1938 three rain gauges were employed, placed at different elevations above the ground.

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The gauge No. 1 forms part of the Osler Anemometer apparatus, and is self-registering, the record being made on the sheet on which the direction and pressure of the wind are recorded. The apparatus is fully described in volumes previous to 1914.

Gauge No. 6 is an 8-inch circular gauge placed with the receiving surface 5 inches above the ground. No. 8 is a newer gauge of the same diameter, but of the modified Snowdon pattern adopted by the Meteorological Office, having its receiving surface 1 foot above the ground. It was brought into use 1908 January 1, being fixed SW by W from No. 6 with a clear space of 6 feet between the rims. No. 6 is the standard gauge, and is read daily at 9<sup>h.</sup>, 15<sup>h.</sup>, and in the evening. No. 8 is used as a check on the readings of No. 6 and is read at 9<sup>h.</sup> only as a rule. The gauges are also read at midnight on the last day of each calendar month.

The erection in the Christie Enclosure of a building to the north-west of gauges 6 and 8 to accommodate a large equatorial telescope made desirable the removal of these gauges to new positions. The removal was carried out on 1932 September 29, the new sites being approximately 42 feet east of the old ones.

The present height of the Standard Gauge above mean sea-level is 5 feet 9 inches less than in its old position in the Observatory Grounds, before its removal to the Christie Enclosure in 1899 January.

The monthly amounts of rain collected in gauges Nos. 6 and 8 are given on page D.82 of the Meteorological Results.

**SUNSHINE RECORDER.** - The hourly results relate to *apparent* time. The instrument in use is of the Campbell-Stokes pattern, with 4-inch glass globe. It was examined at the Meteorological Office on September 13, 1926, and was found to be in satisfactory condition. It now bears the serial number M.O. 113. The recorded durations are those of *bright* sunshine, no register being obtained when the sun shines faintly through fog or cloud, or is very near the horizon. Conformity with Meteorological Office standards of measurement is maintained as far as possible, and with this in view independent measures of eight selected sunshine cards taken from the months of April and October, 1938, have been made at the Meteorological Office. These showed good agreement with the Greenwich estimations.

**NIGHT-SKY RECORDER.** - The object of this instrument is to supplement the daily sunshine record, in so far as it gives an indication of the amount of cloud.

It consists of a small camera constructed of wood, mounted on a brick pier in the court-yard to the north of the Transit Pavilion, and permanently directed towards the Celestial Pole.

The lens is of 18.8 inches focal length and 0.8 inch aperture. The actual camera is enclosed in a larger box about twice its length, extending nine inches beyond the lens. The lens itself is further surrounded by a hood. Adequate protection from dew is thus obtained, and also from rain, except when driven hard from the north. The photographic plates used are ordinary quarter-plate (3½ inches by 4½). Exposure is intended to be made during the



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period that the sun remains more than  $10^{\circ}$  below the horizon. The period thus centres approximately to apparent midnight, but in practice the mean times of commencing and ending the exposure are not varied at intervals of less than seven days.

The traces selected for measurement are those of Polaris and of  $\delta$  Ursae Minoris. The measurement is effected by means of a glass scale, on which pairs of concentric circles are photographically imprinted. The radii of these circles are slightly greater and slightly less than the radius of the trace to be measured, and the circles are divided into a time scale of hour-angle, with ten-minute units. The plate is placed over the scale in a measuring frame, and adjusted so that the trace is concentric with the containing circles on the scale. The hour-angle of the star, according to the scale, at the commencement and ending of the various portions of the trace is then read off to the nearest minute of time.

The correction for error of orientation of the plate is made during the computation of mean time corresponding to hour-angle of star, in the following manner:- Whenever the sky is seen to be clear at the commencement of exposure, the difference between the hour-angle given by the scale for the beginning of the trace and the corresponding mean time noted by the observer is taken as the quantity to be applied to the scale readings throughout the night, due allowance being made for the acceleration of sidereal time over mean time. When the sky is not clear at commencement, a computed quantity is used which includes an adopted mean value of the error of orientation. Variations in the error of orientation are found seldom to exceed two or three minutes of time, and are unimportant to the records.

**REDUCTION AND ARRANGEMENT OF RESULTS.**-The results given in the Meteorological Section refer to the day commencing at  $0^h$  U.T., except in the case of the Night-Sky Recorder, for which they relate to the period for dusk on the day named, to dawn of the following day.

All results in regard to atmospheric pressure, temperature of the air and of evaporation, with deductions therefrom, are derived from the continuous records, excepting that the maximum and minimum values of air temperature are those given by eye-observation of the ordinary maximum and minimum thermometers, reference being made, however, to the autographic register when necessary to obtain the values corresponding to the limits "midnight to midnight". The hourly readings for the elements mentioned are measured direct from the traces, and reduced so as to be based fundamentally, both as regards scale and zero, on the readings of the standard barometer, dry-bulb and wet-bulb thermometers.

The barometer results are not reduced to sea-level, neither are they corrected for the effect of gravity, by reduction to the latitude of  $45^{\circ}$ . The monthly mean barometer reading is, however, corrected for the effect of the change of site of April 1917 before deducing the deviation from the mean of sixty-five years 1841-1905 (p. D. 50-72). This correction, amounting to  $-.007$  inch, was by oversight omitted in the years 1917-1926.

From 1926 January 1 the mean daily temperature of the dew-point and degree of humidity have been deduced from the mean daily temperatures of the air and of evaporation by use of *Hygrometric Tables* issued by the Meteorological Office, Air Ministry.

In the same way the mean hourly values of the dew-point temperature and degree of humidity in

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1938.

each month (pages D. 77 and D. 78) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages D. 76 and D. 77).

The excess of the mean temperature of the air on each day above the average of sixty-five years, given in the "Daily Results of the Meteorological Observations," is found by comparing the numbers contained in column 5 with a table of average daily temperatures found by smoothing the accidental irregularities of the daily means reduced from the observations for the sixty-five years 1841-1905. In this series the mean daily temperature from 1841 to 1847 depends usually on 12 observations daily, in 1848 on 6 observations daily, and from 1849 to 1905 on 24 hourly readings from the photographic record. The smoothed numbers are given in Table VII, *Reduction of the Greenwich Meteorological Observations*, Part IV and also in the introduction for 1910. In the case of maximum and minimum temperature the average of 65 years has been corrected for the presumed effect of the change of thermometer-screen which took place on 1938 January 1. The corrections are given below. They were derived from comparisons between readings in the revolving stand and in a closely adjacent Stevenson screen, recorded daily during the period 1900 April to 1913 December.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	°	°	°	°	°	°	°	°	°	°	°	°
Maximum Temp.	0.0	-0.3	-0.6	-1.1	-1.7	-1.8	-2.1	-1.9	-1.1	-0.5	-0.1	0.0
Minimum Temp.	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.6	+0.6	+0.6	+0.5	+0.5

The daily register of rain contained in column 16 is that recorded by the gauge No. 6, whose receiving surface is 5 inches above the ground. (See page xvii.) The continuous record of Osler's self-registering gauge shows whether the amounts measured at 9<sup>h</sup>. are to be placed to the same, or to the preceding day; and in cases in which rain fell both before and after midnight, also gives the means of ascertaining the proper proportion of the 9<sup>h</sup>. amount which should be placed to each day. The number of days of rain given in the footnotes, and in the abstract tables, pages D. 75 and D. 82, is formed from the records of gauge No. 6. In this numeration only those days are counted on which the fall amounted to or exceeded .005 inch.

No particular explanation on the anemometric results is necessary. It may be understood generally that the greatest pressures usually occur in gusts of short duration. The "Mean of 24 Hourly Measures" was in former years the mean of 24 measures of pressure taken at each hour; but commencing with 1887 January 1, it is the mean of measures, each one of which is the average pressure during the hour of which the nominal hour is the middle point.

With regard to the "Proportions of Wind referred to the cardinal points" in the monthly summary of pp. D. 50 - 73, formerly the figures were such that the whole month was represented by the number of days in the month. In the "Results" for 1933 a change was made, and the whole month is now represented by 100, so that the figures are the equivalent of "percentages".

The mean amount of cloud given in the footnotes on the right-hand pages D. 51 to D. 73, and in the abstract table, page D. 75, is the mean found from observations made at 9<sup>h</sup>., 12<sup>h</sup>. (noon),

GREENWICH METEOROLOGICAL OBSERVATIONS, 1938.

15<sup>h</sup>., and 21<sup>h</sup>. each day.

As regards the notation for clouds and weather, several changes were made in the 1934 volume in order to bring the symbols into general accordance with those in use at the British Meteorological Office.

The following are the symbols which have been adopted. Where a change from the symbol previously in use has been made, an asterisk (\*) is placed after the word or words for which the symbol stands.

BEAUFORT WEATHER NOTATION.

(modified in conformity with the usage of the British Meteorological Office).

b,	blue sky (less than one quarter covered with cloud)
bc,	sky partially cloudy (less than three-quarters covered)
c,	sky generally cloudy, but not completely overcast
d,	drizzle
e,	wet air without falling rain
f,	fog, with objects invisible distant more than 1100 yards
F,	fog, with objects invisible distant more than 220 yards
g,	gloom (*)
h,	hail (*)
i,	intermittent
k,	storm (in combination with other symbols) (*)
l,	lightning
m,	mist, with limit of visibility between 1100 and 2200 yards
o,	sky overcast with unbroken cloud
p,	passing showers (*)
q,	squall (*)
r,	rain
s,	snow (*)
rs,	sleet (*)
t,	thunder
u,	threatening sky
v,	exceptional visibility; i.e. abnormal transparency of air
w,	dew (*)
x,	hoar frost (*)
y,	dry air; i.e. relative humidity less than 60 per cent.
z,	haze (*)

A capital letter indicates "intense"

The suffix *o* indicates "slight"

A letter repeated indicates "continuous"

CLOUD FORMS (\*)

<i>Acu,</i>	Alto-cumulus	<i>Cist,</i>	Cirro-stratus	<i>St,</i>	Stratus
<i>Ast,</i>	Alto-stratus	<i>Cu,</i>	Cumulus	<i>Stcu,</i>	Strato-cumulus
<i>Ci,</i>	Cirrus	<i>Cumb,</i>	Cumulo-nimbus	<i>Fr,</i>	Fracto-
<i>Cicu,</i>	Circo-cumulus	<i>Nbst,</i>	Nimbo-stratus		

ADDITIONAL SYMBOLS

<i>lu-ha,</i>	lunar halo	<i>prhn,</i>	Parhelion	<i>so-ha,</i>	solar halo
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ROYAL OBSERVATORY, GREENWICH.  
ABINGER MAGNETIC STATION.

# Results of Magnetic Observations

**1938**



TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER - continued

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>		
March																											
10° + Tabular Quantities																											
1 **	58.1	59.4	58.7	60.5	62.8	62.0																					
† 2	64.2	65.5	64.5	64.1	63.1	63.1	63.8	61.9	60.5	61.5	63.5	67.9		70.0	73.8	74.1	70.6	67.8	64.1		65.0	58.0	61.6	60.7	59.7	63.6	
3	63.8	63.6	63.7	61.5	62.3	62.3	62.8	62.2	61.9	62.4	64.6	67.7		70.9	72.4	72.7	70.4	68.4	66.4		64.1	64.1	64.4	64.6	64.3	64.4	
4	64.5	64.3	64.2	64.1	65.0	64.2	63.8	63.7	62.3	61.4	61.9	64.5		67.9	70.0	70.2	70.0	69.2	68.0		66.8	64.0	61.4	62.9	63.8	62.3	
5 **	63.7	63.8	63.9	63.6	63.7	63.0	61.4	62.7	63.7	62.8	65.2	67.7		72.1	75.4	78.4	81.2	83.9	79.4		69.4	65.0	59.4	60.5	62.3	63.2	
6	59.9	57.7	59.0	58.6	59.5	60.8	61.3	61.6	62.8	63.1	64.9	66.2		68.6	68.9	69.5	68.8	67.3	66.3		65.6	65.2	65.9	63.1	60.3	62.0	
7	62.6	63.9	62.9	63.2	63.1	62.8	63.9	64.4	63.9	63.0	64.7	66.7		69.6	72.6	72.4	71.8	70.7	68.7		66.8	65.3	65.0	64.4	63.5	63.0	
8	62.1	62.3	62.5	62.9	62.5	61.7	62.9	63.3	62.1	61.7	62.7	65.2		68.8	70.9	71.1	70.7	68.5	67.1		66.6	66.5	66.0	65.2	61.8	62.6	
9	63.4	63.6	63.5	63.0	62.9	63.2	63.7	63.4	62.1	61.2	62.5	63.4		69.1	70.1	70.3	69.7	67.4	66.5		65.6	66.1	66.0	64.7	62.1	62.9	
10 *	62.6	63.0	63.4	63.7	64.1	62.9	64.2	63.8	62.5	62.5	64.5	67.9:		69.2	70.1	70.4	68.8	67.4	66.5		66.1	66.1	66.0	65.5	65.1	64.5	
† 11	64.3	64.2	64.1	63.7	63.4	62.9	63.3	62.3	60.7	61.1	63.9	66.5															
† 12														70.8	72.1	74.3	71.0	66.1	65.6		66.4	65.8	65.6	64.7	64.3	64.7	
13	64.7	64.5	64.3	64.2	64.2	62.9	62.9	62.0	61.1	61.6	64.3	66.8		69.7	69.6	69.7	67.8	66.1	66.2		66.2	66.0	65.6	65.2	65.2	65.2	
14	61.4	62.4	63.1	66.5	64.1	62.4	62.4	62.9	61.8	63.7	64.7	70.9		72.0	73.3	72.7	69.7	67.0	65.9		65.2	64.8	62.1	63.7	64.6	64.7	
15	60.1	63.5	64.7	64.2	66.4	63.4	62.6	60.6	59.1	60.6	64.5	70.4		73.1	72.9	72.7	69.8	66.8	64.4		63.7	62.8	61.9	63.3	64.8	64.6	
16 *	64.8	64.9	64.7	64.1	63.5	63.2	62.8	61.0	59.7	59.4	63.5:	66.7:		72.1	73.1	71.8	69.1	66.4	66.0		65.7	64.8	64.3	63.7	64.3	64.1	
17	64.6	65.0	63.3	63.3	63.3	63.1	62.2	60.6	59.0	59.2	62.8	67.8		71.4	73.6	73.3	70.5	67.5	65.7		65.7	65.1	64.6	64.4	64.6	64.6	
18 *	63.9	64.2	64.6	64.2	63.7	63.3	62.6	61.7	60.1	60.1	62.6	67.8		71.8	72.9	72.3	70.3	67.8	66.0		65.5	64.6	65.0	64.9	64.9	64.6	
19 *	64.6	64.4	64.1	63.8	63.7	63.2	63.4	61.5	59.2	58.3	61.2	65.7		69.5	72.1	72.3	70.8	68.4	66.5		65.9	65.5	65.0	64.8	64.6	64.6	
20 *	64.6	64.1	64.1	63.6	63.4	63.2	62.5	60.9	58.9	58.8	62.1	66.9		70.9	72.7	72.2	70.0	67.6	66.3		66.2	65.6	65.4	65.3	64.6	64.0	
21	63.3	61.8	62.4	62.9	62.7	62.8	61.9	59.9	58.4	58.8	62.1	67.3		70.9	72.7	71.0	69.1	67.2	66.4		66.0	65.6	65.5	63.1	64.7	60.1	
22 **	61.3	61.7	65.3	63.5	62.6	64.2	72.6	68.9	62.9	63.9	69.8	71.6		74.7	78.5	74.0	74.6	68.4	66.8		65.5	65.7	65.4	63.0	61.0	52.2	
23 **	49.8	51.1	57.9	55.1	55.8	58.2	62.4	61.0	61.2	61.9	64.2	66.2		69.1	70.5	69.1	67.2	65.4	65.3		64.6	60.1	58.8	60.1	57.2	56.9	
† 24 **	42.1	49.8	48.0	54.9	61.0	66.9	70.5	70.0	63.4	62.2	66.4	66.8		68.9	69.2	68.1	66.4	64.9	64.8		64.6	64.6	64.7	62.4	60.4	62.8	
† 25	62.9	61.9	62.3	61.4	61.5	61.4	61.9	61.0	60.1	60.1	63.6										61.4	60.0	61.7	54.2	58.7	55.3	
26	53.8	52.9	53.9	59.2	61.4	61.7	61.4	59.9	59.6	61.4	65.9	70.6		70.9	71.1	69.5	69.0	66.3	63.4		62.3	62.1	63.2	63.9	63.2	62.8	
27	62.7	63.9	62.3	62.3	61.9	61.4	60.9	60.2	59.2	60.1	62.9	67.7		69.8	70.8	69.5	67.1	65.3	64.5		64.5	64.3	62.8	63.0	64.1	64.3	
28	63.8	64.0	61.8	63.0	61.8	61.0	60.4	58.7	58.1	59.6	64.1	68.8		70.7	71.3	70.2	67.2	65.7	65.2		65.0	65.0	65.2	65.2	64.8	63.0	
† 29	62.1	63.0	62.5	62.8	62.5	62.1	60.8	58.5	58.7	57.9	61.5	67.6:			73.6	73.1	69.1:		64.4:		62.6	64.9	64.9	64.8	64.5	64.4	
30	64.3	63.9	63.9	64.4	64.1	62.6	61.2	58.6	58.5	60.3	64.9	69.3		72.2	72.5	70.2	67.3	65.1	64.8		65.2	64.9	64.5	64.5	64.7	64.4	
31	63.9	63.8	63.7	63.5	63.0	62.2	60.8	57.2	55.4	56.5	60.1	66.6		70.2	71.3	70.3	67.8	65.3	65.0		65.3	65.1	64.4	63.5	63.3	63.5	
† Mean (26 days)	61.3	61.8	62.1	62.5	62.8	62.6	63.1	62.0	60.7	61.0	63.9	67.6		70.5	72.0	71.5	69.8	67.8	66.4		65.5	64.5	64.0	63.7	63.2	62.9	
Mean *	64.1	64.1	64.2	63.9	63.7	63.2	63.1	61.8	60.1	59.8	62.8	67.4		70.7	72.2	71.8	69.8	67.5	66.3		66.9	65.3	65.1	64.8	64.7	64.4	
Mean **	55.0	57.2	58.8	59.5	61.2	62.9	66.1	64.9	62.3	62.5	65.8	68.0		71.0	73.5	72.7	72.0	70.1	68.1		65.8	62.7	62.0	61.3	60.1	59.7	
† March 2, 11, 12, 25, 29 omitted when computing means.																											
April																											
10° + Tabular Quantities																											
1	62.8	63.1	63.5	63.3	62.8	61.8	59.9	57.2	55.6	57.2	61.7	67.3		71.4	73.5	73.1	71.4	69.8	68.5		67.3	66.6	64.9	64.9	64.8	64.4	
2 *	64.2	64.0	63.9	63.5	63.1	62.5	60.7	58.0	55.8	57.0	62.1	67.5		71.4	73.4	72.4	69.7	67.4	65.9		65.7	65.2	64.3	64.8	63.6	63.4	
3	63.8	64.2	62.6	62.4	62.9	62.6	61.4	59.3	57.4	57.9	62.2	68.3		73.1	74.6	73.0	71.0	68.2	66.0		64.2	64.8	64.3	64.2	64.6	63.5	
4	63.2	63.9	62.5	63.6	62.9	61.3	60.4	58.4	57.4	58.2	64.1	68.6		73.5	74.5	72.3	69.9	67.2	64.5		64.2	64.3	64.5	63.9	63.6	63.3	
5 *	63.2	63.2	63.0	62.8	62.8	62.3	60.5	58.7	57.8	58.2	62.8	66.8		69.9	70.9	69.7	67.9	65.8	64.8		64.3	64.4	63.9	64.0	64.0	63.3	
6	62.8	63.6	63.7	62.7	60.7	59.4	57.8	55.3	57.4	62.3	63.4	67.0		72.4	73.6	72.6	71.2	69.0	66.4		65.4	60.5	61.9	62.9	62.2	61.6	
7	63.3	63.0	65.0	65.4	63.1	61.7	60.6	57.8	56.3	57.7	61.6	67.6		70.5	72.1	71.7	70.3	68.7	64.7		64.0	64.5	64.3	63.6	63.1	62.7	
8	62.2	62.2	62.1	62.2	61.9	60.9	59.1	57.3	56.8	59.4	62.5	68.0		70.3	71.7	71.2	68.9	66.3	64.0		63.6	64.5	63.6	63.1	63.7	64.2	
9	64.1	63.6	63.2	62.3	62.3	61.9	60.2	58.3	57.9	60.2	63.6	69.6		73.2	72.4	69.7	69.2	67.4	65.6		64.4	60.8	62.2	64.4	63.9	60.8	
10	62.1	63.2	64.5	63.6	62.6	61.9	60.4	58.2	57.5	59.8	65.9	71.7		74.5	74.3	71.3	66.9	63.3	63.2		63.9	65.1	65.3	65.0	64.6	64.2	
11	63.9	63.9	63.4	63.1	62.9	6																					

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER - continued

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>				
<b>May</b>																													
10° + Tabular Quantities																													
1 *	63.4	63.0	62.8	61.8	60.5	58.9	56.9	55.3	56.2	59.0	63.0	66.1	68.0	67.8	66.4	65.5	65.0	64.6	64.2	63.7	62.9	62.5	61.5	60.9					
2	61.6	61.6	61.6	61.2	59.9	58.9	57.7	56.2	56.9	59.8	64.7	69.2	72.7	73.5	69.7	68.9	65.1	63.2	63.1	63.4	63.7	63.5	62.0	61.2					
3	60.7	61.6	62.1	61.6	63.6	66.4	62.4	59.4	58.6	60.3	63.6	68.8	71.9	72.4	71.9	71.7	69.5	67.7	63.4	60.4	62.3	62.8	58.4	58.1					
4 **	56.6	54.4	51.0	55.0	63.1	59.9	55.9	57.5	58.6	59.5	61.1	64.9	69.2	73.0	71.9	73.5	70.6	72.1	71.2	68.1	63.6	63.8	62.9	62.0					
5	62.2	61.7	64.6	62.1	59.8	58.6	56.6	55.5	55.6	58.6	59.9	63.9	68.5	68.3	67.6	67.2	66.5	62.4	62.8	59.6	62.1	63.4	63.2	61.6					
6	58.6	59.8	60.2	60.7	62.0	62.8	60.5	57.3	57.5	59.3	62.0	65.8	69.2	71.9	71.3	68.6	66.5	65.1	64.3	64.0	63.1	62.7	62.1	62.1					
7	61.6	61.3	61.4	60.9	60.2	59.3	58.2	57.1	58.4	58.9	61.3	63.7	67.4	68.8	67.4	66.7	64.0	63.6	63.9	63.7	63.6	63.2	63.1	62.7					
8 *	62.5	62.3	62.0	61.8	61.4	61.8	59.6	57.4	58.1	59.6	61.7	65.1	68.1	68.8	67.4	66.0	65.1	64.3	63.4	62.9	62.9	62.4	62.4	62.9					
9	62.8	62.3	62.2	61.9	60.6	58.8	57.9	57.6	57.9	59.6	62.4	65.1	68.8	67.2	66.4	64.6	63.2	62.7	62.6	62.7	63.2	63.7	63.1	60.9					
10	61.4	65.0	61.8	60.5	59.6	60.1	58.3	56.0	56.9	60.0	62.7	64.6	67.7	68.1	67.7	66.5	64.2	62.8	62.7	61.8	63.0	63.5	63.2	62.7					
† 11 **	63.1	62.6	62.3	61.7	57.4	57.3	55.9	55.9	58.2	61.8	65.0	67.2	70.8	70.6	69.0	67.5	67.9	68.5	58.2	53.7	52.1	38.8	40.2	30.3					
12 **	51.0	53.4	56.2	55.8	54.6	53.5	59.1	58.6	55.1	58.2	63.6	65.2	67.9	68.9	66.8	65.9	64.7	62.2	61.4	58.7	57.7	60.5	60.9	57.3					
13	63.6	58.0	59.9	59.6	58.7	56.9	55.2	54.2	54.6	57.4	62.5	66.6	69.5	68.6	67.2	65.3	63.2	61.7	60.9	61.4	61.3	60.3	61.7	61.4					
14 **	60.7	61.7	60.0	56.2	56.4	56.4	58.3	54.3	54.6	57.3	62.9	66.8	73.8	76.0	74.3	67.0	66.3	63.8	61.7	60.3	60.9	59.0	60.6	59.6					
15	60.3	54.1	60.2	61.8	62.6	62.6	57.0	54.6	55.5	56.8	60.9	64.4	68.3	70.3	70.0	69.0	66.1	63.2	62.4	62.9	63.3	63.2	60.9	61.3					
16	61.7	60.7	61.7	62.8	63.4	64.0	61.8	60.9	56.9	58.8	59.3	62.5	66.2	67.8	68.3	66.6	65.1	64.6	61.6	58.6	60.4	61.9	61.9	61.3					
17	60.4	60.3	59.9	61.0	60.4	58.4	59.0	59.3	57.6	57.1	59.8	61.7	66.2	67.3	67.0	65.9	65.2	62.8	63.1	60.0	60.1	61.3	63.3	62.3					
18	61.0	60.4	61.6	60.2	58.3	58.9	56.8	55.2	55.9	57.4	61.7	65.3	68.0	68.0	66.4	64.9	63.4	62.4	61.6	62.1	62.3	62.8	63.1	62.7					
19	62.4	62.5	61.6	60.7	59.2	57.6	57.1	56.6	57.6	60.2	64.3	67.9	69.2	68.6	67.9	65.7	62.2	62.0	61.6	61.1	60.3	61.9	62.2	61.7					
20 *	61.2	60.7	60.8	60.5	59.4	57.7	56.1	55.8	56.7	58.9	62.1	65.5	67.7	67.7	67.0	66.1	64.3	62.7	61.2	61.5	61.5	60.8	62.6	62.5					
21	61.5	62.4	62.2	60.8	59.1	57.7	56.0	53.3	53.3	55.0	59.7	62.8	65.6	67.6	68.1	67.6	66.0	64.2	63.3	63.1	62.9	62.4	61.8	61.5					
22	61.4	61.0	60.6	59.9	60.5	59.1	57.8	56.3	56.3	58.3	62.2	65.1	67.8	68.0	67.8	66.9	64.4	63.7	62.8	63.0	62.9	62.5	62.3	60.6					
23 *	60.5	60.2	59.7	60.2	59.3	57.8	56.6	56.4	56.4	58.8	61.7	64.4	65.7	65.0	64.7	64.0	63.2	63.3	64.1	63.7	63.4	62.9	62.5	62.2					
24	61.9	61.3	60.6	59.7	58.2	56.6	56.1	56.1	57.0	57.9	60.7	62.7	65.1	66.0	65.3	64.2	64.7	60.6	62.0	63.4	62.6	62.9	60.6	60.5					
25	57.9	58.1	58.1	57.6	55.4	54.8	55.7	56.7	59.7	62.2	65.0	66.7	66.5	66.1	65.1	64.2	63.4	63.2	64.2	64.2	65.6	62.9	62.8	61.9	61.6				
† 26 *	61.5	61.4	60.9	61.1	-	-	-	-	-	-	62.9	64.5	66.0	66.5	65.9	64.6	63.3	63.4	63.6	63.1	62.4	62.2	62.0	62.0					
27	61.2	61.1	60.9	62.4	61.2	57.7	56.6	57.0	57.9	58.4	61.5	64.4	66.0	68.1	67.8	66.9	65.1	63.6	60.6	61.5	63.5	64.2	64.5	63.1					
28	62.7	62.2	61.3	60.5	57.8	54.1	52.7	57.9	61.2	63.3	64.2	66.0	67.8	68.1	67.8	66.7	65.1	62.8	62.9	63.3	63.8	61.9	62.2	62.8					
29 **	63.2	60.7	57.1	54.7	58.0	60.7	58.9	58.7	58.3	60.7	63.4	66.5	70.6	72.6	72.6	69.7	70.9	64.8	62.5	62.2	63.4	60.7	59.5	57.8					
30	58.9	60.6	59.8	59.4	58.0	55.8	53.1	53.3	56.1	58.9	62.5	66.1	69.5	71.1	70.6	68.1	66.3	63.9	61.6	60.7	58.9	60.7	62.4	62.5					
31	61.0	58.9	58.6	58.5	58.0	57.9	57.3	58.2	60.7	61.6	64.3	67.5	71.0	72.3	70.1	67.9	66.8	64.8	63.3	60.6	61.4	61.6	61.3	60.7					
† Mean (29 days)	60.8	60.4	60.4	60.0	59.6	58.8	57.4	56.6	57.1	59.0	62.2	65.4	68.3	69.2	68.4	66.9	65.4	63.8	62.9	62.2	62.3	62.3	62.0	61.3					
† Mean * (4 days)	61.9	61.6	61.3	61.1	60.2	59.1	57.3	56.2	57.0	59.1	62.1	65.3	67.4	67.3	66.4	65.4	64.4	63.7	63.2	63.0	62.7	62.2	62.3	62.1					
† Mean ** (4 days)	57.9	57.6	56.1	55.4	58.0	57.6	57.6	57.3	56.7	58.9	62.8	66.4	70.4	72.6	71.4	69.0	68.1	65.7	64.2	62.3	61.4	61.0	61.0	59.2					
† May 11 and 26 omitted when computing means																													
<b>June</b>																													
10° + Tabular Quantities																													
† 1 **	61.1	61.2	60.5	59.8	59.8	57.6	55.8	55.2	56.9	57.6	59.8	63.4	66.6	68.4	68.8	67.6	65.6	64.5	63.5	62.5	62.1	61.8	62.4	62.1					
2	61.6	61.5	-	-	-	-	55.8	55.3	56.2	58.9	63.0	66.4	69.6	70.7	71.3	71.9	70.2	67.5	65.7	63.8	60.3	59.4	57.0	61.6					
3	60.2	59.3	61.6	60.8	59.3	57.4	54.9	54.9	56.5	58.9	63.0	67.0	68.4	68.5	68.2	65.9	63.9	63.0	63.0	63.3	63.1	62.7	61.4	60.4					
4 *	61.9	61.6	62.4	62.7	59.2	56.1	54.8	54.9	56.6	59.3	62.9	65.9	67.4	67.4	67.3	66.3	64.2	62.4	62.2	62.4	62.9	62.9	62.8	62.8					
5	62.4	63.3	61.1	57.5	53.0	53.0	53.8	54.7	55.1	57.0	61.5	64.7	67.1	67.5	68.3	67.4	66.5	65.1	63.8	63.4	63.3	62.9	62.6	62.8					
6	63.4	63.4	62.4	60.1	57.9	55.7	55.4	57.1	58.8	60.2	62.5	65.0	66.8	69.6	69.6	68.5	65.2	64.2	63.3	62.9	62.9	61.3	63.8	64.2	63.5				
7	62.9	62.4	61.1	60.4	57.9	55.7	54.8	55.6	57.1	60.2	62.9	65.0	66.4	66.5	66.0	65.6	64.2	63.4	62.8	62.6	62.9	63.3	63.8	64.2					
8 **	63.5	63.2	59.2	61.9	64.6	57.4	58.1	58.9	57.1	59.1	62.3	64.9	67.5	67.3	66.4	66.3	66.8	64.1	63.2	62.9	61.5	62.8	61.9	61.8					
9	62.3	63.0	61.9	61.0	60.4	57.4	55.5	54.7	55.1	56.9	60.0	63.2	64.9	66.8	67.2	66.4													



TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER - continued

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>			
<b>July</b>																												
10° + Tabular Quantities																												
1	62.3	61.1	61.9	64.1	63.3	58.7	53.4	52.3	52.4	57.0	63.2	65.1	69.1	70.4	70.0	68.4	66.4	61.9	62.2	60.8	60.8	59.7	59.6	61.0				
2	57.0	59.2	58.5	59.0	60.1	64.6	61.3	59.0	58.5	58.8	59.7	62.0	64.8	66.0	67.7	67.3	65.7	63.4	61.9	61.9	61.5	61.5	61.9	61.8				
3 *	61.0	60.6	60.1	60.1	58.8	59.2	57.4	58.1	55.1	56.5	60.2	64.0	65.0	65.9	67.3	67.8	66.7	65.0	62.7	61.5	61.8	61.9	61.9	61.5				
4 **	61.3	61.4	61.5	62.0	61.0	58.9	56.5	57.5	57.2	58.7	61.0	63.3	68.7	70.2	69.2	70.4	70.5	68.7	65.1	58.8	57.4	52.0	58.2	61.5				
5	61.9	60.6	59.7	59.5	58.7	54.5	53.8	54.3	55.2	57.1	59.4	62.8	65.4	67.8	67.5	68.0	68.5	66.8	65.1	63.1	62.6	62.6	62.0	62.0				
6	61.1	60.5	59.3	58.8	61.2	58.8	57.9	57.6	57.2	57.9	59.2	62.8	66.0	68.4	65.9	65.5	65.5	63.2	60.9	60.8	61.9	61.9	62.4	62.0				
7	61.8	60.6	60.2	59.7	58.8	58.2	55.9	53.9	54.3	55.5	58.3	62.4	66.1	69.6	70.5	68.7	66.0	63.2	61.9	61.5	61.1	61.4	61.0	61.9				
8	61.1	61.5	60.6	61.4	60.1	58.8	56.1	58.8	56.5	57.9	59.2	61.8	64.6	67.4	68.3	67.5	66.0	64.1	62.0	60.5	60.4	61.5	61.9	61.5				
9	61.5	61.5	60.7	59.7	58.9	58.0	56.8	54.4	54.0	55.2	57.9	61.8	65.7	67.5	67.5	66.7	63.5	61.5	60.9	61.2	59.9	61.1	60.7	53.6				
10 **	54.2	55.4	63.1	60.0	62.7	60.4	57.9	56.8	59.8	61.3	61.8	65.8	69.5	69.5	69.7	68.6	66.8	65.4	63.2	61.5	60.5	61.9	60.2	63.7				
11	64.9	63.7	65.0	62.3	59.5	56.5	53.3	52.0	52.7	55.2	58.3	61.2	63.7	65.1	65.0	63.6	62.3	60.5	59.2	59.1	59.2	60.0	60.4	60.5				
12	60.4	60.1	60.2	59.9	58.9	58.9	55.7	54.7	54.7	56.1	59.2	63.1	66.6	69.1	70.0	69.8	67.7	64.6	62.9	62.2	61.9	61.5	61.3	60.8				
13	60.5	60.0	59.4	58.7	56.7	54.1	53.1	52.6	52.5	54.9	58.0	61.9	65.0	66.7	66.3	64.6	64.4	63.7	62.3	61.4	62.7	62.5	61.9	56.6				
14	54.6	57.5	62.3	60.1	54.7	53.4	51.4	52.4	54.7	58.3	60.9	66.1	69.1	68.2	68.0	67.3	66.3	63.7	61.0	60.1	60.0	59.8	60.6	61.4				
15 **	60.2	61.0	60.9	61.1	58.3	57.7	56.7	56.5	60.1	57.4	61.4	65.9	67.3	72.0	71.3	72.6	70.9	66.3	57.7	56.3	56.6	54.4	53.2	56.9				
16 **	61.1	61.6	58.7	58.9	58.2	52.9	49.7	50.8	53.2	57.8	63.0	64.5	65.9	66.6	67.7	67.9	66.5	65.2	62.9	62.5	60.0	61.0	60.8	60.2				
17	60.5	60.0	59.6	59.8	57.9	58.9	56.4	53.2	53.2	55.1	58.7	62.3	65.2	66.4	66.3	65.0	63.7	61.9	60.6	59.7	60.1	60.8	60.5	60.1				
18	59.5	59.2	59.2	59.1	58.0	57.3	56.0	55.2	53.8	55.2	59.5	64.1	67.7	68.2	68.1	67.2	65.5	63.7	62.8	62.2	61.9	62.1	61.5	61.0				
19	62.5	57.5	57.8	58.2	57.8	57.2	54.8	54.1	54.4	56.5	61.4	65.0	66.8	67.5	66.8	65.0	63.0	62.4	60.8	61.3	61.0	61.4	60.8					
20	60.7	60.5	60.4	60.9	59.6	58.5	56.0	56.9	56.0	55.1	56.0	61.4	64.9	67.0	66.8	66.8	64.9	62.3	61.2	60.5	60.5	60.5	58.7	58.9				
21	59.4	61.6	60.5	58.8	57.3	56.9	56.8	56.2	56.1	58.2	60.5	61.8	63.4	65.9	65.9	65.4	64.7	62.6	61.8	62.2	61.6	61.4	61.3	61.4				
22	60.8	59.9	60.2	60.5	58.7	55.8	55.9	55.1	55.3	58.0	60.4	64.4	66.6	67.2	67.4	65.8	64.6	62.2	61.0	61.4	61.6	61.8	62.0	61.8				
23	61.0	60.7	60.7	60.7	58.2	58.3	53.6	53.3	53.7	55.7	60.0	64.0	66.7	68.2	67.7	66.7	63.7	60.2	60.5	61.6	61.5	61.4	60.2	60.7				
24	60.7	59.2	58.2	58.0	58.3	54.0	54.5	56.0	57.7	59.6	62.7	66.7	68.7	69.0	67.3	64.7	62.7	59.9	60.7	61.7	62.6	62.0	61.9	61.7				
25 *	60.7	59.7	59.7	58.8	57.4	55.7	54.9	54.7	54.7	56.7	60.3	63.9	67.7	69.4	68.7	66.7	63.7	60.9	59.7	60.7	60.9	61.7	61.7	61.3				
26 *	61.2	60.9	59.9	59.7	57.4	55.1	53.0	53.2	54.9	58.7	61.7	65.7	68.7	69.5	68.0	66.1	62.7	60.3	59.7	60.6	60.7	61.0	61.0	60.7				
27 *	60.0	59.7	58.7	58.7	57.3	54.7	53.4	55.0	57.7	60.7	63.4	66.6	68.2	68.7	66.9	63.7	61.7	59.8	60.2	61.0	60.9	60.2	59.7	60.2				
28 *	60.3	59.7	58.9	58.9	57.0	54.7	53.1	54.5	56.7	61.2	64.4	68.1	70.2	70.3	67.7	64.9	62.3	60.7	60.4	61.1	60.7	60.7	60.7	60.6				
29	60.4	59.6	58.9	58.6	57.2	55.1	54.2	54.4	54.9	58.8	64.3	68.1	71.8	72.6	70.6	67.9	64.8	60.8	59.6	60.4	61.1	61.6	60.8	57.9				
30 **	60.5	59.1	61.6	56.8	58.8	65.7	61.6	64.6	62.3	63.5	64.4	65.9	67.8	68.6	66.7	64.6	63.6	62.1	60.6	60.6	61.8	60.2	56.8	53.8				
31	55.5	56.0	56.4	56.5	56.1	55.3	53.5	52.0	51.7	53.5	56.5	59.9	63.5	65.9	65.8	65.5	64.0	62.5	61.8	60.8	60.5	60.2	59.7	59.5				
Mean	60.3	60.0	60.1	59.6	58.5	57.0	55.3	55.0	55.5	57.5	60.5	64.0	66.8	68.2	67.8	66.8	65.1	62.9	61.4	60.9	60.8	60.7	60.6	60.2				
Mean *	60.6	60.1	59.5	59.2	57.6	55.9	54.4	54.7	55.8	58.8	62.0	65.7	68.0	68.8	67.7	65.8	63.4	61.3	60.5	61.0	61.0	61.1	61.0	60.9				
Mean **	59.5	59.7	61.2	59.4	59.4	59.1	56.5	57.2	58.5	59.7	62.3	65.1	67.8	69.4	68.9	68.8	67.7	65.5	61.9	59.7	59.3	57.9	58.3	59.2				
<b>August</b>																												
10° + Tabular Quantities																												
1	59.5	60.5	59.5	58.5	57.4	54.7	51.7	52.0	53.2	55.2	60.0	62.7	66.0	69.5	71.0	69.5	65.5	57.5	59.7	62.0	61.5	59.5	61.0	58.5				
2	57.0	53.5	56.5	61.2	56.5	52.0	51.7	52.2	54.5	55.7	58.0	61.5	63.5	64.0	64.5	63.8	62.0	58.5	57.0	56.3	58.2	58.5	59.3	57.5				
3 **	60.1	58.6	55.6	55.8	54.5	53.6	52.6	52.9	54.6	57.4	60.6	63.6	66.7	67.5	66.8	65.8	63.0	62.2	61.6	61.2	60.7	63.7	50.7	44.6				
4 **	53.8	58.8	57.8	55.4	55.1	55.8	57.9	52.8	58.8	62.3	61.8	66.2	68.6	70.9	71.9	71.9	66.1	64.9	63.2	60.1	59.9	61.1	57.9	57.9				
5	60.0	59.0	59.8	57.7	54.0	53.0	50.6	50.2	54.0	55.0	58.5	61.5	65.6	69.1	68.8	67.6	64.1	62.1	61.5	60.0	58.3	60.9	61.1	60.1				
6	62.7	62.2	59.2	61.2	60.0	55.0	52.5	52.2	53.2	57.0	62.2	65.2	68.2	68.7	67.2	63.7	60.5	59.6	59.7	59.1	61.0	61.7	61.3	60.4				
7	61.3	60.1	59.1	58.8	58.6	58.7	55.6	57.0	58.1	61.4	64.1	66.8	69.0	68.5	68.1	66.7	62.7	61.1	59.1	60.3	62.1	62.0	62.1	61.6				
8	61.3	61.1	60.6	60.6	59.8	57.5	56.1	55.7	56.3	59.1	64.1	66.8	68.1	67.1	64.7	62.5	59.7	58.9	59.3	59.1	60.6	61.7	61.7	61.5				
9	61.3	60.6	60.2	59.2	57.6	56.1	55.1	54.9	55.7	58.9	62.5	66.1	68.4	68.9	67.1	64.8	62.1	60.4	60.1	6								



TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER - continued

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>September</b>																										
10° + Tabular Quantities																										
1 *	59.4	58.4	58.4	58.2	57.7	57.4	56.0	54.8	55.7	56.9	59.1	62.4	65.3	67.4	66.3	63.9	62.7	61.4	61.1	61.5	60.4	60.7	60.5	59.5	59.5	59.6
2	58.5	58.3	57.6	57.3	57.7	57.3	57.2	56.8	55.6	55.6	57.1	58.8	62.2	64.7	65.3	65.2	63.9	63.2	62.3	61.7	61.3	60.3	59.5	59.6	59.3	57.3
3	59.3	58.3	57.7	57.9	58.3	59.9	58.5	56.3	55.3	58.5	61.0	64.7	67.5	66.3	65.6	63.6	60.2	58.3	59.3	60.3	60.4	60.4	58.8	57.3	58.3	57.3
4	57.4	58.2	57.9	57.2	57.0	56.0	54.2	53.2	54.6	57.2	60.2	62.6	64.6	65.1	65.1	65.0	62.9	62.1	60.7	61.0	61.0	60.1	59.7	58.3	58.3	57.3
5	58.1	54.9	56.5	58.7	57.6	56.8	54.1	53.1	53.1	56.1	61.1	64.7	67.3	69.1	66.9	65.1	62.7	60.5	59.1	60.1	59.7	59.6	59.6	59.7	59.7	59.7
6 *	59.3	59.1	59.1	59.0	58.6	57.5	55.7	55.1	55.6	57.3	60.4	63.9	65.7	66.0	65.1	63.8	62.1	60.9	61.0	60.9	60.3	60.1	60.1	59.3	59.3	59.3
7	58.8	58.4	58.1	57.6	56.5	56.3	55.9	55.1	55.1	56.5	58.5	62.5	65.5	67.2	65.2	63.7	63.1	60.2	61.1	60.7	60.2	60.1	59.5	59.2	59.2	59.2
8	57.9	56.8	56.1	54.6	55.6	56.0	55.5	54.0	55.0	57.1	60.0	63.1	65.2	65.7	63.6	63.1	61.4	60.3	60.4	60.1	58.8	60.0	60.2	60.0	60.0	60.0
9	60.0	59.6	59.4	59.0	58.5	58.0	57.0	55.7	55.7	56.0	58.8	61.4	65.6	65.6	65.2	64.6	62.2	61.4	60.5	57.6	56.7	57.6	57.1	57.2	57.2	57.2
10	57.6	57.7	57.8	57.5	58.2	57.7	57.0	55.6	55.9	57.1	59.5	65.1	65.7	65.7	64.7	62.7	60.8	60.1	60.6	60.1	58.7	57.7	58.8	58.8	58.8	58.8
11	59.5	59.7	59.9	60.9	57.4	56.0	54.5	53.3	53.8	56.4	60.9	66.3	70.3	68.9	67.7	65.2	62.9	60.3	57.5	57.3	57.7	55.9	58.6	57.3	57.3	57.3
12	58.3	58.1	60.7	59.7	57.2	56.6	57.5	57.4	55.7	56.7	59.8	63.3	65.2	66.0	65.7	63.7	62.2	61.2	59.3	57.7	56.5	57.7	57.5	56.7	56.7	56.7
13	58.9	57.7	57.7	58.8	64.7	58.8	56.7	56.2	56.0	57.5	58.6	61.4	64.6	66.7	67.6	65.7	63.7	62.2	62.7	61.7	50.1	46.8	48.9	48.6	48.6	48.6
14 **	52.6	55.4	60.7	52.0	48.3	56.0	54.7	54.7	54.7	55.8	58.7	62.2	64.6	64.9	62.5	64.7	64.9	60.2	58.6	58.8	50.0	44.7	49.1	47.7	47.7	47.7
15 **	49.5	46.8	53.7	49.3	60.7	66.5	67.7	62.1	55.2	59.3	61.7	65.4	67.6	70.6	70.6	66.4	65.4	63.5	60.1	55.6	45.6	57.1	58.9	58.6	58.6	58.6
16	57.5	59.9	57.1	52.9	54.8	55.5	54.9	54.0	54.3	55.5	57.5	60.5	62.9	64.7	64.5	63.5	63.2	61.6	61.0	58.7	59.1	59.4	58.5	56.7	56.7	56.7
17	54.9	53.6	52.4	56.0	59.4	58.4	57.4	55.9	54.9	55.9	57.7	61.2	64.3	66.1	65.7	64.3	62.3	61.4	60.5	59.5	59.3	58.5	58.6	58.3	58.3	58.3
18	58.2	58.2	58.2	57.7	57.0	56.2	55.6	55.0	54.3	55.2	57.5	60.2	63.4	65.2	64.1	64.1	62.8	60.2	59.2	59.2	59.2	59.2	58.4	57.6	57.6	57.6
19 *	58.7	57.4	58.0	57.9	57.3	57.3	57.1	56.0	55.6	58.3	58.0	61.3	63.7	65.4	65.2	63.5	61.9	60.4	60.2	59.4	59.4	59.3	58.9	59.4	59.4	59.4
20	59.5	58.1	58.5	58.6	57.9	57.6	56.7	55.3	54.5	55.4	57.5	61.5	64.7	66.5	66.3	64.4	62.5	60.7	60.0	59.5	59.1	59.3	58.9	59.4	59.4	59.4
21	59.4	59.1	58.6	58.6	57.9	57.6	56.2	55.0	54.6	55.6	58.1	60.4	63.7	65.1	64.0	63.3	62.2	60.4	60.6	60.1	59.6	57.7	52.1	53.6	53.6	53.6
22	56.2	58.0	57.4	57.4	57.4	56.7	55.6	54.2	52.7	57.5	58.8	62.7	65.2	64.7	64.1	63.9	62.5	61.0	60.2	60.1	59.6	59.1	59.1	58.9	58.9	58.9
23	58.6	57.9	56.6	55.6	56.6	54.2	54.6	53.7	53.2	54.2	56.7	60.6	64.7	66.6	66.5	65.0	63.2	61.9	61.0	60.5	59.9	59.7	57.6	58.2	58.2	58.2
24 *	58.2	57.9	58.5	58.0	57.6	57.2	56.0	54.6	54.0	55.6	58.4	63.6	66.5	67.3	66.6	64.0	62.2	61.3	60.9	60.9	60.8	59.0	59.1	58.7	58.7	58.7
25 *	58.6	58.6	58.7	58.6	58.3	57.6	55.7	53.9	54.0	55.7	60.6	65.5	68.5	69.4	68.6	66.5	64.2	62.7	62.0	61.1	60.7	60.2	57.7	67.5	67.5	67.5
26 **	58.5	56.6	58.0	57.6	57.5	57.1	56.2	53.6	53.8	58.6	63.7	67.2	68.2	68.6	66.2	67.6	64.5	64.5	57.6	53.5	50.1	52.7	55.1	52.9	52.9	52.9
27 **	53.6	56.7	57.0	56.0	57.0	57.6	55.5	55.1	56.4	57.3	59.5	62.2	65.4	66.4	66.2	64.4	62.4	60.4	60.3	58.2	55.4	57.5	56.0	47.3	47.3	47.3
28 **	48.3	39.5	41.2	44.4	57.8	57.4	56.0	54.0	54.1	56.1	57.4	59.4	62.7	64.4	62.6	61.4	61.3	61.3	59.5	59.3	57.0	57.4	58.0	58.0	58.0	58.0
29	57.9	58.4	57.9	57.4	57.3	59.4	61.8	57.3	56.9	56.1	56.9	61.0	63.4	61.8	61.7	60.2	59.4	59.7	58.3	58.4	58.0	57.7	57.8	57.9	57.9	57.9
30	58.3	58.3	58.0	57.8	57.3	57.2	55.3	54.6	53.9	55.5	58.3	61.3	65.3	64.8	67.2	62.5	62.6	61.3	58.3	49.9	55.1	52.9	52.9	49.6	49.6	49.6
Mean	57.2	56.9	57.3	56.7	57.5	57.4	56.6	55.2	54.8	56.6	59.2	62.7	65.4	66.2	65.6	64.2	62.6	61.2	60.1	59.1	57.7	57.6	57.4	56.8	56.8	56.8
Mean *	58.4	58.4	58.5	58.3	57.9	57.4	56.1	54.9	55.0	56.4	59.5	63.3	65.9	67.1	66.4	64.3	62.6	61.3	61.0	60.8	60.3	59.9	59.3	58.9	58.9	58.9
Mean **	52.1	51.0	54.1	51.9	56.3	58.7	58.0	55.9	54.8	57.4	60.2	63.3	65.7	67.0	65.6	65.3	63.7	62.0	59.2	56.7	51.6	53.9	55.0	53.0	53.0	53.0
<b>October</b>																										
10° + Tabular Quantities																										
1 **	54.3	53.1	56.1	58.8	48.3	47.8	52.3	52.3	52.9	56.2	57.7	59.3	61.3	61.7	60.9	59.7	58.5	58.1	56.9	55.9	53.7	55.3	56.8	56.6	56.6	56.6
2	55.4	54.6	57.4	58.4	58.4	56.0	55.2	53.8	53.9	55.4	58.4	60.9	63.0	63.5	61.5	61.0	58.5	54.5	55.2	58.7	59.1	58.0	58.9	53.9	53.9	53.9
3	53.7	57.1	56.4	57.1	57.6	57.1	56.6	55.3	54.4	55.9	59.4	63.2	63.3	63.4	62.4	61.5	56.4	57.9	59.4	58.2	52.6	52.5	54.2	54.8	54.8	54.8
4	57.4	58.0	56.4	55.0	56.9	56.5	56.0	54.6	54.7	57.4	61.1	64.1	64.7	64.9	65.3	63.9	62.5	60.0	57.4	58.9	59.3	58.9	58.4	57.4	57.4	57.4
5 *	58.0	57.9	58.0	57.9	57.8	57.5	56.5	54.9	53.9	54.4	57.7	61.6	64.1	63.9	63.1	61.9	61.2	60.6	59.8	59.7	59.4	58.6	58.5	58.3	58.3	58.3
6	58.5	58.5	58.5	58.5	58.5	59.0	57.7	55.1	53.9	55.5	58.5	61.5	64.5	63.7	62.2	61.2	60.5	60.5	59.7	59.5	59.1	58.7	58.9	58.4	58.4	58.4
7 **	58.0	59.1	59.0	59.2	58.6	59.3	57.8	57.3	58.4	61.5	65.1	68.0	69.1	71.5	68.4	75.5	65.0	65.0	70.5	57.5	48.0	55.2	49.3	48.7	48.7	48.7
8 **	49.2	51.8	54.3	50.0	50.1	58.0	59.5	52.0	52.5	56.5	59.8	66.1	66.0	66.0	65.8	63.0	58.7	56.5	57.6	52.4	58.5	67.5	57.5	57.1	57.1	57.1
9	60.3	60.5	58.5	58.0	58.1	57.5	56.3	55.9	55.3	58.2	61.0	62.4	63.6	64.5	64.4	60.5	57.8	56.7	58.6	57.5	55.5	52.5	55.5	56.3	56.3	56.3
10	57.0	59.5	56.6	58.0	59.4	56.8	54.7	52.5	52.0	53.9	58.9	63.5	65.6	65.5	63.3	61.5	59.5	60.1	59.7	58.5	55.9	58.4	57.5	58.0	58.0	58.0
11	59.5	58.7	56.8	56.1	58.0	56.2	57.5	57.5	55.9	58.0	63.1	66.5	68.3	68.0	65.8	63.1	62.3	60.1	59.0	58.2	58.5	58.5	58.5	58.5	58.5	58.5
12	58.2	58.0	58.0	58.2	58.1	57.5	56.4	54.5	53.6	54.5	59.0	63.5	65.5	66.0	64.3	62.4	60.3	61.1	60.7	60.1	57.5	56.0	56.7	58.1	58.1	58.1
13	58.5	58.3	58.5	58.4	58.5	57.5	56.0	54.2	52.4	54.5	58.5	62.5	65.1	66.6	66.2	64.0	62.1	61.9	61.1	59.4	57.5	56.6	56.9	57.9	57.9	57.9
14 *	58.5	59.1	58.8	58.0	58.5	58.5	57.4	54.8	53.0	53.5	56.5	60.5	63.9	65.6	65.4	63.5	61.5	61.1	60.5	59.8	59.0	58.6	58.3	57.9	57.9	57.9

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER - continued

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>November</b>																										
10° + Tabular Quantities																										
1	55.5	56.4	56.4	56.4	57.0	57.3	57.4	58.5	55.5	55.8	58.3	62.4	65.0	64.9	63.4	61.1	60.4	59.8	59.1	59.0	58.8	58.5	58.4	58.0		
2	58.1	58.2	58.3	58.1	57.9	57.7	57.5	58.7	55.4	55.0	58.0	60.6	61.4	62.3	62.9	62.0	62.0	60.4	59.4	59.0	58.2	58.0	57.5	57.5		
3 *	57.4	57.5	57.2	57.5	57.5	57.1	57.0	58.8	56.5	55.3	57.2	60.2	62.5	62.5	60.6	59.5	59.5	59.4	59.3	59.6	58.3	58.5	57.1	57.6		
4	57.4	57.3	57.4	57.4	57.3	56.5	56.4	58.3	55.3	54.9	57.1	60.8	61.3	62.3	61.9	60.4	59.9	59.8	60.1	58.9	55.7	57.0	57.6	57.6		
5	58.5	58.4	58.0	58.3	57.5	56.8	56.8	55.9	55.4	56.3	59.0	61.1	62.0	62.4	61.4	60.6	58.5	58.9	59.3	58.8	58.4	58.4	58.1	57.8		
6	57.3	57.7	57.7	57.7	57.3	56.8	56.0	55.7	55.2	55.4	57.9	61.3	63.4	63.3	62.3	61.4	60.9	60.4	59.4	59.0	58.4	58.3	57.0	57.0		
7	57.3	57.7	57.8	57.4	57.3	57.0	56.7	55.2	54.3	55.3	59.0	62.0	63.3	63.3	62.7	61.5	60.8	60.7	60.4	58.8	55.3	55.3	55.7	57.0		
8 **	57.3	58.2	57.7	60.3	58.6	56.8	58.2	57.1	57.1	58.6	61.9	65.1	67.7	67.7	68.3	67.4	65.7	61.3	60.2	57.0	54.8	52.4	49.3	48.3		
9 **	47.9	50.6	58.4	57.3	56.5	56.6	56.1	57.9	56.0	53.7	58.3	62.5	64.9	65.5	65.3	63.3	58.2	64.6	64.3	58.2	54.0	54.8	56.2	51.2		
10	48.5	52.0	56.5	56.3	56.7	57.0	56.5	56.1	56.2	56.5	58.5	60.5	61.0	61.3	60.5	60.0	59.5	59.3	58.6	58.2	57.5	56.7	56.3	56.0		
11	56.4	56.5	56.9	57.5	57.6	57.5	57.3	57.0	56.0	55.9	57.4	60.8	62.2	62.5	61.1	60.7	60.6	59.5	58.8	57.6	57.1	56.0	56.2	56.5		
12 *	56.5	57.3	58.3	58.2	57.4	57.0	56.8	56.7	56.0	58.4	58.4	60.4	61.8	61.8	60.8	60.4	60.4	59.7	59.4	58.7	57.9	57.4	57.4	57.3		
13 *	57.0	57.1	57.0	58.9	57.2	57.2	56.9	56.4	55.4	55.4	57.4	60.4	61.6	62.8	62.5	61.2	60.4	59.6	58.9	58.4	58.0	57.5	57.3	57.3		
14	57.3	57.3	58.1	58.3	57.9	57.3	56.9	56.1	55.4	55.3	57.5	59.8	61.6	62.2	62.3	64.1	65.2	69.3	70.4	62.0	57.3	54.0	57.4	50.9		
15	51.3	53.3	56.1	55.9	56.6	56.3	56.7	56.4	55.4	55.4	56.7	58.4	61.0	60.9	60.4	60.1	59.4	59.8	59.3	59.3	58.8	57.1	54.3	54.6		
16	54.8	55.3	56.9	56.3	56.4	56.4	56.6	56.3	55.7	55.7	57.4	59.3	61.3	61.2	60.7	60.4	59.8	59.3	58.6	58.2	57.6	57.4	56.9	55.1		
17 **	54.3	54.8	55.6	55.3	54.8	54.8	54.9	54.9	55.0	56.2	58.2	60.4	65.3	64.4	65.3	58.4	63.3	60.8	62.7	60.5	60.9	59.9	59.0	58.3		
18	57.8	58.2	58.3	59.3	58.7	58.6	57.8	57.3	56.9	58.3	58.8	62.8	62.7	60.5	60.9	59.9	59.0	58.3	61.4	62.2	62.3	64.1	65.2	69.3		
19	59.3	60.3	60.3	68.3	58.9	56.5	58.9	56.5	55.8	57.2	58.5	61.3	62.3	62.1	61.3	60.3	58.3	57.8	62.3	62.1	61.3	60.3	58.3	57.8		
20	58.3	58.2	57.4	57.3	57.3	57.0	57.9	56.3	55.9	57.2	59.0	60.9	62.3	63.3	61.5	60.3	60.6	60.6	59.3	57.3	57.2	56.4	56.9	57.3		
21 **	57.4	57.6	57.8	57.3	57.3	57.2	57.2	56.7	56.8	58.6	60.6	65.3	64.9	66.2	63.7	61.3	61.6	55.5	53.3	53.3	53.5	48.5	54.5	56.5		
22	57.1	56.7	56.1	56.7	56.0	56.1	56.2	60.3	57.7	58.3	55.7	60.0	61.3	60.8	61.2	60.3	58.3	57.3	61.3	60.8	61.2	60.3	58.3	57.3		
23	54.4	54.2	53.9	55.2	55.7	56.3	57.7	58.9	57.2	57.4	57.4	60.3	60.7	62.0	61.2	58.5	57.3	57.3	60.8	60.3	60.1	60.3	58.1	57.1		
24	56.5	57.6	58.8	57.3	56.8	57.0	57.3	57.8	57.2	56.3	59.3	59.3	60.8	60.3	60.1	60.3	58.1	57.1	61.4	61.4	60.4	59.4	58.9	57.4		
25	54.4	56.4	56.3	56.2	56.9	56.8	57.3	57.0	56.4	57.4	58.8	61.0	61.4	61.9	61.0	60.4	54.8	58.0	57.9	57.0	56.9	56.4	55.4	55.9		
26 **	57.2	57.5	56.9	55.5	56.5	56.5	59.4	66.5	59.1	57.5	58.5	61.8	62.5	62.5	62.8	60.5	57.5	55.5	59.9	55.5	54.5	55.1	55.8	55.9		
27	55.2	57.7	57.0	57.5	58.4	57.5	57.3	56.5	55.5	55.0	55.9	58.5	59.9	61.1	60.0	58.7	58.5	57.8	61.4	61.4	60.4	59.4	58.9	57.4		
28 *	57.0	57.0	57.4	57.9	57.6	57.6	57.3	56.3	55.9	56.2	57.8	60.0	60.4	60.4	60.4	59.4	59.0	57.4	60.4	60.4	60.4	59.4	59.0	58.9		
29	57.0	57.4	58.6	58.9	58.9	56.5	55.4	55.2	54.1	54.1	56.4	58.6	60.4	60.4	60.4	59.4	59.0	58.9	60.4	60.6	60.2	59.3	59.2	58.4		
30 *	55.0	55.4	57.5	57.4	57.3	56.7	56.4	56.2	55.4	55.3	56.3	56.7	60.4	60.6	60.2	59.3	59.2	58.4	60.4	60.6	60.2	59.3	59.2	58.4		
Mean	56.0	56.7	57.3	57.3	57.1	56.9	57.0	57.0	56.0	56.1	58.1	60.8	62.3	62.5	61.9	60.6	59.8	59.4	58.7	57.5	56.3	55.6	55.6	55.7		
Mean *	56.6	56.9	57.5	57.6	57.4	57.1	56.8	56.5	55.6	55.7	57.4	59.9	61.5	61.8	60.9	60.0	59.7	58.9	58.8	58.2	57.8	57.1	57.1	57.2		
Mean **	54.8	55.7	57.3	57.1	56.7	56.4	57.2	58.6	56.8	56.9	59.5	63.0	65.1	65.3	65.1	61.8	60.9	59.5	58.1	55.2	53.0	52.9	53.6	53.5		
<b>December</b>																										
10° + Tabular Quantities																										
1 *	56.8	57.2	57.3	57.3	57.1	56.6	56.7	56.5	56.3	56.3	57.3	58.6	59.1	59.2	59.3	59.3	58.8	58.4	58.2	58.0	57.3	56.9	56.8	56.5		
2 **	56.8	57.8	57.8	57.8	58.1	57.3	57.3	56.7	56.5	57.8	59.2	61.2	62.5	65.2	65.3	66.3	66.4	69.1	68.3	62.9	53.2	43.2	50.8	47.3		
3 **	46.1	47.5	48.3	48.6	51.3	54.6	56.2	58.7	57.6	58.3	58.6	61.1	62.7	64.9	66.8	69.3	69.3	67.8	60.9	57.9	50.3	55.3	52.7	52.9		
4	48.3	52.5	54.1	54.3	57.0	55.3	55.6	55.6	55.4	55.9	56.6	58.1	58.8	59.4	59.1	58.3	58.2	57.7	57.2	56.8	56.6	56.6	56.1	55.8		
5	56.3	56.3	55.9	54.3	54.3	53.7	55.1	55.5	55.2	55.2	57.7	61.3	62.7	63.7	61.0	60.1	60.5	58.3	57.5	56.8	56.1	55.7	55.8	55.8		
6	55.7	55.6	56.5	56.7	56.1	56.1	56.2	55.6	55.2	55.8	56.6	57.9	59.4	59.6	59.5	59.2	59.4	58.8	58.1	56.3	53.8	54.0	55.1	56.2		
7	56.2	56.5	56.5	56.7	56.1	56.3	56.2	55.6	55.2	56.0	57.0	58.0	59.6	59.6	59.6	59.2	59.4	59.2	57.2	55.3	57.3	57.1	56.8	56.8		
8 *	57.2	57.3	57.5	57.6	57.5	56.7	56.6	56.1	55.6	55.2	56.5	58.5	59.5	60.2	60.2	59.7	58.8	58.2	58.0	57.6	57.1	56.8	56.7	56.6		
9	57.1	57.4	57.6	57.7	57.7	57.6	57.4	56.8	56.4	55.4	55.1	55.5	57.4	59.2	60.0	60.7	60.4	60.1	60.2	59.3	57.7	54.7	53.2	52.9		
10 **	55.1	55.7	56.2	56.6	56.7	56.4	56.8	56.4	55.7	55.1	56.1	57.8	61.1	61.6	60.6	63.2	62.4	56.0	60.1	51.1	47.1	52.4	53.7	50.8		
11	54.8	54.5	57.1	57.7	56.7	56.7	56.2	56.0	55.9	55.4	57.0	58.1	60.1	60.1	60.2	59.6	58.1	58.1	57.1	56.9	56.2	54.9	55.8	55.5		
12	55.7	55.4	55.8	55.7	56.3	54.5	55.0	55.4	56.0	55.3	56.4	58.9	61.0	60.6	60.8	60.0	58.4	57.4	57.0	56.8	56.1	55.8	56.8	54.9		
13	54.1	54.9	55.9	55.9	55.6	55.5	55.6	56.2	56.4	56.0	56.7	58.4	59.6	60.0	60.6	59.2	59.0	59.0	60.8	55.8	55.0	55.5	55.0	54.0		
14	54.3	55.1	55.0	55.6	55.6	55.4	56.0	56.2	56.5	56.3	56.6	58.9	59.0	60.7	61.0	60.2	61.5	62.0	59.1	54.5	53.8	55.0	55.6	56.3		
15	56.1	56.5	56.4	57.2	56.0	55.1	56.4	56.8	56.1	55.4	56.7	58.0	59.0	59.6	59.5	59.4	59.0	56.2	58.8	58.5	57.0	56.5	56.3	56.2		
16 **	56.0	56.3	56.1	56.4	55.4	55.5	56.0	56.1	57.9	59.0	59.4	59.0	57.9	60.0	60.8	59.8	60.0	61.6	57.9	58.0	56.9	49.0	51.9	48		



TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued.*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>March</b>																										
18000 γ + Tabular Quantities (in γ).																										
1 **	535	523	511	505	526	535	524	519	507	495	493	501	496	508	491	498	504	509	506	527	521	509	513	524	524	524
† 2	539	534	522	519	524	521	520	519	515	519	-	-	496	508	491	498	504	509	506	527	521	509	513	524	524	524
3	529	530	538	536	525	526	530	535	531	517	510	503	501	511	516	516	519	519	525	532	529	532	534	534	534	534
4	533	532	532	529	529	531	534	534	530	525	516	514	515	518	519	521	523	526	534	528	528	524	527	534	534	534
5 **	541	527	522	523	527	536	534	536	536	526	536	520	520	519	518	497	496	504	470	474	493	487	499	518	518	518
6	511	503	516	510	520	518	522	516	497	506	510	501	503	508	508	506	508	517	501	503	512	515	504	510	510	510
7	510	517	520	516	517	525	523	527	529	525	510	506	508	515	515	521	505	503	513	519	528	527	522	520	520	520
8	519	523	519	521	529	526	523	526	526	518	509	504	501:	502	507	515	516	520	527	528	528	527	529	521	521	521
9	521	523	523	523	523	523	532	532	530	526	520	517:	515	514	520	519	523	528	532	527	525	530	513	520	520	520
10 *	525	525	526	530	531	532	536	538	535	523	510:	501:	505	502	509	518	531	536	539	544	544	540	543	541	541	541
11	541	539	539	539	539	538	540	540	537	525	523	516	514	516	520	523	521	526	527	525	533	529	533	546	546	546
12	529	520	531	529	531	551	539	535	526	515	516	510	509	512	525	508	507	526	530	536	536	533	534	537	537	537
13	535	533	534	531	529	527	529	532	532	526	519	512	510	511	520	526	531	533	533	538	539	539	541	543	543	543
14	545	541	536	539	538	539	545	533	522	509	504	511	496	514	509	519	528	533	533	533	529	538	541	541	541	541
15	541	528	530	529	533	533	536	525	516	511	494	486	491	510	512	514	523	523	523	531	536	533	535	534	534	534
16 *	533	534	534	533	532	534	535	531	518	501	492:	491:	507	516	523	524	524	529	534	540	539	542	542	541	541	541
17	540	544	554	535	532	535	539	528	513	501	494	492	500	512	522	527	525	534	536	537	537	539	539	542	542	542
18 *	544	539	538	539	539	541	542	541	530	512	501	506	512	521	527	534	540	541	542	545	545	546	544	544	544	544
19 *	542	542	543	543	542	544	544	544	529	517	507	497	497	506	517	528	536	538	540	544	544	544	543	542	542	542
20 *	541	539	541	542	544	544	544	538	526	514	507	503	505	516	526	534	539	542	544	545	547	547	544	538	538	538
21	539	538	535	537	540	542	544	538	530	520	511	511	516	522	522	528	540	545	543	549	550	546	580	556	556	556
22 **	546	530	548	549	550	550	536	531	502	479	481	465	455	481	468	484	484	502	500	503	490	489	491	489	489	489
23 **	502	484	498	502	500	500	508	490	483	420	458	466	474	487	502	509	516	522	508	508	587	498	512	479	479	479
24 **	490	464	493	475	468	476	469	446	426	433	430	451	460	472	476	489	497	508	512	512	513	506	511	503	503	503
† 25	508	512	515	510	511	511	512	512	495	486	482	-	-	-	-	-	-	-	505	520	512	515	497	491	491	491
26	501	471	484	480	487	488	486	485	483	480	484	479	487	503	508	511	500	496	492	495	505	520	516	513	513	513
27	513	534	515	515	514	518	510	498	492	485	480	481	490	500	506	510	516	520	527	529	535	528	526	526	526	526
28	523	527	522	518	526	527	527	521	507	494	493	492	494	506	514	524	528	531	531	531	529	531	534	542	542	542
† 29	530	527	527	525	525	526	523	517	503	492	483:	-	-	516	534	539	-	519:	509	507	524	525	525	525	525	525
30	525	525	525	525	526	521	522	519	507	490	483	487	502	513	522	527	528	532	534	534	536	536	534	537	537	537
31	535	536	537	537	536	536	534	526	514	500	485	491	504	522	533	540	536	541	543	545	545	543	536	532	532	532
† Mean (28 days)	528	524	527	525	527	528	529	524	515	503	499	497	500	509	513	517	519	524	524	527	531	528	529	529	529	529
Mean *	537	536	536	537	538	539	540	538	528	513	503	500	505	512	520	528	534	537	540	544	544	544	543	541	541	541
Mean **	523	506	514	511	518	518	518	504	491	471	480	481	481	493	491	495	498	509	499	504	517	498	505	503	503	503
† March 2, 25, 29 omitted when computing means.																										
<b>April</b>																										
18000 γ + Tabular Quantities (in γ).																										
1	536	536	534	534	536	535	530	520	508	501	501	506	509	514	522	535	538	541	549	540	545	543	546	546	546	546
2 *	543	545	543	543	542	541	539	530	517	506	503	510	516	527	533	538	543	545	547	551	547	542	534	536	536	536
3	537	543	548	539	541	545	544	539	529	518	506	493	497	502	512	519	526	541	537	537	545	544	544	541	541	541
4	537	543	541	549	552	545	542	535	519	492	481	480	501	510	521	536	534	534	543	546	545	536	532	532	532	532
5 *	530	531	531	534	535	537	535	526	518	506	494	493	499	509	522	535	539	540	542	545	544	544	544	545	545	545
6	541	546	543	535	550	552	552	526	490	494	500	495	496	485	495	508	523	534	541	529	538	548	548	557	557	
7	536	523	521	520	521	533	543	534	523	511	499	486	472	486	477	508	516	525	535	538	537	530	530	533	533	533
8	528	530	527	528	531	535	534	529	515	501	485	478	492	506	510	517	527	523	532	536	539	547	543	537	537	537
9	531	533	531	529	531	532	526	516	502	484	483	499	510	506	511	520	530	530	536	537	542	541	547	548	548	548
10	539	530	530	534	536	541	541	534	523	515	501	497	501	512	522	536	536	532	533	534	536	536	536	536	536	536
11	536	536	534	535	540	541	535	525	516	503	510	504	506	517	524	528	548	528	502	529	531	541	533	543	543	543
12	540	537	536	534	535	535	539	532	519	510	503	499	497	505	512	517	519	523	529	533	554	542	541	543	543	543
13 **	539	537	529	526	526	526	521	516	513	510	497	508	515	533	536	537	560	531	553	557	571	572	547	497	497	497
14 **	492	504	504</																							

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - continued

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>May</b>																										
18000 γ + Tabular Quantities (in γ).																										
1 *	542	540	537	535	535	532	527	518	509	505	501	506	524	531	534	536	540	549	553	555	549	545	540	534		
2	532	536	540	540	542	538	535	525	511	505	500	503	509	531	527	529	542	542	546	547	548	549	549	549	546	
3	542	538	538	543	540	554	544	526	514	491	479	483	482	496	509	535	542	540	529	524	522	540	538	514		
4 **	516	522	528	509	518	527	516	501	494	490	488	496	498	509	516	545	487	544	555	558	533	528	532	527	527	
5	527	532	527	531	524	525	518	509	504	499	485	486	490	496	507	538	545	543	536	522	521	527	550	539		
6	516	511	518	518	512	528	532	518	512	501	498	494	487	509	520	512	526	540	538	532	531	531	531	529		
7	527	525	525	526	527	527	523	518	509	509	503	497	500	508	516	533	545	533	531	536	532	536	534	533		
8 *	536	535	536	537	541	542	540	540	540	532	523	520	524	520	525	542	545	549	539	539	546	550	540	538		
9	535	532	533	533	533	534	535	532	528	528	529	529	530	530	530	532	541	549	552	551	552	555	549	537		
10	541	548	541	536	542	540	531	525	526	526	525	530	539	541	545	542	545	544	541	542	544	545	544	544		
† 11 **	546	553	550	559	546	546	539	533	522	521	522	535	537	544	552	566	568	645	632	637	392	337	346	284		
12 **	470	460	453	437	434	407	439	396	429	438	442	449	457	447	450	479	510	519	484	491	493	493	497	500		
13	453	482	484	488	495	495	484	475	469	467	460	461	473	484	506	507	507	509	513	513	515	517	522	521		
14 **	517	519	536	526	521	515	508	508	483	461	480	482	467	497	518	465	500	513	513	511	520	529	511	491		
15	495	500	498	506	491	504	494	477	463	481	453	469	487	487	491	517	529	548	513	513	514	522	524	515		
16	516	510	509	516	504	500	495	490	472	475	474	468	478	490	499	503	507	529	528	534	521	514	519	528		
17	541	525	521	505	516	516	490	492	489	481	484	488	504	499	505	514	534	542	558	548	535	529	527	526		
18	522	520	520	521	516	521	511	494	499	499	503	505	503	504	519	529	535	540	535	537	533	530	529	526		
19	527	529	529	530	532	530	529	520	506	496	492	495	507	518	533	534	543	540	540	538	539	532	529	528		
20 *	526	520	520	522	526	526	526	523	519	512	512	512	511	503	507	517	525	532	535	542	536	538	536	534		
21	530	535	534	532	532	535	531	523	524	520	515	507	508	516	524	534	537	539	543	543	546	545	543	544		
22	543	543	538	534	538	538	533	526	515	513	507	510	515	513	524	547	526	545	552	554	546	539	538	534		
23 *	528	531	533	535	535	537	535	528	524	524	523	516	515	520	535	543	549	557	557	555	548	546	544	546		
24	546	545	541	541	541	541	534	526	519	518	519	516	529	527	522	538	599	565	545	554	572	572	567	557		
25	560	533	530	541	545	541	536	531	524	516	514	520	520	529	529	536	548	548	552	548	548	551	534	534		
† 26 *	533	534	539	542	-	-	-	-	-	-	519	527	533	536	539	542	548	545	544	541	540	541	541	543		
27	541	541	540	541	543	536	528	523	523	528	526	525	517	519	528	538	546	564	554	554	559	559	557	552		
28	546	545	541	540	545	545	524	514	533	536	538	534	524	518	528	546	546	552	561	564	572	538	545	554		
29 **	556	550	538	546	537	537	499	476	465	473	473	490	483	501	505	538	564	514	510	515	527	534	525	536		
30	514	517	517	521	525	522	508	483	466	470	482	500	508	502	497	508	524	529	532	541	536	532	528	528		
31	526	523	524	525	524	519	507	495	492	499	500	501	507	512	516	527	536	543	552	553	547	538	530	529		
† Mean (29 days)	527	526	525	525	525	525	518	507	502	500	498	499	503	509	516	527	535	540	538	538	537	537	535	532		
† Mean * (4 days)	533	532	532	532	534	534	532	527	523	518	515	514	519	519	525	535	540	547	546	548	545	545	540	538		
† Mean ** (4 days)	515	513	514	505	503	497	491	470	466	471	471	474	478	489	497	508	513	523	518	518	518	521	516	514		
† May 11 and 26 omitted when computing means.																										
<b>June</b>																										
18000 γ + Tabular Quantities (in γ).																										
† 1 **	532	534	534	532	534	528	520	500	494	498	508	507	510	510	519	530	538	545	554	556	547	539	534	534		
2 **	534	536	-	-	-	-	532	518	511	503	492	505	508	514	530	567	566	562	555	568	554	534	522	545		
3	525	529	533	532	527	519	510	502	495	496	505	517	519	526	532	538	541	549	552	550	546	541	532	530		
4 *	530	532	536	543	541	541	534	524	512	503	502	512	519	524	532	546	556	555	555	552	549	546	545	545		
5	549	553	555	555	545	536	528	516	507	497	486	497	503	509	525	539	554	556	564	569	558	553	550	548		
6	551	553	548	544	544	543	535	526	514	507	511	518	524	530	540	518	537	550	562	562	559	554	549	546		
7	544	544	541	540	542	540	529	518	509	503	508	506	511	516	522	527	541	548	567	555	555	551	599	586		
8 **	581	578	559	570	557	572	555	536	526	504	513	520	519	496	506	518	548	568	568	591	566	563	546	540		
9	533	529	529	532	533	541	541	532	528	522	526	535	535	533	535	540	550	559	562	560	567	551	550	554		
10	545	543	540	537	541	537	533	529	524	502	504	529	534	538	553	550	558	573	575	562	553	537	533	533		
11 **	548	551	561	539	540	546	527	511	500	502	507	522	511	534	543	531	535	557	555	555	556	548	538	546		
12 **	539	542	551	537	511	504	489	478	478	470	478	500	521	528	532	531	533	544	593	573	577	565	555	561		
13 **	548	554	536	536	563	531	514	492	490	484	486	485	514	507	520	528	545	541	545	537	543	541	530	529		
14	567	554	527	523	521	514	504	500	495	500	513	525	528	526	529	529	530	531	532	533	534	535	535	533		
15 *	536	536	531	530	531	530	526	515	506	504	506	517	532	536	539	538	536	538	548	552	547	539	535	537		
16	534	532	530	531	532	532	524	515	495	506	510	523	530	528	537	532	547	548	552	551	545	549	549	532		
17	532	534	541	537	537	532	527	520	515	508	501	510	521	526	524	530	537	548	572	559	552	541	535	534		
18	534	530	531	535	537	535	532	519	504	503	508	516	517	521	523	534	539	552	555	561	560	554	550	551		
19	539	538	541	545	545	545	543	539	528	525	523	526	530	531	545	557	568	550	560	557	554	548	545	543		
20	544	543	544	547	551	551	544	534	520	507	514	514	521	529	538	546	553	558	560	559	556	555	558	556		
21	551	551	551	551	550	553	549	555	549	533	516	505	498	502	518	536	547	551	559	554	554	553	553	551		
22																										



TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>July</b>																										
18000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1	558	555	551	562	560	564	539	521	489	466	481	491	501	507	536	551	565	570	566	551	542	538	538	533	533	
2	534	539	538	538	535	535	538	518	505	498	489	495	495	500	522	541	553	559	555	551	546	544	542	540	540	
3 *	538	533	533	540	542	538	533	530	521	512	503	504	503	509	533	558	563	564	555	554	551	551	547	544	544	
4 **	543	547	544	546	549	549	535	527	516	507	500	509	546	525	496	544	556	566	582	593	545	523	525	543	543	
5	555	560	564	555	549	546	531	518	505	499	495	493	487	503	486	529	546	554	563	548	544	542	537	545	545	
6	547	550	554	544	536	535	526	527	524	510	502	497	497	497	504	530	543	557	546	543	541	536	535	532	532	
7	533	532	531	530	536	535	528	520	510	508	506	510	524	524	532	551	550	543	545	550	558	550	535	535	535	
8	537	536	534	539	541	539	530	525	524	524	512	513	499	505	519	528	543	544	545	550	548	548	543	540	540	
9	541	539	538	539	545	541	537	530	526	515	511	515	519	517	524	539	546	558	559	562	579	562	572	574	574	
10 **	559	536	550	544	543	539	524	533	528	531	521	509	499	498	490	526	551	598	592	584	553	548	542	546	546	
11	553	540	540	537	542	544	530	517	505	500	501	512	516	516	520	535	544	550	556	551	548	546	545	546	546	
12	542	541	542	541	544	544	531	514	505	508	513	514	519	531	549	567	572	562	562	560	562	558	554	549	549	
13	549	549	549	549	549	547	540	531	527	527	529	535	542	538	542	542	549	554	551	558	574	576	579	566	566	
14	544	544	548	546	531	531	525	513	491	477	494	519	527	514	544	580	557	557	549	562	553	538	534	536	536	
15 **	540	547	545	541	540	541	539	526	480	464	472	471	500	499	544	574	594	588	589	538	495	470	473	475	475	
16 **	495	484	484	504	494	487	475	451	427	418	447	478	497	489	497	529	526	547	552	555	515	519	530	512	512	
17	511	519	519	525	525	516	504	495	492	486	480	486	482	490	502	515	526	531	539	532	530	530	526	524	524	
18	523	523	524	525	529	529	521	510	502	495	489	486	494	501	521	530	543	540	550	552	547	542	538	530	530	
19	534	523	520	523	522	538	536	523	510	490	483	490	492	505	529	544	543	543	543	541	540	540	536	534	534	
20	536	537	537	541	547	549	546	532	522	519	514	513	510	510	518	529	534	551	554	553	549	548	541	536	536	
21	528	535	540	537	542	538	535	532	529	522	516	518	523	524	534	542	548	540	551	543	545	545	547	544	544	
22	539	540	539	539	542	541	534	525	520	513	510	517	519	522	529	534	548	552	531	544	544	543	544	539	539	
23	539	540	535	538	536	540	535	526	504	498	499	500	509	513	520	539	539	536	545	557	557	548	540	541	541	
24	539	540	537	539	539	535	524	513	507	509	510	520	529	534	535	540	545	552	556	557	557	552	548	550	550	
25 *	551	537	540	540	539	535	529	519	508	503	503	509	517	530	535	545	540	536	541	550	551	547	545	543	543	
26 *	543	545	540	543	540	537	532	523	515	518	518	524	532	533	532	532	540	546	553	554	547	541	540	543	543	
27 *	542	543	544	548	549	540	525	510	504	510	514	523	539	554	554	558	562	549	549	549	551	552	545	544	544	
28 *	545	545	545	545	545	538	524	514	510	510	510	521	534	539	534	539	545	546	549	554	554	551	551	547	547	
29	545	547	547	548	549	547	541	536	534	532	526	532	532	526	521	539	549	543	545	564	567	563	568	544	544	
30 **	548	559	562	559	568	524	483	466	467	466	466	460	488	483	459	479	508	521	532	553	547	536	507	506	506	
31	507	500	507	507	506	504	492	489	489	481	470	467	474	486	500	509	524	534	542	540	536	534	531	531	531	
Mean	539	536	539	540	540	536	527	517	506	501	500	504	511	514	521	536	547	551	552	553	548	543	540	538	538	
Mean *	543	541	540	543	543	538	529	519	512	511	510	516	525	533	538	546	550	548	549	552	551	548	546	544	544	
Mean **	537	535	537	539	539	528	511	501	484	477	481	485	506	499	497	530	547	564	569	561	531	519	515	516	516	
<b>August</b>																										
18000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1	539	547	542	536	539	539	531	517	529	509	491	488	502	504	521	513	527	548	531	539	557	529	535	533	533	
2	508	516	530	530	522	519	516	507	490	481	478	481	481	486	504	517	547	552	557	547	530	547	521	510	510	
3 **	521	521	511	525	533	532	519	500	490	487	486	486	486	494	500	514	534	558	558	557	557	587	622	490	490	
4 **	470	503	514	508	510	512	521	486	446	442	468	461	451	489	491	500	562	538	534	525	517	517	511	534	534	
5	510	505	515	520	508	505	507	471	471	468	459	459	460	482	524	524	528	535	552	538	534	525	520	519	519	
6	510	512	513	512	521	524	507	488	475	474	472	490	508	516	527	525	523	530	538	544	547	535	534	543	543	
7	526	525	523	525	525	534	530	504	483	479	481	494	499	500	520	539	508	530	534	543	543	542	538	538	538	
8	534	534	534	533	532	532	530	517	505	501	494	497	503	504	516	525	530	534	543	544	543	541	541	538	538	
9	545	541	537	538	537	537	532	519	508	502	503	513	524	525	530	534	539	539	543	548	544	544	543	538	538	
10	536	536	537	548	545	547	530	527	514	508	514	521	530	543	556	556	571	552	548	549	549	548	547	544	544	
11 **	558	552	541	551	564	570	556	543	516	489	455	455	478	486	490	509	506	530	547	534	532	525	505	488	488	
12	494	506	503	512	525	514	494	477	471	469	477	486	494	508	519	521	524	515	531	530	530	533	527	527	527	
13	526	525	530	532	537	527	512	504	501	493	499	510	517	522	525	526	527	534	541	538	538	537	535	535	535	
14 †	533	533	533	533	536	532	524	515	508	505	-	-	-	-	-	-	-	-	-	-	-	-	536	537	537	
15 *	529	528	529	533	535	533	527	520	510	500	504	518	532	540	543	543	540	537	542	546	542	540	535	537	537	
16 *	535	536	537	537	536	532	524	519	517	513	499	498	502	505	511	524	537	546	546	549	548	547	542	540	540	
17	539	541	544	544	545	541	533	522	510	508	506	508	511	523	518	509	528	541	545	552	549	546	541	536	536	
18 *	536	536	536	536	541	543	539	531	517	503	495	502	513	527	530	533	545	554	558	556	556	552	554	548	548	
19	549	547	548	549	550	549	547	535	521	514	516	517	518	521	528	541	538	539	536	548	550	546	542	544	544	
20 *	544	542	543	548	546	544	541	535	529	520	514	515	526	533	536	540	543	544	548	554	557	555	552	552	552	
21	551	551	550	549	546	544	537	522	511	504	502	512	526	517	536	544	562	559	549	533	533	542	536	533	533	
22 **	534	534	534	528	527	524																				

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>September</b>																										
18000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1 *	552	542	539	539	537	538		543	543	534	526	510	504	509	526	526	529	538	551	543	549	548	551	551	546	546
2	543	543	543	543	545	548		552	550	548	541	526	510	499	499	508	526	534	546	552	556	556	554	553	552	552
3	550	550	548	548	545	548		546	535	517	500	496	497	486	504	508	513	520	539	538	544	545	547	541	539	539
4	534	535	534	535	536	530		521	515	509	514	513	515	513	515	512	524	522	541	550	548	547	543	544	544	565
5	581	543	534	538	541	548		539	529	517	505	499	507	526	543	521	523	503	512	534	540	536	539	534	537	537
6 *	537	536	538	542	542	540		531	521	512	507	507	512	521	530	537	538	537	538	548	552	555	553	556	556	556
7	553	551	548	548	543	539		543	534	523	515	506	509	516	527	529	538	559	532	543	545	548	545	545	550	550
8	555	545	544	536	536	533		527	518	507	501	500	509	522	516	520	529	527	528	544	543	551	549	550	547	547
9	546	546	546	546	544	543		536	525	517	508	517	523	523	524	532	536	530	544	543	537	550	546	546	542	542
10	543	541	541	539	537	536		530	526	504	498	502	517	508	519	522	526	532	535	547	548	543	544	547	546	546
11	546	550	547	550	546	539		534	524	513	504	502	503	506	510	524	524	529	533	532	532	535	535	554	537	537
12	541	537	539	541	540	545		529	529	530	517	502	504	509	519	526	525	532	527	537	532	532	537	546	561	561
13	545	537	539	535	546	554		552	548	533	524	510	510	519	534	543	539	534	535	563	563	572	569	513	497	497
14 **	526	525	535	548	506	506		510	508	506	491	477	475	483	497	513	532	516	497	484	475	458	460	482	464	464
15 **	484	480	513	548	552	508		486	482	385	377	383	389	406	453	458	482	465	461	484	498	546	510	505	524	524
16	493	499	497	505	508	506		499	496	488	475	471	473	475	483	486	495	512	515	518	512	502	506	529	527	527
17	507	512	513	500	502	513		515	504	493	488	488	488	493	495	495	508	508	516	528	530	528	528	524	522	522
18	520	524	529	530	522	517		517	515	509	499	493	488	491	491	484	503	511	518	528	528	528	528	532	530	530
19 *	527	524	523	526	526	526		525	521	514	508	496	494	495	501	513	524	529	536	531	539	525	529	531	535	535
20	550	534	536	537	540	540		536	536	527	513	499	499	494	505	513	522	528	531	536	537	537	538	538	539	539
21	537	538	536	539	536	538		536	532	522	518	511	507	518	520	516	525	534	531	539	541	538	538	523	524	524
22	531	534	536	533	538	543		529	520	503	494	501	507	512	507	507	520	519	531	531	536	538	538	536	534	534
23	534	534	542	532	534	543		539	529	520	506	502	501	505	509	506	514	518	525	534	541	538	538	536	535	535
24 *	534	537	535	532	534	535		533	525	513	501	494	503	509	522	530	531	539	531	538	540	541	536	534	534	534
25 *	535	535	536	538	536	538		535	530	518	511	507	509	509	508	516	526	529	534	540	536	546	547	549	551	551
26 **	544	542	546	549	552	549		545	532	479	482	472	462	458	453	459	470	472	463	469	474	488	516	498	505	505
27 **	507	505	509	511	509	505		505	485	472	461	461	465	474	481	487	479	491	513	506	514	531	523	597	522	522
28 **	509	454	465	418	465	465		474	481	461	452	456	465	477	482	479	490	501	493	499	505	506	507	511	511	511
29	509	506	512	515	516	516		509	523	511	496	454	458	459	468	465	489	499	504	512	518	522	530	516	516	516
30	516	515	515	518	519	519		518	515	506	497	505	504	517	498	512	502	526	525	531	500	503	492	498	467	467
Mean	532	529	531	531	531	530		527	521	506	498	492	494	498	505	509	516	520	523	529	531	533	533	533	531	531
Mean *	537	535	534	535	535	535		533	528	518	511	503	504	509	517	524	530	532	538	540	544	543	543	544	544	544
Mean **	514	501	514	515	517	507		504	498	460	455	450	451	459	473	479	491	489	485	488	493	506	503	515	506	506
<b>October</b>																										
18000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1 **	490	510	501	532	536	479		479	492	483	474	461	457	466	482	487	496	500	505	506	519	544	520	508	505	505
2	517	503	503	503	505	523		515	505	496	488	481	476	494	503	522	506	503	530	527	514	522	534	555	534	534
3	509	510	518	509	518	512		512	501	498	494	486	497	499	506	513	519	513	520	524	518	506	495	505	512	512
4	522	527	519	523	529	519		516	510	505	492	479	482	474	502	507	514	516	521	523	531	534	534	533	531	531
5 *	527	528	528	529	529	530		527	516	505	497	493	491	503	510	512	509	511	518	525	534	534	535	536	535	535
6	536	535	534	538	545	548		547	525	509	499	504	505	513	514	517	528	525	529	527	535	536	537	539	539	539
7 **	539	539	540	545	550	548		559	524	502	497	481	483	483	485	485	502	490	479	457	415	448	444	435	433	433
8	456	471	505	487	462	530		472	460	450	422	406	377	409	441	461	472	471	499	494	512	510	503	507	507	507
9	507	509	512	512	512	513		513	497	474	466	457	478	497	500	500	487	499	511	517	518	518	545	514	523	523
10	525	534	521	514	516	520		521	505	491	477	477	481	490	499	496	507	511	512	516	513	518	546	524	527	527
11	532	542	531	530	534	543		532	530	512	490	485	486	490	501	509	507	499	503	511	518	531	529	526	527	527
12	527	528	527	528	529	533		532	522	510	492	487	490	499	512	519	524	529	534	538	538	538	547	534	536	536
13	536	534	538	538	538	538		532	521	507	490	481	483	495	509	523	532	538	544	543	536	538	544	544	543	543
14 *	541	540	542	544	545	547		547	536	518	497	489	485	493	505	519	529	538	541	543	544	545	545	543	540	540
15 *	540	542	543	544	547	547		545	536	522	510	501	493	493	507	512	521	532	536	536	538	536	536	537	537	537
16	533	538	538	536	534	540		544	536	525	517	493	484	485	495	501	505	508	501	507	503	510	510	519	513	513
17	525	523	525	526	529	530		533	529	522	507	500	509	514	507	518	521	525	532	536	542	544	545	545	545	545
18	543	540	537	536	538	543		546	541	534	521	514	514	521	527	529	532	540	541	540	534	543	550	556	545	545
19	539	529	538	536	531	532		538	536	534	526	524	521	519	519	529	527	532	540	538	543	546	547	544	549	549
20	543	534	536	536	543	534		551	543	525	514	507	504	503	516	517	517	532	536	533	543	543	536	540	538	538
21 *	533	531	532	531	532																					

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>		
<b>November</b>																											
18000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1	529	531	535	533	532	532	531	530	527	524	517	512	518	517	509	528	524	532	535	542	543	542	544	539	539	535	535
2	540	541	542	543	542	540	541	542	533	522	509	508	511	522	527	522	520	528	536	537	542	542	537	537	535	535	535
3 *	535	533	533	534	538	540	539	537	528	519	510	513	522	520	517	520	528	533	535	539	542	539	540	539	540	539	539
4	538	536	532	534	537	538	537	538	535	529	519	520	522	530	530	522	524	533	537	537	537	542	537	540	537	540	539
5	542	542	541	537	539	541	542	535	526	520	515	520	524	525	523	517	512	528	536	542	542	541	539	539	539	539	539
6	542	539	537	537	540	536	542	537	528	514	501	504	508	510	517	517	521	528	531	530	535	530	535	539	539	539	539
7	539	539	539	539	540	541	542	537	520	509	504	502	511	515	518	520	526	529	531	524	528	520	524	535	535	535	535
8 **	537	541	537	544	555	550	542	539	528	521	511	499	500	498	478	478	478	489	510	517	511	498	484	502	502	502	502
9 **	511	478	507	521	535	513	500	516	502	480	471	453	447	483	467	456	493	489	476	482	495	508	507	504	504	504	504
10	497	502	502	508	507	510	508	506	496	487	483	487	495	504	506	509	513	520	521	524	522	518	520	528	528	528	528
11	520	519	520	522	526	527	526	524	515	504	498	504	511	513	512	515	524	526	528	531	527	525	531	531	531	531	531
12 *	531	529	532	533	536	539	540	538	528	513	506	504	510	517	524	528	531	535	542	544	542	542	540	539	539	539	539
13 *	537	538	535	534	537	539	540	531	520	507	498	499	505	512	522	528	533	537	539	542	542	539	540	540	540	540	540
14	536	538	540	539	541	544	545	544	532	517	508	508	513	520	536	538	538	538	507	488	496	505	510	503	503	503	503
15	508	503	503	506	512	516	516	513	512	505	497	495	497	508	513	523	530	534	534	531	533	523	510	516	516	516	516
16	515	517	517	519	525	531	534	534	527	516	510	509	516	522	528	525	529	538	541	542	542	544	542	554	542	554	554
17 **	528	526	528	529	534	538	545	548	544	533	514	520	539	527	498	477	483	479	492	501	499	505	516	511	511	511	511
18	523	518	519	524	530	530	526	525	523	520	507	497	497	517	518	513	521	519	527	523	519	520	519	525	525	525	525
19	527	536	532	527	531	536	534	531	519	511	488	497	505	514	517	519	523	523	521	519	527	528	532	535	535	535	535
20	536	535	536	537	540	544	541	541	525	499	497	493	495	501	501	511	512	515	523	532	529	529	531	532	532	532	532
21 **	535	536	541	538	541	545	544	540	537	527	500	504	515	524	492	507	508	483	499	497	532	523	517	522	522	522	522
22	519	519	531	521	533	532	519	514	514	503	497	497	497	500	494	496	508	515	515	512	514	523	525	526	526	526	526
23	531	541	530	535	528	526	532	524	519	523	507	506	505	512	501	496	509	523	529	532	529	523	517	521	521	521	521
24	526	527	528	532	537	543	527	534	527	516	506	494	503	501	486	501	499	486	481	501	488	483	490	499	499	499	499
25	507	512	510	521	516	520	523	525	523	520	508	497	493	494	502	503	494	509	525	532	534	530	523	524	524	524	524
26 **	527	525	547	532	530	535	524	523	522	497	490	471	467	492	495	501	494	524	523	517	519	515	523	525	525	525	525
27	523	519	524	530	527	536	535	532	524	513	498	492	503	515	520	523	528	530	532	534	534	534	531	536	536	536	536
28 *	532	532	533	536	541	545	544	536	527	517	513	508	505	513	514	523	531	535	537	544	544	541	539	536	536	536	536
29	536	538	543	541	542	546	549	544	534	510	505	508	515	523	527	530	536	542	543	541	538	554	530	527	527	527	527
30 *	534	534	534	538	542	544	546	545	541	532	521	516	517	523	530	533	541	545	548	548	544	545	542	538	538	538	538
Mean	528	527	530	531	534	535	534	532	525	514	504	501	506	511	511	513	517	521	525	526	528	527	526	528	528	528	
Mean *	534	533	533	535	539	541	542	537	529	518	510	508	512	517	521	526	533	537	540	543	543	541	540	538	538	538	538
Mean **	528	521	532	533	539	536	531	533	527	512	497	489	494	499	486	483	491	493	500	503	511	510	509	513	513	513	513
<b>December</b>																											
18000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1 *	536	536	537	539	541	542	542	541	539	538	538	539	537	537	540	541	548	555	555	556	553	552	549	544	544	544	544
2 **	543	543	544	545	549	550	551	554	546	538	535	535	523	525	519	510	504	503	480	440	443	455	454	449	449	449	449
3 **	450	461	507	516	512	521	523	514	500	493	492	486	493	493	492	488	485	457	453	460	461	496	484	489	489	489	489
4	497	500	501	502	508	508	508	509	506	505	504	501	500	499	503	507	516	523	526	525	532	527	527	525	525	525	525
5	520	515	512	515	518	523	526	528	526	519	514	504	486	497	510	523	520	527	528	530	532	534	532	529	529	529	529
6	532	534	531	532	534	533	533	534	535	536	534	530	529	528	528	529	531	536	534	530	534	536	529	532	532	532	532
7	531	532	534	534	536	534	536	536	534	532	529	523	525	527	528	532	536	534	539	545	545	542	541	538	538	538	538
8 *	537	535	538	540	542	546	546	545	546	541	530	525	526	529	533	537	541	545	546	545	544	542	541	541	541	541	541
9	540	541	542	543	545	553	560	559	559	550	540	537	540	544	546	549	559	537	506	504	511	508	512	509	509	509	509
10 **	515	515	521	524	526	529	527	531	532	530	518	516	529	544	511	475	507	492	480	446	439	472	471	477	477	477	477
11	490	492	491	491	500	501	503	503	501	497	485	483	495	504	506	513	518	522	523	522	521	522	522	515	515	515	515
12	514	513	514	515	517	522	518	517	524	522	518	508	496	497	517	516	516	528	529	528	526	529	526	522	522	522	522
13	529	515	520	520	522	531	533	526	530	531	523																



TABLE III. - HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>January</b>																										
42000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1	1030	1031	1031	1032	1033	1033	1036	1038	1037	1036	1037	1035	1034	1038	1038	1037	1036	1037	1036	1038	1040	1044	1042	1042	1042	1042
2	1041	1039	1039	1038	1035	1036	1036	1035	1036	1038	1038	1040	1042	1043	1047	1050	1051	1048	1050	1050	1046	1045	1045	1046	1046	1046
3	1043	1038	1038	1038	1038	1038	1039	1041	1041	1038	1037	1038	1036	1039	1046	1050	1053	1055	1056	1052	1045	1045	1044	1043	1043	1043
4	1042	1039	1039	1036	1032	1033	1036	1037	1036	1033	1032	1031	1032	1044	1066	1064	1053	1055	1053	1052	1061	1060	1055	1049	1049	1049
5 *	1038	1037	1042	1042	1042	1041	1041	1042	1039	1036	1038	1034	1032	1033	1037	1039	1042	1044	1044	1042	1042	1040	1039	1039	1039	1039
6	1038	1036	1037	1036	1036	1037	1037	1036	1034	1031	1030	1033	1031	1031	1036	1036	1041	1052	1058	1049	1045	1042	1042	1042	1042	1042
7	1043	1038	1033	1033	1032	1034	1035	1034	1033	1033	1034	1036	1034	1035	1040	1042	1050	1050	1055	1058	1052	1050	1046	1046	1045	1045
8	1038	1038	1031	1031	1024	1027	1028	1031	1034	1039	1042	1040	1039	1042	1042	1039	1042	1042	1043	1045	1045	1046	1048	1048	1041	1041
9	1034	1034	1028	1017	1016	1019	1025	1030	1032	1033	1032	1027	1029	1033	1037	1041	1041	1042:	1041:	1041:	1040:	1039:	1037	1037	1037	1037
10 *	1034	1034	1034	1034	1034	1035	1036	1037	1037	1036	1036	1037	1034	1036	1037	1035	1037	1039	1041	1039	1039	1039	1037	1037	1036	1036
11 *	1034	1032	1032	1032	1031	1032	1036	1036	1034	1029	1027	1024	1026	1027	1031	1034	1039	1040	1040	1041	1042	1044	1043	1039	1039	1039
12	1037	1034	1033	1032	1032	1033	1033	1034	1036	1033	1032	1030	1029	1032	1037	1042	1046	1052	1074	1085	1078	1073	1066	1043	1043	1043
13	1038	1037	1033	1015	1004	1004	1022	1032	1038	1044	1050	1051	1045	1046	1049	1054	1056	1060	1080	1059	1053	1051	1047	1044	1044	1044
14 *	1041	1039	1038	1037	1037	1038	1041	1041	1040	1040	1044	1044	1042	1046	1047	1048	1046	1044	1046	1044	1044	1046	1044	1043	1043	1043
15	1041	1039	1037	1034	1035	1036	1038	1036	1036	1038	1040	1041	1038	1044	1049	1044	1042	1044	1046	1047	1046	1046	1044	1044	1043	1043
16 **	1033	1035	1036	1036	1035	1035	1034	1032	1032	1031	1035	1035	1035	1037	1046	1054	1062	1063	1058	1056	1054	1050	1046	1031	1031	1031
17 **	1040	1025	1020	1021	1040	1039	1044	1049	1050	1045	1050	1043	1055	1109	1178	1184	1211	1147	1116	1095	1086	1068	1058	1060	1060	1060
18	1064	1066	1066	1066	1063	1066	1065	1064	1065	1066	1065	1059	1061	1066	1074	1087	1089	1079	1082	1075	1079	1074	1058	1061	1061	1061
19	1055	1057	1059	1058	1057	1058	1059	1057	1053	1051	1049	1051	1054	1058	1076	1084	1099	1086	1074	1064	1059	1056	1054	1052	1052	1052
20	1052	1050	1050	1050	1050	1043	1035	1036	1037	1040	1041	1039	1045	1052	1062	1071	1066	1066	1070	1067	1071	1070	1066	1057	1057	1057
21	1050	1051	1052	1048	1033	1045	1050	1047	1047	1049	1052	1048	1047	1059	1076	1080	1083	1088	1082	1073	1071	1066	1052	1037	1037	1037
22 **	1034	1031	1016	1024	1033	1037	1040	1059	1060	1029	1090	1152	1141	1153	1158	1164	1160	1166	1133	1113	1098	1096	1086	1078	1078	1078
23	1076	1072	1070	1072	1071	1071	1073	1074	1073	1067	1062	1060	1061	1064	1067	1070	1071	1069	1071	1070	1072	1068	1067	1060	1060	1060
24	1050	1045	1046	1050	1055	1059	1062	1059	1057	1055	1055	1051	1049	1049	1059	1064	1067	1068	1069	1069	1073	1076	1074	1069	1069	1069
25 **	1062	1064	1061	1057	1054	1057	1056	1058	1056	1053	1053	1053	1047	1047	1049	1064	1081	1138	1230	1138	1031	1095	1047	1030	1030	1030
26 **	926	935	1017	1053	1088	1096	1099	1096	1093	1090	1088	1097	1096	1096	1101	1106	1088	1083	1081	1073	1073	1074	1073	1070	1070	1070
27	1068	1068	1067	1066	1065	1065	1064	1063	1064	1063	1063	1063	1062	1065	1068	1076	1074	1070	1073	1070	1068	1068	1063	1060	1060	1060
28	1059	1060	1060	1059	1056	1056	1056	1055	1056	1054	1051	1052	1051	1055	1061	1061	1060	1059	1057	1058	1059	1064	1063	1061	1061	1061
29	1057	1059	1057	1056	1054	1047	1046	1046	1045	1041	1043	1047	1047	1047	1051	1054	1054	1054	1054	1055	1057	1064	1051	1049	1049	1049
30 *	1051	1053	1051	1050	1051	1051	1049	1045	1043	1042	1045	1043	1045	1054	1056	1057	1055	1055	1056	1060	1066	1065	1063	1059	1059	1059
31	1055	1053	1052	1051	1050	1051	1050	1048	1044	1044	1047	1041	1043	1047	1053	1061	1073	1066	1065	1059	1065	1049	1055	1062	1062	1062
† Mean (28 days)	1046	1044	1043	1042	1041	1042	1043	1043	1043	1042	1043	1042	1042	1048	1056	1059	1062	1060	1060	1058	1057	1055	1052	1048	1048	1048
Mean *	1040	1039	1039	1039	1039	1039	1041	1040	1039	1037	1038	1036	1036	1039	1042	1043	1044	1044	1045	1045	1047	1047	1045	1043	1043	1043
Mean **	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
† January 22, 25, 26 omitted when computing means.																										
<b>February</b>																										
42000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1	1064	1064	1063	1061	1058	1057	1054	1053	1051	1050	1049	1049	1052	1059	1064	1064	1062	1063	1059	1057	1059	1065	1063	1062	1062	1062
2	1052	1056	1057	1051	1049	1049	1047	1045	1043	1043	1042	1040	1044	1047	1053	1051	1054	1054	1053	1063	1063	1054	1056	1056	1055	1055
3	1053	1053	1048	1047	1047	1045	1040	1037	1035	1037	1040	1043	1048	1049	1056	1062	1070	1066	1063	1061	1054	1054	1053	1049	1049	1049
4	1045	1044	1047	1049	1050	1050	1048	1048	1042	1040	1039	1040	1042	1044	1052	1060	1057	1054	1055	1057	1063	1051	1050	1048	1048	1048
5	1041	1041	1041	1040	1042	1045	1044	1044	1044	1039	1035	1037	1042	1044	1049	1052	1051	1050	1051	1054	1053	1051	1048	1048	1048	1048
6 **	1047	1048	1047	1045	1038	1026	1004	1008	1022	1029	1029	1029	1037	1042	1043	1053	1070	1069	1066	1064	1079	1075	1069	1058	1058	1058
7	1056	1053	1045	1047	1053	1054	1053	1053	1053	1051	1046	1043	1047	1048	1055	1055	1056	1057	1058	1058	1056	1053	1051	1049	1049	1049
8 **	1047	1047	1047	1046	1045	1045	1045	1045	1047	1045	1040	1039	1037	1033	1038	1044	1064	1112	1142	1117	1109	1063	1066	1066	1066	1066
9 **	1045	1046	1043	1030	1024	1020	1033	1035	1043	1045	1043	1045	1051	1058	1076	1070	1072	1077	1077	1072	1067	1061	1056	1054	1054	1054
10 **	1056	1048	1044	1023	1003	999	1006	1018	1037	1043	1041	1040	1045	1048	1051	1055	1060	1068	1057	1065	1065	1055	1054	1049	1049	1049
11	1046	1044	1028	1010	1004	1009	1005	1015	1024	1028	1035	1038	1040	1041	1052	1064	1065	1066	1066	1064	1061	1056	1055	1054	1054	1054
12	1052	1052	1052	1051	1050	1050	1047	1045	1047	1047	1045	1046	1044	1047	1050	1052	1053	1053	1052	1053	1055	1057	1055	1051	1051	1051
13	1050	1047	1042	1045	1048	1047	1046	1044	1047	1042	1033	1030	1033	1040	1048	1054	1060	1060	1056	1053	1051	1048	1046	1047	1047	1047

TABLE III. - HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - continued.

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>		
<b>March</b>																											
42000 γ + Tabular Quantities (in γ).																											
1 **	1036	1025	1030	1041	1035	1033	1031	1038	1041	1041	1039	1039	1040	1047	1064	1077	1073	1076	1070	1068	1054	1055	1055	1053	1053	1053	1053
† 2	1040	1035	1038	1045	1046	1046	1044	1043	1041	1039	-	-	-	-	-	-	-	-	-	-	-	1050	1050	1050	1044	1044	
3	1041	1043	1043	1036	1037	1039	1037	1038	1038	1038	1038	1033	1032	1039	1047	1050	1054	1051	1050	1049	1047	1046	1045	1043	1043	1043	1043
4	1043	1044	1045	1045	1045	1043	1041	1043	1045	1043	1038	1029	1028	1029	1036	1045	1049	1048	1047	1050	1052	1052	1051	1049	1049	1049	
5 **	1039	1038	1041	1044	1045	1043	1038	1036	1032	1034	1028	1027	1029	1040	1054	1071	1102	1115	1126	1106	1085	1073	1064	1064	1064	1064	1064
6	1047	1046	1028	1038	1040	1040	1038	1037	1035	1034	1031	1024	1027	1033	1039	1049	1055	1056	1080	1083	1061	1060	1060	1060	1056	1056	
7	1053	1053	1050	1051	1051	1051	1045	1043	1044	1042	1039	1037	1034	1040	1054	1063	1068	1070	1089	1064	1061	1057	1055	1054	1054	1054	
8	1052	1052	1052	1052	1049	1048	1047	1050	1047	1046	1039	1031	1027	1029	1037	1044	1051	1053	1053	1053	1053	1052	1051	1050	1050	1050	
9	1050	1050	1049	1050	1049	1049	1045	1045	1046	1042	1036	1029	1028	1035	1037	1042	1047	1050	1052	1052	1054	1054	1055	1054	1054	1054	
10 *	1051	1051	1049	1047	1046	1044	1043	1045	1043	1035	1031	1023	1022	1023	1030	1040	1044	1042	1043	1044	1045	1046	1045	1044	1044	1044	
11	1042	1042	1042	1042	1042	1041	1040	1044	1042	1032	1026	1021	1018	1021	1028	1035	1040	1043	1045	1047	1047	1046	1046	1046	1043	1043	
12	1038	1040	1041	1041	1041	1033	1029	1035	1040	1036	1030	1021	1026	1028	1037	1050	1052	1051	1047	1046	1045	1046	1045	1045	1045	1045	
13	1045	1045	1045	1043	1043	1041	1040	1041	1042	1036	1031	1029	1032	1035	1037	1042	1044	1040	1041	1042	1042	1043	1043	1043	1043	1043	
14	1038	1040	1039	1038	1034	1037	1041	1043	1041	1037	1031	1028	1028	1035	1047	1054	1054	1052	1048	1047	1048	1049	1044	1044	1044	1044	
15	1042	1042	1042	1040	1041	1041	1044	1046	1045	1043	1036	1030	1030	1037	1045	1052	1054	1054	1052	1050	1048	1047	1045	1044	1044	1044	
16 *	1044	1045	1044	1044	1044	1045	1044	1047	1044	1038	1031	1025	1024	1029	1038	1049	1049	1044	1043	1044	1044	1044	1042	1041	1041	1041	
17	1041	1042	1037	1037	1040	1042	1043	1042	1037	1030	1021	1013	1011	1019	1027	1042	1047	1047	1045	1045	1044	1042	1041	1041	1041	1041	
18 *	1040	1041	1042	1042	1042	1042	1042	1046	1044	1037	1028	1018	1018	1026	1032	1040	1043	1041	1040	1040	1039	1038	1038	1037	1037	1037	
19 *	1037	1039	1041	1042	1041	1041	1039	1040	1038	1030	1017	1012	1010	1013	1021	1032	1040	1042	1041	1040	1039	1038	1037	1037	1037	1037	
20 *	1036	1038	1039	1040	1040	1039	1040	1039	1038	1031	1022	1013	1008	1010	1019	1029	1035	1036	1035	1035	1035	1035	1036	1036	1036	1036	
21	1035	1035	1036	1036	1037	1037	1038	1039	1036	1028	1015	1008	1009	1016	1024	1031	1035	1038	1039	1039	1037	1038	1036	1028	1028	1028	
22 **	1027	1029	1028	1018	1023	1027	1021	1013	1010	1010	1009	1016	1034	1052	1063	1070	1079	1079	1077	1074	1073	1070	1064	1046	1046	1046	
23 **	1041	1044	1033	1033	1035	1031	1015	1021	1028	1025	1027	1024	1021	1024	1033	1038	1048	1058	1069	1071	1051	1036	1026	995	995	995	
24 **	997	978	982	965	986	992	989	1000	1013	1021	1031	1041	1043	1049	1050	1053	1052	1051	1049	1048	1049	1049	1050	1049	1049	1049	
25 **	1044	1043	1042	1039	1041	1041	1046	1049	1047	1038	1030	1024	1026	1029	1041	1050	1062	1059	1055	1056	1053	1041	1028	1021	1021	1021	
26	1017	989	1005	1030	1040	1045	1045	1047	1041	1030	1018	1017	1027	1041	1048	1056	1067	1076	1075	1069	1061	1054	1041	1041	1041	1041	
27	1040	1034	1028	1035	1037	1039	1041	1041	1042	1033	1025	1019	1023	1029	1035	1040	1041	1040	1041	1042	1043	1042	1042	1040	1040	1040	
28	1040	1041	1039	1040	1037	1039	1041	1043	1036	1031	1024	1018	1023	1032	1039	1043	1043	1042	1041	1042	1042	1041	1042	1039	1039	1039	
29	1036	1040	1040	1040	1040	1040	1041	1043	1039	1026	1013	1006	1008	1013	1028	1036	1047	1054	1069	1063	1053	1048	1043	1042	1042	1042	
30	1041	1043	1043	1042	1040	1040	1040	1040	1037	1028	1022	1022	1023	1031	1040	1044	1043	1040	1039	1040	1041	1040	1040	1039	1039	1039	
31	1039	1041	1042	1041	1040	1041	1043	1043	1036	1027	1015	1007	1006	1013	1027	1036	1037	1037	1036	1036	1038	1039	1038	1039	1038	1039	
† Mean (30 days)	1039	1038	1037	1038	1039	1039	1038	1039	1038	1033	1027	1023	1024	1030	1039	1047	1052	1053	1053	1052	1049	1047	1045	1042	1042	1042	
Mean *	1042	1043	1043	1043	1043	1042	1042	1043	1041	1034	1026	1018	1016	1020	1028	1038	1042	1041	1040	1041	1040	1040	1040	1039	1039	1039	
Mean **	1028	1022	1023	1020	1025	1025	1019	1022	1025	1026	1027	1029	1033	1042	1053	1062	1071	1075	1078	1073	1062	1057	1052	1039	1039	1039	
† March 2 omitted when computing means.																											
<b>April</b>																											
42000 γ + Tabular Quantities (in γ)																											
1	1038	1040	1042	1042	1041	1041	1042	1041	1034	1023	1013	1007	1008	1011	1027	1036	1039	1036	1037	1037	1039	1039	1039	1039	1036	1036	
2 *	1036	1039	1039	1039	1038	1038	1040	1042	1036	1022	1007	1001	1002	1011	1022	1033	1036	1036	1034	1035	1035	1035	1036	1036	1035	1035	
3	1035	1037	1033	1034	1035	1036	1039	1037	1030	1019	1008	996	993	1004	1020	1029	1039	1045	1045	1042	1039	1038	1035	1035	1035	1035	
4	1036	1036	1034	1032	1029	1029	1035	1034	1031	1020	1009	1005	1010	1021	1035	1042	1046	1046	1043	1041	1041	1038	1036	1036	1036	1036	
5 *	1034	1035	1036	1036	1036	1036	1039	1038	1032	1019	1008	1008	1012	1021	1032	1037	1038	1039	1036	1036	1036	1035	1034	1033	1033	1033	
6	1032	1033	1029	1029	1027	1026	1027	1028	1028	1027	1021	1015	1015	1021	1033	1040	1044	1045	1044	1048	1048	1044	1043	1033	1033	1033	
7	1026	1022	1022	1021	1022	1020	1035	1036	1037	1032	1025	1013	1016	1024	1034	1046	1052	1053	1049	1046	1046	1046	1045	1043	1043	1043	
8	1041	1040	1040	1040	1041	1043	1042	1039	1032	1022	1015	1005	1008	1015	1024	1032	1041	1046	1046	1045	1043	1041	1035	1035	1035	1035	
9	1036	1038	1038	1038	1038	1041	1043	1042	1036	1028	1018	1006	1007	1025	1030	103											

TABLE III. - HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>May</b>																										
42000 γ + Tabular Quantities (in γ).																										
1 *	1044	1044	1045	1046	1049	1048	1046	1044	1034	1016	1012	1009	1005	1014	1024	1030	1034	1040	1041	1040	1040	1041	1041	1041	1042	
2	1045	1045	1045	1044	1043	1041	1040	1038	1034	1025	1014	1007	1013	1027	1039	1039	1045	1049	1047	1044	1041	1041	1041	1041	1039	
3	1040	1041	1043	1045	1044	1034	1026	1025	1025	1020	1019	1014	1015	1031	1041	1052	1065	1079	1088	1082	1089	1080	1042	1037		
4 **	1032	1027	1015	1015	1018	1021	1032	1034	1031	1028	1026	1020	1021	1034	1057	1090	1089	1086	1078	1071	1071	1082	1051	1048		
5	1051	1052	1046	1029	1035	1046	1053	1053	1046	1034	1024	1021	1022	1029	1037	1051	1070	1081	1086	1081	1070	1081	1051	1029		
6	1031	1039	1044	1045	1047	1047	1045	1045	1040	1031	1024	1016	1020	1031	1040	1045	1051	1054	1051	1050	1050	1049	1048	1048		
7	1048	1049	1049	1049	1050	1050	1049	1047	1044	1037	1029	1025	1025	1029	1039	1051	1081	1058	1053	1060	1049	1047	1045	1045		
8 *	1046	1046	1046	1046	1048	1047	1045	1042	1037	1031	1024	1019	1017	1024	1032	1038	1039	1045	1048	1046	1046	1045	1043	1043		
9	1044	1044	1044	1045	1047	1048	1044	1037	1032	1027	1016	1013	1013	1016	1026	1034	1038	1041	1044	1044	1043	1042	1042	1040		
10	1039	1038	1030	1037	1042	1043	1039	1036	1033	1029	1017	1007	1009	1016	1027	1035	1041	1043	1044	1044	1043	1041	1041	1041		
11 **	1042	1039	1036	1032	1033	1038	1040	1040	1035	1032	1029	1023	1020	1030	1039	1049	1050	1096	1090	1104	1066	983	972	891		
12 **	966	1050	1073	1075	1063	1034	994	990	1000	1029	1044	1054	1063	1080	1100	1113	1125	1128	1103	1096	1082	1070	1080	1035		
13	997	1040	1056	1062	1066	1089	1069	1067	1066	1058	1046	1044	1048	1059	1071	1073	1072	1070	1085	1060	1060	1080	1056	1051		
14 **	1051	1050	1041	1036	1046	1048	1047	1043	1038	1030	1014	1017	1042	1060	1086	1082	1077	1073	1072	1069	1065	1063	1041	1022		
15	1002	1005	1023	1026	1024	1024	1041	1043	1042	1043	1046	1045	1048	1054	1062	1070	1077	1083	1068	1061	1057	1056	1055	1054		
16	1053	1055	1057	1053	1045	1041	1044	1048	1053	1059	1058	1056	1053	1059	1072	1079	1079	1077	1074	1072	1064	1080	1058	1055		
17	1047	1032	1028	1031	1035	1042	1047	1047	1047	1042	1036	1036	1036	1037	1046	1055	1061	1065	1065	1066	1058	1053	1048	1046		
18	1049	1050	1051	1051	1049	1049	1047	1046	1046	1043	1038	1032	1025	1033	1043	1051	1060	1062	1061	1059	1056	1054	1051	1050		
19	1052	1053	1053	1054	1057	1057	1055	1051	1046	1042	1028	1024	1026	1033	1048	1056	1063	1061	1060	1057	1057	1053	1052	1050		
20 *	1051	1051	1053	1053	1056	1057	1054	1050	1044	1039	1035	1025	1024	1028	1033	1041	1049	1051	1053	1053	1053	1051	1050	1046	1046	
21	1047	1049	1047	1047	1050	1051	1049	1050	1047	1035	1026	1022	1023	1028	1037	1045	1049	1053	1053	1051	1050	1047	1047	1046		
22	1046	1046	1046	1049	1049	1049	1045	1042	1040	1032	1023	1021	1022	1026	1037	1046	1046	1051	1051	1051	1049	1047	1046	1047		
23 *	1047	1049	1048	1049	1051	1051	1047	1039	1033	1029	1025	1021	1022	1025	1031	1037	1046	1047	1047	1049	1046	1045	1046	1045		
24	1047	1046	1046	1047	1050	1050	1042	1039	1034	1026	1015	1013	1014	1019	1029	1039	1057	1065	1063	1056	1051	1049	1041	1033		
25	1034	1039	1046	1049	1046	1044	1034	1029	1025	1015	1006	1008	1013	1021	1034	1041	1042	1044	1046	1046	1046	1046	1046	1046		
26 *	1047	1047	1046	1046	1046	1044	1037	1033	1032	1029	1021	1017	1020	1022	1032	1039	1041	1041	1045	1046	1046	1046	1046	1046		
27	1047	1047	1048	1047	1047	1046	1044	1044	1043	1040	1029	1020	1015	1015	1019	1031	1039	1043	1051	1056	1053	1049	1046	1044		
28	1044	1044	1046	1046	1049	1046	1041	1039	1032	1024	1012	1008	1010	1021	1034	1041	1042	1044	1046	1044	1046	1045	1047	1046		
29 **	1044	1039	1033	1031	1027	1023	1025	1027	1027	1021	1021	1030	1045	1066	1086	1108	1116	1113	1083	1077	1064	1058	1055	1046		
30	1042	1050	1053	1053	1057	1061	1058	1058	1046	1039	1039	1035	1039	1046	1056	1064	1070	1070	1070	1068	1065	1058	1053	1051		
31	1051	1050	1050	1049	1050	1050	1051	1051	1050	1044	1038	1032	1026	1027	1035	1041	1050	1054	1060	1064	1058	1053	1051	1050		
Mean	1040	1044	1045	1045	1046	1045	1043	1041	1038	1033	1027	1024	1026	1034	1045	1054	1060	1064	1062	1060	1055	1049	1046	1039		
Mean *	1047	1047	1048	1048	1050	1049	1046	1042	1036	1029	1023	1018	1018	1023	1030	1037	1042	1045	1047	1047	1046	1045	1045	1044		
Mean **	1027	1041	1040	1038	1037	1033	1028	1027	1026	1026	1027	1029	1038	1054	1074	1088	1092	1099	1087	1083	1070	1047	1036	1008		
<b>June</b>																										
42000 γ + Tabular Quantities (in γ)																										
† 1	1050	1048	1048	1051	1054	1053	1053	1050	1045	1041	1033	1026	1023	1021	1034	1043	1047	1049	1051	1057	1055	1051	1049	1046		
2 **	1048	1049	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
3	1023	1035	1043	1050	1056	1058	1053	1046	1043	1038	1029	1025	1024	1032	1040	1050	1052	1054	1055	1055	1055	1053	1050	1049		
4 *	1045	1046	1048	1045	1046	1046	1045	1041	1038	1029	1019	1015	1018	1022	1033	1047	1054	1056	1058	1052	1051	1048	1046	1047		
5	1046	1046	1038	1033	1033	1038	1037	1039	1035	1032	1030	1027	1027	1030	1037	1042	1046	1050	1053	1053	1049	1047	1046	1045		
6	1045	1040	1039	1043	1047	1047	1045	1044	1039	1031	1027	1021	1022	1024	1036	1043	1052	1056	1058	1056	1057	1052	1049	1046		
7	1045	1047	1046	1048	1051	1052	1052	1044	1039	1033	1028	1023	1026	1027	1031	1038	1045	1052	1053	1050	1047	1046	1044	1040		
8 **	1040	1040	1041	1045	1041	1029	1028	1031	1035	1028	1026	1025	1029	1034	1041	1048	1054	1061	1065	1070	1063	1056	1053	1052		
9	1051	1050	1050	1053	1056	1058	1052	1047	1042	1041	1034	1025	1026	1029	1038	1041	1046	1044	1045	1046	1045	1045	1044	1045		
10	1043	1044	1043	1046	1046	1049	1043	1034	1027	1023	1022	1026	1034	1042	1050	1059	1072	1082	1082	1078	1070	1059	1055	1052		
11 **	1046	1038	1027	1020	1021	1021	1021	1021	1016	1016	1019	1019	1023	1032	1046	1053	1061	1065	1069	1064	1055	1049	1045	1044		
12 **	1027	1029	1028	1020	1021	1022	1023	1034	1035	1033	1032	1036	1041	1039	1044	1053	1057	1057	1058	1053	1049	1046	1045	1044		
13 **	1044	1039	1032	1025	1020	1013	1015	1016	1014	1010	1016	1022	1037	1049	1058	1061	1065	1065	1062	1058	1056	1051	1051	1050		
14	1039	1032	1039	1047	1051	1051	1047	1043	1044	1039	1032	1023	1018	1020	1029	1041	1045	1047	1045	1046	1047	1045	1045	1045		
15 *	1045	1042	1041	1045	1046	1051	1046	1051	1046	1040	1031	1022	1022	1028	1037	1044	1046	1046	1049	1046	1046	1045	1044	1043		
16	1041	1041	1043	1045	1046	1047	1043	1036	1026	1016	1012	1008	1009	1014	1026	1039	1051	1053	1055	1053	1050	1046	1040	1039		
17	1039	1041	1038	1039	1041	1044	1042	1039	1033	1031	1024	1020	1016	1017	1024	1035	1040	1045								

TABLE III. - HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>		
<b>July</b>																											
42000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1	1040	1039	1039	1038	1036	1028	1028	1022	1020	1021	1017	1018	1019	1034	1048	1062	1067	1075	1068	1068	1066	1056	1045	1024			
2	1034	1041	1042	1045	1048	1040	1030	1024	1029	1025	1021	1024	1025	1027	1033	1044	1053	1059	1062	1055	1050	1048	1044	1043			
3 *	1043	1044	1045	1047	1048	1048	1044	1045	1043	1039	1036	1025	1021	1021	1027	1037	1045	1052	1058	1054	1050	1045	1042	1040			
4 **	1041	1042	1042	1042	1042	1038	1038	1035	1032	1031	1028	1025	1025	1029	1039	1058	1065	1072	1079	1086	1078	1056	1054	1053			
5	1050	1048	1045	1045	1045	1044	1049	1047	1044	1041	1034	1027	1025	1034	1039	1054	1060	1066	1062	1054	1051	1048	1046	1045			
6	1045	1043	1042	1044	1050	1046	1042	1036	1034	1037	1040	1038	1043	1051	1061	1067	1071	1077	1078	1071	1063	1059	1058	1056			
7	1058	1055	1056	1057	1059	1059	1055	1055	1051	1043	1043	1033	1031	1037	1050	1056	1058	1064	1065	1061	1062	1057	1054	1053			
8	1055	1055	1053	1054	1052	1053	1055	1055	1055	1053	1049	1045	1047	1051	1057	1061	1062	1068	1068	1070	1064	1060	1058	1055			
9	1056	1056	1056	1057	1061	1062	1060	1050	1048	1045	1041	1032	1032	1037	1047	1059	1061	1067	1067	1065	1058	1053	1050	1043			
10 **	1032	1034	1035	1038	1049	1044	1043	1044	1042	1035	1036	1032	1029	1036	1044	1056	1057	1072	1067	1068	1075	1068	1060	1058			
11	1050	1043	1049	1051	1056	1055	1057	1060	1058	1055	1050	1038	1035	1039	1046	1055	1059	1061	1061	1056	1055	1051	1050	1049			
12	1050	1051	1051	1051	1051	1050	1049	1044	1039	1031	1029	1024	1028	1039	1047	1049	1051	1056	1054	1051	1049	1045	1044	1047			
13	1047	1048	1049	1050	1051	1049	1048	1045	1039	1033	1023	1015	1019	1021	1032	1039	1045	1049	1050	1051	1049	1044	1043	1039			
14	1042	1036	1018	1023	1024	1033	1039	1041	1034	1031	1032	1026	1030	1038	1050	1055	1058	1063	1067	1068	1066	1060	1058	1052			
15 **	1050	1046	1043	1043	1047	1052	1050	1045	1041	1033	1030	1031	1039	1045	1090	1120	1163	1149	1140	1104	1090	1073	1054	1024			
16 **	1030	1025	1040	1062	1070	1070	1071	1063	1053	1051	1056	1058	1058	1055	1060	1073	1081	1085	1088	1082	1077	1070	1063	1054			
17	1059	1061	1059	1059	1060	1066	1061	1063	1062	1055	1050	1043	1036	1037	1047	1060	1065	1069	1076	1073	1067	1062	1059	1057			
18	1058	1058	1059	1059	1061	1063	1064	1060	1058	1056	1042	1033	1036	1039	1052	1059	1063	1066	1065	1065	1063	1057	1054	1052			
19	1052	1047	1053	1056	1057	1056	1060	1058	1054	1053	1050	1046	1043	1043	1050	1060	1062	1065	1066	1061	1058	1057	1052	1051			
20	1054	1055	1055	1055	1053	1050	1055	1056	1056	1050	1042	1038	1043	1045	1055	1065	1065	1072	1071	1069	1067	1062	1056	1052			
21	1051	1051	1048	1050	1055	1052	1055	1052	1050	1048	1047	1040	1036	1040	1052	1064	1074	1079	1079	1072	1068	1062	1057	1053			
22	1052	1052	1052	1055	1057	1056	1058	1055	1052	1047	1042	1036	1036	1043	1055	1060	1064	1072	1068	1064	1062	1057	1053	1052			
23	1052	1050	1050	1050	1052	1050	1050	1050	1050	1043	1037	1033	1039	1041	1048	1057	1062	1067	1069	1065	1060	1056	1053	1052			
24	1052	1061	1050	1052	1055	1054	1046	1046	1040	1031	1026	1025	1028	1036	1045	1056	1062	1066	1066	1061	1055	1051	1050	1050			
25 *	1049	1048	1048	1051	1055	1053	1050	1050	1045	1038	1030	1028	1026	1033	1048	1055	1057	1060	1056	1052	1051	1048	1048	1048			
26 *	1050	1050	1051	1051	1054	1055	1051	1047	1041	1039	1033	1032	1032	1038	1050	1057	1067	1072	1068	1062	1058	1055	1052	1051			
27 *	1052	1052	1052	1052	1055	1049	1045	1045	1040	1033	1001	1026	1032	1039	1052	1060	1063	1061	1057	1051	1050	1047	1045	1045			
28 *	1048	1048	1048	1050	1052	1051	1048	1045	1037	1029	1026	1023	1030	1036	1049	1054	1055	1054	1051	1049	1048	1044	1043	1043			
29	1045	1046	1047	1048	1051	1051	1048	1041	1035	1024	1013	1005	1008	1020	1028	1044	1059	1064	1061	1057	1051	1047	1044	1039			
30 **	1044	1039	1032	1028	1036	1025	1024	1015	1016	1022	1037	1041	1045	1053	1065	1079	1080	1077	1076	1077	1074	1063	1051	1052			
31	1052	1056	1060	1064	1066	1066	1065	1062	1059	1055	1052	1047	1042	1042	1049	1057	1062	1069	1069	1065	1062	1058	1054	1054			
Mean	1048	1047	1047	1049	1052	1051	1050	1047	1044	1040	1036	1032	1033	1038	1049	1059	1065	1069	1069	1065	1061	1056	1051	1048			
Mean *	1048	1048	1049	1050	1053	1051	1048	1046	1041	1036	1031	1027	1028	1033	1045	1053	1057	1060	1058	1054	1051	1048	1046	1045			
Mean **	1039	1037	1038	1043	1049	1046	1045	1040	1037	1034	1037	1037	1039	1044	1060	1077	1087	1091	1094	1087	1079	1066	1056	1048			
<b>August</b>																											
42000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																											
1	1055	1052	1050	1052	1054	1060	1062	1059	1050	1040	1042	1036	1036	1038	1052	1061	1062	1105	1090	1070	1069	1068	1054	1035			
2	1027	1030	1027	1008	992	1032	1054	1056	1059	1059	1059	1049	1052	1055	1062	1070	1065	1098	1103	1093	1081	1062	1052	1050			
3 **	1047	1033	1042	1051	1058	1062	1063	1060	1053	1045	1038	1036	1035	1039	1047	1054	1060	1066	1068	1068	1067	1057	1011	978			
4 **	990	1014	1036	1050	1059	1063	1058	1048	1048	1055	1047	1045	1052	1074	1083	1087	1105	1100	1088	1087	1081	1072	1067	1054			
5	1026	1042	1040	1022	1024	1033	1038	1044	1050	1046	1042	1045	1046	1047	1073	1083	1095	1101	1093	1081	1073	1064	1060	1057			
6	1050	1047	1052	1054	1050	1057	1059	1060	1054	1047	1047	1042	1039	1045	1056	1068	1068	1072	1070	1068	1065	1060	1057	1050			
7	1048	1049	1052	1053	1052	1055	1054	1053	1052	1048	1042	1038	1040	1041	1052	1069	1069	1077	1076	1068	1059	1056	1056	1054			
8	1056	1056	1054	1057	1057	1056	1057	1052	1047	1040	1034	1024	1032	1040	1052	1059	1063	1062	1061	1059	1059	1056	1053	1053			
9	1052	1052	1052	1052	1054	1054	1055	1054	1054	1047	1038	1032	1030	1035	1045	1052	1057	1056	1051	1051	1053	1051	1050	1050			
10	1052	1052	1053	1053	1053	1054	1053	1050	1045	10																	



TABLE III. - HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>	
<b>September</b>																										
42000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1 *	1046	1043	1047	1048	1051	1051	1050	1047	1045	1041	1031	1025	1024	1035	1040	1046	1048	1055	1054	1053	1053	1051	1048	1047		
2	1048	1048	1048	1048	1048	1051	1054	1055	1051	1044	1041	1034	1024	1027	1031	1040	1048	1051	1051	1051	1051	1050	1049	1048		
3	1048	1047	1046	1046	1048	1050	1049	1048	1045	1039	1036	1035	1039	1050	1059	1064	1067	1070	1064	1059	1058	1053	1052	1048		
4	1051	1051	1051	1051	1052	1053	1053	1053	1046	1039	1033	1033	1034	1037	1047	1058	1053	1057	1080	1059	1058	1055	1054	1048		
5	1040	1040	1043	1044	1043	1048	1051	1051	1049	1043	1034	1027	1029	1036	1042	1055	1054	1057	1058	1055	1053	1053	1051	1051		
6 *	1052	1051	1052	1051	1051	1053	1054	1050	1046	1041	1037	1037	1038	1045	1050	1047	1046	1046	1046	1047	1047	1047	1047	1047	1046	
7	1048	1048	1047	1047	1047	1049	1047	1045	1044	1034	1027	1029	1030	1036	1042	1048	1055	1048	1045	1047	1048	1047	1047	1047	1047	
8	1045	1041	1039	1039	1042	1045	1048	1046	1046	1041	1033	1029	1030	1036	1044	1050	1052	1052	1051	1050	1049	1045	1044	1044		
9	1045	1046	1045	1045	1045	1045	1048	1047	1040	1034	1020	1017	1016	1019	1026	1037	1043	1047	1045	1050	1048	1044	1040	1040		
10	1041	1041	1040	1041	1043	1045	1046	1045	1039	1034	1030	1028	1033	1043	1050	1055	1057	1050	1048	1046	1046	1045	1043	1042		
11	1041	1041	1039	1037	1035	1039	1042	1038	1032	1026	1026	1021	1022	1033	1043	1048	1051	1052	1055	1055	1052	1046	1038	1036		
12	1038	1039	1040	1037	1040	1042	1043	1042	1038	1032	1025	1024	1027	1037	1046	1051	1056	1055	1054	1052	1053	1050	1045	1038		
13	1033	1037	1040	1041	1037	1032	1039	1040	1040	1039	1039	1035	1030	1032	1040	1048	1051	1052	1051	1051	1054	1037	1022	1027		
14 **	1029	1037	1041	1001	1024	1044	1051	1052	1051	1047	1046	1047	1051	1058	1069	1078	1099	1123	1111	1098	1080	1069	1052	1035		
15 **	1012	1015	983	967	977	974	992	1004	1021	1041	1058	1072	1094	1128	1149	1174	1180	1114	1105	1103	1073	1052	1049	1041		
16	1038	1032	1027	1039	1047	1052	1060	1064	1061	1053	1048	1040	1040	1044	1051	1052	1057	1062	1084	1072	1074	1070	1058	1046		
17	1046	1046	1048	1048	1045	1050	1056	1058	1057	1054	1048	1043	1042	1045	1052	1061	1062	1062	1080	1060	1057	1067	1055	1054		
18	1054	1052	1049	1044	1045	1050	1053	1056	1054	1050	1040	1036	1030	1027	1031	1040	1047	1052	1055	1055	1055	1052	1052	1050		
19 *	1051	1050	1051	1051	1051	1052	1052	1053	1051	1046	1041	1035	1032	1033	1037	1041	1045	1049	1051	1053	1053	1054	1052	1051		
20	1048	1045	1047	1047	1047	1047	1049	1047	1045	1041	1038	1030	1023	1023	1029	1035	1042	1047	1050	1050	1051	1050	1050	1050		
21	1050	1050	1049	1048	1049	1050	1053	1051	1050	1046	1041	1038	1037	1039	1041	1045	1049	1054	1052	1054	1055	1056	1055	1055		
22	1053	1052	1051	1051	1051	1048	1048	1046	1045	1040	1040	1037	1035	1035	1042	1046	1049	1054	1054	1054	1053	1052	1051	1051		
23	1053	1053	1050	1048	1050	1049	1051	1049	1050	1047	1038	1028	1028	1029	1035	1041	1044	1049	1050	1051	1051	1051	1052	1052		
24 *	1052	1052	1052	1052	1051	1051	1053	1052	1048	1041	1032	1030	1032	1037	1042	1052	1053	1053	1054	1054	1053	1052	1052	1052		
25 *	1051	1052	1052	1051	1051	1050	1050	1050	1043	1033	1026	1024	1026	1030	1040	1046	1051	1052	1054	1056	1054	1053	1049	1046		
26 **	1043	1045	1042	1042	1042	1043	1048	1048	1039	1033	1030	1041	1046	1064	1075	1086	1100	1107	1111	1106	1095	1085	1055	1038		
27 **	1046	1053	1053	1053	1055	1060	1065	1062	1053	1048	1047	1043	1044	1054	1072	1081	1083	1086	1083	1080	1072	1067	1055	1013		
28 **	1018	975	936	953	1012	1035	1060	1066	1066	1060	1059	1057	1057	1064	1068	1075	1079	1075	1073	1072	1069	1067	1065	1061		
29	1060	1060	1060	1060	1060	1061	1059	1059	1056	1052	1048	1053	1055	1062	1068	1077	1080	1078	1075	1071	1068	1063	1058	1056		
30	1058	1059	1059	1059	1059	1060	1060	1059	1056	1051	1042	1040	1044	1046	1064	1064	1065	1060	1066	1064	1068	1062	1061	1044		
Mean	1045	1043	1041	1040	1043	1046	1050	1049	1047	1043	1038	1036	1036	1043	1051	1058	1062	1062	1062	1062	1058	1054	1049	1045		
Mean *	1050	1050	1051	1051	1051	1051	1052	1050	1047	1040	1033	1030	1030	1036	1042	1046	1049	1051	1052	1053	1052	1051	1050	1048		
Mean **	1030	1025	1011	1003	1022	1031	1043	1046	1046	1046	1048	1052	1058	1074	1087	1099	1104	1101	1097	1092	1078	1064	1051	1038		
<b>October</b>																										
42000 $\gamma$ + Tabular Quantities (in $\gamma$ ).																										
1 **	1025	1036	1044	1011	977	987	1031	1042	1048	1053	1057	1060	1059	1061	1065	1072	1071	1071	1069	1068	1061	1054	1047	1035		
2	1042	1043	1048	1045	1044	1043	1049	1053	1053	1048	1045	1048	1052	1054	1064	1067	1070	1071	1066	1063	1061	1059	1049	1041		
3	1043	1046	1044	1048	1049	1051	1055	1056	1054	1050	1046	1044	1044	1049	1054	1061	1070	1075	1076	1075	1073	1071	1056	1056		
4	1052	1049	1051	1053	1053	1053	1060	1062	1060	1054	1046	1040	1043	1053	1057	1060	1063	1063	1067	1067	1065	1064	1062	1060		
5 *	1059	1059	1059	1058	1058	1059	1060	1063	1062	1054	1043	1037	1040	1045	1051	1057	1062	1060	1062	1060	1061	1060	1059	1058		
6	1057	1057	1057	1056	1054	1056	1058	1061	1059	1052	1042	1039	1047	1053	1055	1060	1058	1059	1061	1062	1059	1058	1057	1057		
7 **	1057	1056	1055	1055	1052	1052	1054	1054	1054	1052	1048	1051	1071	1098	1147	1179	1216	1179	1214	1197	1137	1114	1104	1086		
8 **	1081	1068	1053	1053	1036	1012	1014	1035	1057	1062	1068	1069	1076	1078	1083	1088	1098	1096	1085	1083	1073	1072	1070	1069		
9	1066	1063	1063	1066	1067	1069	1071	1074	1071	1071	1066	1066	1067	1069	1078	1083	1086	1078	1073	1072	1072	1069	1068	1062		
10	1059	1052	1054	1056	1056	1062	1068	1073	1070	1060	1055	1058	1062	1067	1079	1085	1080	1076	1076	1075	1075	1062	1069	1061		
11	1059	1052	1053	1056	1057	1056	1060	1061	1061	1052	1048	1050	1062	1064	1076	1087	1085	1083	1082	1079	1072	1068	1064	1062		
12	1062	1063	1063	1063	1063	1064	1064	1063	1062	1057	1053	1052	1057	1062	1067	1071	1069	1065	1063	1063	1062	1060	1057	1056		
13	1057	1057	1057	1057	1058	1059	1062	1064	1061	1054	1051	1052	1055	1055	1058	1061	1062	1061	1062	1061	1063	1061	1056	1052		
14 *	1053	1055	1055	1056	1056	1057	1058	1062	1061	1053	1046	1041	1040	1043	1051	1056	1060	1059	1059	1059	1058	1057	1055	1053		
15 *	1053	1052	1053	1053	1053	1055	1055	1058	1058	1050	1041	1039	1041	1044	1049	1056	1062	1062	1063	1064	1063	1062	1060	1056		
16	1052	1052	1046	1048	1051	1052	1055	1055	1055	1046	1039	1034	1033	1041	1057	1065	1074	1072	1076	1061						

TABLE III. - HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC INTENSITY AT ABINGER - *continued*

U.T.	0 <sup>h</sup>	1 <sup>h</sup>	2 <sup>h</sup>	3 <sup>h</sup>	4 <sup>h</sup>	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	12 <sup>h</sup>	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>	21 <sup>h</sup>	22 <sup>h</sup>	23 <sup>h</sup>	24 <sup>h</sup>		
<b>November</b>																											
42000 γ + Tabular Quantities (in γ).																											
1	1058	1058	1056	1055	1056	1058	1057	1058	1057	1056	1049	1050	1053	1056	1057	1057	1056	1056	1057	1056	1055	1055	1055	1055	1055	1052	1052
2	1052	1052	1052	1051	1051	1052	1051	1052	1051	1048	1040	1039	1039	1043	1052	1056	1056	1055	1055	1056	1056	1056	1055	1055	1055	1055	1055
3 *	1053	1052	1052	1052	1052	1052	1052	1054	1052	1053	1048	1045	1047	1050	1053	1054	1054	1053	1055	1055	1056	1057	1056	1054	1054	1054	1054
4	1052	1052	1052	1052	1052	1052	1051	1052	1051	1049	1043	1044	1047	1047	1051	1052	1054	1054	1055	1056	1057	1058	1058	1055	1055	1055	
5	1052	1052	1051	1051	1051	1051	1051	1052	1054	1050	1045	1046	1050	1054	1058	1059	1058	1052	1050	1059	1058	1057	1056	1056	1055	1055	
6	1054	1053	1053	1052	1052	1052	1053	1055	1059	1055	1054	1053	1056	1058	1058	1060	1060	1059	1058	1059	1061	1058	1059	1059	1057	1057	
7	1056	1056	1055	1055	1054	1054	1053	1054	1052	1047	1045	1045	1052	1055	1057	1058	1059	1060	1060	1061	1064	1064	1064	1064	1064	1060	
8 **	1057	1055	1052	1051	1045	1045	1046	1047	1046	1046	1045	1053	1059	1049	1066	1067	1102	1067	1090	1084	1081	1081	1075	1059	1059	1059	
9 **	1052	1048	1052	1048	1046	1044	1048	1053	1051	1051	1048	1051	1081	1075	1081	1096	1106	1096	1098	1097	1088	1082	1078	1076	1076	1076	
10	1073	1069	1057	1058	1061	1064	1064	1062	1056	1064	1053	1056	1081	1063	1066	1069	1069	1069	1068	1065	1065	1065	1064	1063	1063	1063	
11	1061	1063	1064	1063	1064	1064	1063	1064	1063	1063	1059	1054	1062	1055	1059	1064	1066	1067	1066	1065	1065	1065	1061	1059	1059	1059	
12 *	1057	1058	1059	1059	1059	1060	1059	1060	1059	1054	1049	1048	1051	1055	1058	1061	1061	1061	1061	1061	1060	1059	1057	1056	1056	1056	
13 *	1054	1055	1054	1055	1057	1057	1057	1058	1060	1057	1052	1054	1054	1057	1063	1065	1064	1063	1063	1063	1060	1059	1057	1055	1055	1055	
14	1055	1055	1054	1055	1055	1057	1056	1059	1059	1057	1054	1055	1056	1059	1062	1064	1066	1069	1066	1110	1115	1109	1095	1084	1084	1084	
15	1074	1069	1069	1069	1068	1068	1067	1068	1067	1062	1059	1057	1059	1062	1065	1067	1066	1067	1065	1066	1068	1068	1068	1068	1068	1070	
16	1068	1067	1065	1064	1063	1063	1061	1062	1062	1060	1059	1058	1066	1058	1058	1059	1063	1062	1062	1062	1063	1064	1061	1059	1059	1059	
17 **	1056	1059	1059	1059	1059	1059	1057	1057	1056	1054	1052	1051	1053	1058	1070	1095	1090	1064	1069	1069	1061	1073	1061	1061	1061	1061	
18	1062	1060	1061	1062	1062	1063	1062	1064	1063	1061	1059	1061	1067	1071	1068	1068	1069	1070	1068	1067	1069	1068	1066	1063	1063	1063	
19	1061	1059	1053	1054	1059	1061	1059	1061	1063	1059	1059	1060	1061	1065	1067	1065	1066	1066	1066	1069	1066	1066	1066	1064	1060	1060	
20	1059	1057	1057	1057	1056	1055	1056	1056	1056	1056	1057	1061	1063	1067	1075	1075	1074	1072	1072	1068	1066	1063	1063	1059	1059	1059	
21 **	1060	1060	1060	1058	1057	1057	1056	1055	1055	1055	1052	1056	1061	1069	1061	1061	1060	1066	1068	1064	1071	1063	1061	1061	1061	1061	
22	1060	1062	1060	1052	1048	1054	1054	1055	1052	1052	1052	1054	1056	1065	1071	1073	1074	1070	1066	1066	1065	1063	1060	1058	1058	1058	
23	1052	1044	1044	1044	1042	1049	1051	1051	1054	1057	1053	1052	1054	1060	1066	1072	1075	1074	1068	1063	1060	1058	1058	1058	1058	1058	
24	1057	1057	1057	1056	1057	1057	1055	1052	1052	1055	1052	1052	1057	1062	1070	1079	1085	1091	1096	1085	1080	1080	1075	1068	1068	1068	
25	1064	1062	1064	1062	1062	1064	1063	1063	1060	1060	1058	1056	1060	1067	1066	1072	1079	1079	1073	1069	1064	1062	1060	1060	1060	1060	
26 **	1058	1059	1051	1049	1053	1056	1056	1052	1048	1053	1059	1063	1070	1070	1071	1075	1080	1060	1075	1073	1072	1070	1065	1061	1061	1061	
27	1055	1057	1058	1058	1058	1058	1058	1057	1059	1058	1052	1052	1055	1057	1060	1063	1065	1065	1063	1062	1061	1058	1058	1058	1056	1056	
28 *	1054	1056	1056	1057	1057	1058	1058	1058	1059	1060	1058	1061	1061	1064	1065	1066	1069	1066	1068	1064	1064	1063	1059	1058	1058	1058	
29	1057	1056	1056	1056	1056	1057	1057	1058	1060	1058	1056	1055	1056	1056	1059	1060	1063	1063	1062	1062	1063	1061	1059	1060	1060	1060	
30 *	1059	1058	1058	1058	1058	1058	1058	1058	1057	1063	1048	1050	1051	1063	1057	1061	1062	1062	1062	1062	1062	1062	1060	1060	1060	1060	
Mean	1057	1057	1056	1056	1056	1057	1056	1057	1057	1055	1052	1053	1056	1060	1064	1068	1070	1070	1070	1069	1067	1066	1063	1060	1060	1060	
Mean *	1055	1056	1056	1056	1057	1057	1057	1058	1057	1055	1051	1052	1053	1056	1059	1061	1062	1061	1062	1061	1060	1060	1058	1056	1056	1056	
Mean **	1053	1056	1055	1053	1052	1052	1053	1053	1051	1052	1051	1055	1061	1068	1078	1089	1092	1091	1090	1085	1079	1074	1068	1064	1064	1064	
<b>December</b>																											
42000 γ + Tabular Quantities (in γ).																											
1 *	1056	1056	1056	1056	1056	1057	1058	1057	1057	1055	1051	1050	1049	1051	1053	1055	1059	1058	1057	1057	1057	1057	1057	1057	1054	1054	
2 **	1053	1052	1052	1052	1052	1054	1053	1052	1051	1052	1052	1049	1052	1056	1059	1064	1076	1062	1107	1134	1136	1119	1105	1100	1100	1100	
3 **	1050	1053	1052	1051	1045	1046	1045	1047	1050	1053	1056	1064	1069	1072	1080	1088	1097	1112	1129	1136	1138	1114	1102	1067	1067	1067	
4	1053	1051	1076	1074	1070	1069	1069	1069	1070	1070	1069	1069	1069	1070	1072	1073	1074	1071	1070	1071	1072	1070	1070	1069	1069	1069	
5	1066	1066	1067	1066	1067	1069	1066	1066	1066	1066	1063	1059	1065	1071	1074	1073	1075	1073	1070	1066	1070	1069	1068	1067	1067	1067	
6	1066	1063	1063	1063	1062	1062	1061	1059	1057	1053	1052	1051	1056	1059	1061	1065	1068	1066	1065	1064	1066	1064	1064	1064	1064	1064	
7	1063	1063	1063	1061	1061	1061	1060	1059	1058	1057	1064	1053	1052	1054	1058	1062	1064	1063	1064	1061	1060	1061	1060	1060	1060	1060	
8 *	1060	1059	1060	1059	1059	1060	1059	1058	1054	1051	1047	1048	1053	1056	1058	1061	1064	1062	1062	1059	1059	1058	1058	1058	1058	1058	
9	1056	1057	1058	1058	1058	1058	1053	1053	1051	1050	1047	1047	1050	1053	1058	1060	1064	1064	1074	1061	1063	1060	1076	1068	1068	1068	
10 **	1064	1063	1069	1068	1069	1060	1062	1061	1058	1054	1050	1051	1050	1057	1070	1095	1095	1100	1114	1119	1140	1118	1108	1096	1096	1096	
11	1068	1061	1076	1077	1076	1076	1074	1074	1074	1075	1066	1069	1069	1066	1070	1074	1077	1076	1076	1074	1074	1074	1071	1069	1069	1069	
12	1066	1066	1066	1066	1066	1070	1066	1066	1065	1063	1056	1056	1056	1061	1072	1075	1076	1076	1075	1073	1073	1071	1068	1066	1066	1066	
13	1060	1060	1063	1064	1066	1067	1065	1064	1064	1064	1062	1060	1062	1065	1065	1068	1070	1071	1072	1075	1074	1077	1077	1073	1073	1073	
14	1070	1066	1067	10																							

TABLE IV. - DAILY MEAN AND EXTREME VALUES OF MAGNETIC ELEMENTS AS RECORDED BY THE MAGNETOGRAPHS.

Date	DECLINATION WEST						HORIZONTAL INTENSITY						VERTICAL INTENSITY					
	Mean Daily Value	Maximum	Minimum	Range	U.T. h.m.	U.T. h.m.	Mean Daily Value	Maximum	Minimum	Range	U.T. h.m.	U.T. h.m.	Mean Daily Value	Maximum	Minimum	Range	U.T. h.m.	U.T. h.m.
Jan.	10°+	10°+	10°+		U.T. h.m.	U.T. h.m.	18000 Y+	18000 Y+	18000 Y+	U.T. h.m.	U.T. h.m.	42000 Y+	42000 Y+	42000 Y+	U.T. h.m.	U.T. h.m.	U.T. h.m.	U.T. h.m.
1	65° 8	12 3	69° 3	60° 3	21 26	9° 0	529	0 0	557	510	21 12	47	1036	22 5	1047	1029	0 24	18
2	66° 0	13 26	71° 3	61° 1	21 37	10° 2	523	20 10	547	492	14 47	55	1042	16 1	1056	1034	8 51	22
3	65° 4	13 21	70° 3	58° 7	19 26	11° 6	524	19 6	563	487	15 10	76	1043	19 6	1060	1034	12 53	26
4	65° 1	13 36	74° 1	44° 6	20 50	29° 5	516	7 49	547	427	14 1	120	1045	14 42	1073	1028	11 20	45
5 *	65° 5	0 3	68° 1	62° 3	2 59	5° 8	520	21 10	532	490	9 55	42	1039	0 3	1046	1029	12 53	17
6	65° 9	18 47	70° 4	61° 5	17 54	8° 9	524	6 38	541	439	17 37	102	1039	18 0	1067	1027	12 20	40
7	64° 7	15 18	74° 8	51° 8	19 16	23° 0	518	1 17	557	470	15 47	87	1041	18 49	1060	1031	12 53	29
8	65° 0	4 38	72° 0	54° 5	23 58	17° 5	511	1 36	552	489	10 22	63	1038	1 27	1049	1020	4 55	29
9	64° 9	13 56	68° 5	54° 1	0 43	15° 4	519	2 25	539	503	12 53	36	1033	15 38	1043	1015	4 8	28
10 *	65° 7	13 30	68° 9	63° 0	2 51	5° 9	525	20 51	540	512	13 13	28	1036	19 7	1044	1033	1 51	11
11 *	66° 1	14 27	70° 2	62° 4	0 31	7° 8	528	8 31	548	510	15 57	38	1034	21 43	1047	1023	11 52	24
12	66° 2	17 18	79° 1	52° 5	22 18	26° 6	524	22 30	588	445	18 59	143	1044	19 15	1089	1027	11 54	62
13	64° 0	5 4	74° 5	51° 0	0 7	23° 5	499	5 22	545	462	9 27	83	1041	18 41	1064	997	4 34	67
14 *	66° 4	13 33	72° 3	61° 9	21 38	10° 4	519	21 52	540	484	14 18	56	1043	15 5	1052	1036	4 34	16
15	65° 6	13 30	71° 0	56° 7	19 20	14° 3	524	23 1	569	501	13 12	68	1041	14 30	1051	1034	3 10	17
16 **	66° 6	23 59	86° 4	44° 1	22 40	42° 3	536	22 59	752	495	17 0	257	1042	22 38	1115	1020	23 52	95
17 **	65° 5	0 0	85° 9	40° 1	21 48	45° 8	474	15 52	641	381	8 8	260	1076	16 2	1296	1006	1 50	290
18	64° 0	17 18	71° 3	54° 3	22 37	17° 0	470	17 0	537	436	2 38	101	1069	15 42	1100	1057	11 53	43
19	64° 9	13 50	71° 4	53° 8	16 28	17° 6	484	18 1	594	447	14 0	147	1082	16 18	1106	1046	10 33	60
20	65° 2	5 40	70° 0	57° 2	18 30	12° 8	500	18 36	562	452	12 6	110	1054	18 32	1077	1033	6 56	44
21	65° 3	13 33	74° 0	53° 0	23 50	21° 0	489	21 34	560	421	10 33	139	1058	17 48	1093	1031	4 26	62
22 **	61° 5	9 19	86° 5	29° 8	9 33	56° 7	-	8 9	625	-101	9 30	726	1090	17 4	1205	963	9 33	242
23	63° 6	11 51	70° 5	52° 8	23 59	17° 7	464	23 24	525	418	10 18	109	1069	0 0	1079	1058	11 54	21
24	62° 8	15 7	69° 5	52° 8	0 0	16° 7	490	17 58	520	469	21 20	51	1060	21 37	1078	1043	1 54	35
25 **	-	20 53	129° 4	3° 9	19 52	125° 5	-	20 39	741	-243	22 2	984	1070	20 34	1306	740	20 39	566
26 **	65° 4	1 22	97° 5	35° 6	0 21	61° 9	-	18 21	518	-315	0 13	833	1071	15 9	1112	737	0 11	375
27	64° 3	13 12	70° 8	57° 8	18 39	13° 0	493	23 0	526	460	15 29	66	1067	15 46	1081	1061	12 14	20
28	64° 5	13 25	71° 5	56° 2	21 7	16° 3	503	19 15	528	469	14 14	57	1058	14 47	1086	1049	10 28	17
29	64° 3	13 29	70° 0	50° 5	23 2	19° 5	509	22 18	558	466	11 13	92	1051	22 18	1069	1039	9 34	30
30 *	65° 0	13 2	70° 5	60° 4	0 18	10° 1	512	18 13	531	485	21 37	46	1053	20 42	1070	1039	8 57	31
31	64° 6	19 57	72° 9	37° 2	21 10	35° 7	508	19 27	583	428	20 37	155	1053	20 55	1078	1037	11 30	41
Mean	65° 0	-	75° 6	51° 5	-	24° 1	508	-	567	400	-	167° 0	1052	-	1090	1011	-	78° 2
Mean *	65° 7	-	70° 0	62° 0	-	8° 0	521	-	538	496	-	42° 0	1041	-	1052	1032	-	19° 8
Mean **	64° 8	-	97° 1	30° 7	-	66° 4	-	-	655	043	-	612° 0	1070	-	1207	893	-	313° 6
Feb.	10°+	U.T. h.m.	10°+	10°+	U.T. h.m.		18000 Y+	U.T. h.m.	18000 Y+	18000 Y+	U.T. h.m.	Y	42000 Y+	U.T. h.m.	42000 Y+	42000 Y+	U.T. h.m.	Y
1	64° 6	13 8	71° 6	55° 6	21 11	16° 0	498	23 42	549	465	13 30	84	1058	21 20	1070	1048	11 30	22
2	64° 6	13 31	70° 2	57° 0	0 15	13° 2	509	7 7	528	467	0 37	39	1050	22 6	1059	1040	10 35	19
3	63° 8	12 41	70° 7	55° 7	16 32	15° 0	509	16 38	544	476	16 13	68	1050	16 36	1079	1034	8 56	45
4	64° 4	13 52	70° 9	58° 0	1 23	12° 9	514	23 34	547	472	15 0	75	1048	16 7	1066	1038	10 33	28
5	64° 9	12 35	72° 1	59° 9	0 40	12° 2	519	8 10	536	501	10 33	35	1045	19 15	1056	1035	10 14	21
6 **	64° 1	16 20	75° 5	45° 1	19 13	30° 4	504	6 2	580	430	16 44	150	1048	18 59	1096	997	6 51	99
7	64° 6	12 11	72° 5	52° 7	1 13	19° 8	506	15 38	551	457	13 18	94	1052	15 1	1081	1041	11 39	20
8 **	65° 1	16 43	77° 8	43° 6	20 48	34° 2	512	20 51	607	422	22 4	185	1060	18 28	1153	1032	13 23	121
9 **	65° 1	5 11	74° 4	56° 2	9 10	18° 2	494	21 32	533	446	13 39	87	1052	17 52	1081	1018	5 43	63
10 **	63° 5	12 27	73° 3	48° 1	4 27	25° 2	506	4 0	566	462	12 46	104	1042	16 33	1081	998	4 14	65
11	65° 0	6 0	73° 6	54° 4	4 8	19° 2	500	3 12	553	471	14 40	82	1040	17 42	1068	997	6 23	71
12	65° 1	13 40	71° 6	61° 4	23 59	10° 2	510	8 8	536	477	14 7	59	1050	21 41	1058	1044	12 50	14
13	65° 3	13 40	74° 5	58° 6	21 22	15° 9	514	20 41	564	466	11 47	98	1047	17 6	1083	1028	11 43	35
14 **	65° 5	13 41	75° 5	51° 9	17 59	23° 6	498	6 12	567	428	12 20	139	1058	18 0	1131	1018	11 33	113
15 *	64° 8	12 54	69° 5	60° 3	9 12	9° 2	498	22 48	515	473	11 28	42	1050	5 23	1060	1030	13 22	30
16 *	64° 6	13 27	69° 7	58° 0	9 41	11° 6	509	21 24	522	470	11 53	52	1048	17 3	1054	1034	11 48	20
17	65° 1	13 22	69° 2	60° 7	9 36	8° 5	521	21 21	535	486	12 10	47	1045	8 40	1051	1033	12 11	18
18	64° 7	12 56	71° 1	59° 7	9 1	11° 4	521	23 37	545	484	11 53	61	1045	17 6	1056	1036	11 33	22
19 *	64° 5	13 28	67° 6	59° 9	8 56	7° 9	524	0 0	536	501	11 30	35	1040	5 46	1046	1029	12 55	17
20 *	65° 2	13 51	69° 9	60° 9	9 40	9° 0	527	6 11	540	500	13 9	40	1040	15 36	1049	1023	11 22	26
21	65° 0	13 49	68° 9	61° 3	10 11	7° 6	529	8 6	544	508	11 54	36	1041	17 33	1048	1028	11 54	20
22 *	64° 9	14 47	69° 5	61° 2	9 24	8° 3	530	8 3	537	515	11 40	22	1042	17 32	1051	1028	12 3	23
23	65° 0	14 43	74° 9	55° 3	22 33	19° 6	533	6 16	574	496	16 37	78	1042	20 45	1059	1031	11 28	26
24	64° 8	13 56	69° 5	59° 8	22 11	9° 7	523	7 28	541	502	11 20	39	1044	22 40	1053	1034	9 53	19
25	66° 7	14 38	75° 8	56° 1	19 31	19° 7	523	19 34	572	476	17 44	96	1048	19 32	1079	1023	11 12	56
26	65° 7	12 47	72° 2	57° 5	19 36	14° 7	521	22 32	548	488	1							

TABLE IV. - DAILY MEAN AND EXTREME VALUES OF MAGNETIC ELEMENTS - continued

Date	DECLINATION WEST						HORIZONTAL INTENSITY						VERTICAL INTENSITY						
	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range			
<b>Mar.</b>	10°+	U.T.	10°+	10°+	U.T.		18000	U.T.	18000	18000	U.T.	Y	42000	U.T.	42000	42000	U.T.	Y	
	Y +	h.m.	Y +	Y +	h.m.		Y +	h.m.	Y +	h.m.	Y	Y +	h.m.	Y +	Y +	h.m.	Y	Y	
1 **	63°7	14 18	76°0	49°1	19 33	26°9	512	19 34	563	469	14 30	94	1048	15 4	1081	1022	1 27	59	
2	65°2	13 54	73°4	60°5	3 40	12°9	524	3 3	568	499	12 23	59	1042	16 20	1054	1032	12 32	22	
3	65°0	13 33	70°8	59°6	20 25	11°2	527	23 48	557	510	11 13	47	1043	20 9	1054	1026	12 0	28	
4	67°3	16 12	86°7	51°5	20 5	35°2	515	8 13	563	452	17 3	111	1057	18 12	1147	1025	12 10	122	
5 **	63°6	14 48	70°0	52°9	2 51	17°1	509	2 6	533	491	18 50	42	1044	19 35	1064	1022	2 28	42	
6	65°8	14 8	73°2	61°4	0 10	11°8	517	8 54	531	494	17 10	37	1052	17 2	1073	1034	12 30	39	
7	64°9	14 30	71°2	60°5	22 17	10°7	519	22 21	534	499	12 45	35	1047	18 26	1055	1026	12 36	29	
8	64°9	14 47	71°1	60°7	22 11	10°4	523	21 11	538	509	13 16	29	1046	21 6	1058	1026	12 14	32	
9	65°5	14 30	70°9	62°0	9 5	8°9	528	22 10	546	502	13 36	44	1041	0 0	1052	1019	12 13	33	
10 *																			
11							530	23 12	552	512	12 13	40	1038	20 30	1050	1016	12 5	34	
12							528	5 20	560	498	16 9	62	1039	16 59	1056	1019	11 36	37	
13	65°2	12 31	70°7	60°5	8 50	10°2	529	23 57	557	503	12 54	54	1040	16 21	1046	1029	11 52	17	
14	65°5	14 10	74°8	60°0	0 18	14°8	528	0 0	555	484	12 16	71	1042	17 8	1057	1024	12 11	33	
15	65°0	13 20	74°1	57°7	0 25	16°4	522	0 32	550	479	12 19	71	1044	16 33	1056	1027	12 17	29	
16 *	65°2	13 29	73°6	58°1	9 23	15°5	526	21 40	543	489	10 50	54	1041	16 5	1052	1022	12 32	30	
17	65°2	14 16	74°2	58°4	9 32	15°8	527	2 5	561	486	10 38	75	1037	17 2	1048	1009	12 6	39	
18 *	65°4	13 57	73°5	59°4	9 15	14°1	534	0 9	549	500	10 38	49	1037	7 32	1046	1017	12 20	29	
19 *	65°1	13 53	72°7	57°7	9 14	15°0	532	7 4	547	495	12 13	52	1034	17 19	1043	1009	12 53	34	
20 *	65°2	13 20	72°9	58°3	8 47	14°6	534	21 4	552	502	11 48	50	1032	6 37	1041	1004	12 28	37	
21	64°4	13 29	74°4	58°1	8 54	16°3	537	22 42	635	507	11 15	128	1031	22 42	1047	1006	11 56	41	
22 **	66°6	13 30	79°9	47°8	23 38	32°1	504	5 18	575	448	12 38	127	1042	16 13	1081	1005	9 4	76	
23 **	61°2	13 27	71°0	42°8	24 0	28°2	496	20 22	620	390	9 42	230	1034	19 46	1078	981	23 22	95	
24 **	62°7	7 35	73°6	38°9	0 10	34°7	480	22 17	521	408	8 20	113	1024	15 44	1054	949	3 14	105	
25													1042	16 42	1066	1019	23 58	47	
26	62°9	13 17	72°4	48°1	1 9	28°3	494	21 50	543	439	1 27	104	1041	17 58	1081	980	1 37	101	
27	64°0	13 6	71°0	58°6	9 2	12°4	511	1 21	553	480	11 43	73	1036	1 12	1046	1018	11 48	28	
28	64°3	13 10	71°5	57°8	8 20	13°7	520	23 35	551	489	12 13	62	1037	7 34	1045	1018	11 12	27	
29		14 20	74°5	55°3	8 48	19°2							1038	18 40	1072	1004	12 5	68	
30	64°8	13 17	73°0	57°5	7 53	15°5	520	22 49	542	482	10 42	60	1037	15 39	1046	1021	11 40	25	
31	63°8	13 31	71°5	55°0	8 47	16°5	529	20 7	550	475	10 40	75	1033	7 20	1045	1004	12 36	41	
Mean	64°7	-	73°4	55°8	-	17°6	520	-	555	482	-	73°1	1040	-	1060	1014	-	46°0	
Mean *	65°3	-	72°7	59°1	-	13°6	531	-	547	498	-	49°8	1037	-	1047	1014	-	32°6	
Mean **	64°3	-	77°4	46°0	-	31°4	501	-	568	433	-	135°0	1041	-	1088	998	-	91°4	
<b>April</b>	10°+	U.T.	10°+	10°+	U.T.		18000	U.T.	18000	18000	U.T.	Y	42000	U.T.	42000	42000	U.T.	Y	
	Y +	h.m.	Y +	Y +	h.m.		Y +	h.m.	Y +	h.m.	Y	Y +	h.m.	Y +	Y +	h.m.	Y	Y	
1	64°9	14 16	74°3	55°4	8 43	18°9	529	15 58	558	494	9 30	64	1033	7 20	1043	1005	12 0	38	
2 *	64°6	13 29	74°0	55°1	8 54	18°9	534	19 22	557	500	10 6	57	1030	7 20	1044	999	11 50	45	
3	64°9	13 44	75°4	57°0	8 39	18°4	530	1 53	557	489	13 12	68	1029	18 8	1046	991	12 22	55	
4	64°6	13 58	75°4	56°9	8 27	18°5	529	4 37	558	474	11 27	84	1032	17 4	1049	1002	11 27	47	
5 *	64°0	13 30	71°4	57°7	8 47	13°7	528	23 0	548	490	11 10	58	1031	17 2	1040	1005	11 37	35	
6	64°0	13 24	74°2	53°1	6 5	21°1	526	22 43	566	472	8 45	114	1033	20 8	1054	1014	12 9	40	
7	62°6	13 24	73°0	52°1	4 21	20°9	518	6 4	557	466	12 35	91	1034	17 28	1054	1012	11 34	42	
8	63°7	13 20	72°3	55°1	8 18	17°2	522	21 52	567	472	11 43	95	1034	18 31	1049	1003	11 47	46	
9	64°2	12 53	75°0	56°4	7 57	18°6	523	23 56	555	472	9 50	83	1033	6 48	1045	1002	12 29	43	
10	64°7	13 20	75°0	56°4	8 28	18°6	528	0 0	553	491	11 47	62	1032	16 0	1056	998	11 25	60	
11	64°3	13 20	74°1	56°9	21 13	17°2	527	16 43	565	488	11 33	97	1039	17 20	1069	1014	11 13	55	
12	64°0	12 34	71°3	56°8	7 45	14°5	526	20 6	567	480	12 4	107	1033	20 5	1050	1008	11 36	42	
13 **	65°2	14 8	76°2	56°1	8 53	20°1	532	16 2	613	483	23 34	150	1032	18 1	1068	984	12 24	84	
14 **	63°6	12 56	78°2	46°6	4 31	31°6	505	8 44	592	431	8 42	161	1029	16 33	1071	993	5 5	78	
15	63°9	14 51	75°6	49°8	8 45	25°8	518	1 9	575	455	11 36	120	1030	18 12	1053	994	10 57	59	
16 **		6 15	257°7	-49°1	7 50	306°6		7 54	812	-565	7 21	1377		7 52	1213	714	7 36	499	
17 **	61°9	13 56	71°8	52°6	8 28	19°2	483	15 53	571	423	10 19	146	1061	16 4	1090	1032	24 0	58	
18	62°7	13 17	73°5	53°7	24 0	19°8	504	19 5	575	454	9 43	121	1043	16 42	1070	1021	1 36	49	
19 *	61°5	13 42	72°1	53°1	8 53	19°0	502	18 43	568	439	10 49	119	1042	18 43	1063	1023	1 38	40	
20	63°6	14 5	74°0	54°9	8 40	19°1	516	20 47	548	470	10 37	78	1041	20 43	1057	1012	11 56	45	
21	62°8	13 47	72°3	56°2	8 42	16°1	520	18 23	549	482	10 40	67	1037	7 28	1056	1006	16 20	50	
22	64°0	12 50	74°7	56°9	8 17	17°8	526	17 42	568	497	10 10	91	1037	19 22	1068	1007	12 21	81	
23 **	64°3	14 22	74°7	55°3	21 28	19°4	509	21 33	569	455	10 11	114	1054	15 48	1119	1018	9 43	101	
24	63°0	13 50	70°6	56°6	8 10	14°0	508	19 51	555	455	10 51	100	1042	18 8	1064	1024	10 51	40	
25	61°6	12 57	70°7	56°0	5 8	14°7	513	15 52	551	464	10 48	87	1043	18 13	1060	1022	12 4	58	
26	62°4	13 16	72°2	55°0	7 42	17°2	517	19 42	551	477	12 57	74	1036	5 20	1046	1006	12 58	40	
27	62°8	12 58	71°7	55°9	8 37	15°8	524	16 52	551	486	11 40	65	1036	2 36	1045	1015	11 55	30	



TABLE IV. - DAILY MEAN AND EXTREME VALUES OF MAGNETIC ELEMENTS - continued.

Date	DECLINATION WEST					HORIZONTAL INTENSITY					VERTICAL INTENSITY							
	Mean Daily Value	Maximum		Minimum		Range	Mean Daily Value	Maximum		Minimum		Range	Mean Daily Value	Maximum		Minimum		Range
<b>May</b>	10°+	U.T.	10°+	10°+	U.T.		18000	U.T.	18000	18000	U.T.		42000	U.T.	42000	42000	U.T.	Y
	Y +	h.m.	Y +	h.m.	Y	Y +	h.m.	Y +	h.m.	Y	Y +	h.m.	Y +	h.m.	Y +	h.m.	Y	Y
1 *	62°5	12 52	68°5	54°0	7 42	14°5	532	18 59	564	497	10 47	67	1035	4 57	1050	1003	12 22	47
2	63°2	13 32	74°0	55°6	7 12	18°4	532	22 38	553	498	10 13	55	1037	18 22	1050	1008	11 38	44
3	64°1	14 9	72°9	58°0	8 27	14°9	524	5 28	567	470	10 30	97	1043	18 38	1090	1013	11 58	77
4 **	63°3	15 32	77°4	47°3	2 57	30°1	519	15 29	645	467	16 19	178	1044	15 23	1106	1010	2 40	96
5	62°0	13 28	69°1	55°0	7 56	14°1	520	22 51	589	477	10 20	112	1048	18 57	1090	1019	11 54	71
6	63°2	13 55	72°6	55°8	8 21	16°8	519	17 52	549	475	12 18	74	1041	16 22	1055	1015	11 37	40
7	62°5	13 27	69°2	56°3	7 42	12°9	523	16 40	555	492	12 17	63	1045	16 41	1063	1023	11 58	40
8 *	62°9	12 47	70°0	57°0	7 57	13°0	537	21 35	558	511	13 32	47	1039	18 3	1049	1014	12 20	35
9	62°3	13 0	67°5	57°4	6 53	10°1	537	21 37	562	525	14 14	37	1036	4 48	1049	1011	11 40	38
10	62°5	1 50	69°6	54°8	7 50	14°8	539	14 51	562	520	7 16	42	1034	5 24	1047	1005	11 38	42
11 **	-	17 58	78°4	- 0°7	23 53	79°1	-	17 53	873	- 87	23 45	960	1034	17 55	1169	749	23 57	420
12 **	59°9	24 0	72°8	33°5	0 0	38°3	461	17 35	568	350	0 0	218	1059	17 33	1141	789	0 0	352
13	61°2	0 3	73°6	54°0	7 15	19°6	492	22 9	533	422	0 13	111	1058	15 42	1075	984	0 10	91
14 **	62°0	13 26	79°4	52°5	7 12	26°9	504	14 22	552	438	15 12	114	1051	14 37	1096	1006	10 45	90
15	62°2	13 52	71°1	48°3	1 5	22°8	499	17 28	563	442	10 19	121	1046	17 16	1086	991	0 57	95
16	62°5	14 28	69°2	55°4	8 27	13°8	503	19 19	551	463	11 12	88	1059	15 33	1083	1039	5 49	44
17	61°6	13 44	68°1	55°4	8 44	12°7	515	18 27	567	472	9 43	95	1046	19 33	1068	1024	2 48	44
18	61°7	12 58	68°9	54°6	7 53	14°3	519	17 30	547	491	7 31	56	1048	17 22	1063	1022	12 22	41
19	62°2	12 10	69°7	56°0	7 48	13°7	525	16 30	552	490	10 7	62	1050	16 31	1064	1020	10 58	44
20 *	61°7	13 20	67°9	55°8	7 21	12°1	523	19 28	542	500	13 15	42	1046	5 21	1058	1024	12 56	34
21	61°6	13 52	68°6	51°4	8 22	17°2	531	21 10	551	499	11 32	52	1044	5 2	1054	1021	11 51	33
22	62°1	13 18	68°4	55°1	7 36	13°3	532	19 42	565	503	13 48	62	1042	18 0	1053	1020	11 50	33
23 *	61°6	12 5	66°0	56°1	7 0	9°9	536	17 32	561	514	11 54	47	1041	5 2	1052	1020	11 53	32
24	61°3	12 57	68°2	55°6	6 52	12°6	543	16 47	607	502	13 21	105	1040	17 23	1069	1010	11 20	59
25	61°4	11 59	67°6	53°2	4 51	14°4	537	17 53	561	506	9 37	55	1035	20 9	1049	1005	11 5	44
26 *	-	13 43	66°9	53°6	-	13°3	-	16 30	560	509	-	51	1038	4 41	1049	1017	11 53	32
27	62°3	13 40	68°7	56°3	6 42	12°4	539	17 6	573	514	12 53	59	1040	18 20	1058	1013	11 34	45
28	62°5	13 23	69°2	49°9	6 20	19°3	541	20 38	585	479	7 21	106	1037	5 1	1051	1003	11 58	48
29 **	62°8	16 7	77°2	53°9	3 43	23°3	516	16 4	620	450	8 20	170	1053	16 5	1129	1020	10 18	109
30	61°6	14 8	71°8	51°3	6 52	20°5	512	19 57	545	457	8 25	88	1054	16 28	1072	1034	11 54	38
31	62°7	13°29	72°7	56°7	6 45	16°0	522	19 18	561	488	7°49	73	1047	19 22	1067	1025	12 38	42
Mean	62°2	-	70°8	51°9	-	18°9	522	-	576	462	-	113°1	1044	-	1073	999	-	74°2
Mean *	62°2	-	67°9	55°3	-	12°6	532	-	557	506	-	50°8	1040	-	1052	1016	-	36°0
Mean **	62°0	-	77°0	37°3	-	39°7	500	-	652	324	-	328°0	1048	-	1128	915	-	213°4
<b>June</b>	10°+	U.T.	10°+	10°+	U.T.		18000	U.T.	18000	18000	U.T.	Y	42000	U.T.	42000	42000	U.T.	Y
	Y +	h.m.	Y +	h.m.	Y	Y +	h.m.	Y +	h.m.	Y	Y +	h.m.	Y +	h.m.	Y +	h.m.	Y	Y
1	61°9	14 16	69°0	54°2	7 19	14°8	527	19 7	563	490	8 26	73	1045	19 20	1058	1017	13 14	41
2 **	-	14 57	72°8	54°4	22 13	18°4	-	16 56	585	493	10 52	92	-	18 50	1068	1017	10 45	51
3	61°9	14 3	69°7	54°5	6 43	15°2	527	0 0	570	492	9 3	78	1045	5 20	1060	1022	12 28	38
4 *	62°1	13 41	68°0	54°3	6 33	13°7	535	16 43	559	499	10 7	60	1041	16 43	1058	1015	11 30	43
5	61°6	14 52	68°8	52°0	4 43	16°8	536	19 18	576	479	10 19	97	1040	19 10	1056	1025	11 52	31
6	62°6	13 57	70°2	54°9	6 2	15°3	539	18 45	571	505	9 28	66	1043	20 28	1060	1020	11 50	40
7	62°0	13 29	67°1	54°3	6 12	12°8	537	22 3	644	500	9 33	144	1042	22 4	1068	1022	11 45	46
8 **	62°4	12 52	69°4	52°5	9 7	18°9	547	18 37	618	451	9 32	187	1043	19 20	1078	1013	9 35	65
9	61°7	14 57	68°8	52°2	6 22	16°6	540	16 42	576	516	9 12	60	1044	5 10	1060	1022	11 57	38
10	61°5	14 30	71°4	52°7	6 9	18°7	540	18 11	589	491	10 3	98	1049	18 12	1065	1020	9 30	65
11 **	61°1	12 22	71°3	50°9	5 28	20°4	536	19 59	581	489	8 53	92	1037	18 45	1072	1015	9 52	57
12 **	62°5	14 1	69°5	53°2	7 4	16°3	529	17 57	637	456	7 6	181	1040	17 57	1081	1014	3 53	67
13 **	61°7	14 57	70°7	48°5	5 48	22°2	525	4 50	589	455	8 30	134	1039	18 42	1071	1002	5 31	69
14	60°5	13 25	68°1	54°1	7 52	14°0	526	0 1	590	494	8 40	96	1040	0 0	1055	1018	13 40	37
15 *	61°5	13 7	67°7	55°8	8 29	11°9	531	18 54	558	501	9 37	57	1042	5 22	1063	1021	12 2	32
16	61°9	-	71°4	55°0	6 56	16°4	532	18 30	565	490	8 43	75	1037	18 29	1059	1007	11 57	52
17	61°1	13 48	71°1	53°9	6 23	17°2	532	16 21	579	500	10 38	79	1038	20 8	1064	1013	12 55	51
18	61°2	14 41	69°3	53°9	8 9	15°4	533	19 19	564	497	8 50	67	1035	19 10	1050	1000	12 30	50
19	61°6	15 2	70°0	55°0	7 36	15°0	543	16 33	587	520	10 46	87	1032	20 22	1043	1007	11 20	36
20	61°4	14 29	67°3	55°0	7 54	12°3	543	21 7	576	505	9 53	71	1033	18 20	1044	1006	12 20	38
21	62°7	14 27	69°4	57°6	8 44	11°8	541	18 20	565	484	12 0	101	1039	17 2	1059	1021	9 55	38
22	60°6	12 28	64°8	53°3	6 10	11°5	534	17 41	558	498	9 12	60	1038	19 8	1050	1021	12 31	29
23 *	61°1	13 48	64°8	55°9	7 55	8°9	533	18 20	555	510	10 13	45	1040	19 7	1050	1029	12 12	21
24	61°8	14 12	66°9	55°6	8 10	11°3	542	18 58	572	514	9 33	58	1036	5 23	1046	1019	12 28	27
25	61°4	13 29	68°5	55°7	6 59	12°8	538	19 50	562	511	14 12	51	1036	18 42	1046	1018	10 52	28
26	60°7	14 35	67°1	54°0	6 17	13°1	543	19 56	569	518	12 31	51	1038	18 12	1051	1017	11 52	34

TABLE IV. - DAILY MEAN AND EXTREME VALUES OF MAGNETIC ELEMENTS - continued.

Date	DECLINATION WEST						HORIZONTAL INTENSITY						VERTICAL INTENSITY					
	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range		
<b>July</b>	10°+	U.T. h.m.	10°+	10°+	U.T. h.m.		18000 Y+	U.T. h.m.	18000 Y+	18000 Y+	U.T. h.m.	Y	42000 Y+	U.T. h.m.	42000 Y+	42000 Y+	U.T. h.m.	Y
1	61.8	13 49	70.9	50.7	7 58	20.2	535	16 7	581	452	9 11	129	1041	17 24	1078	1015	11 55	63
2	61.7	15 7	68.9	55.0	8 35	13.9	529	17 14	583	479	10 38	84	1039	18 34	1065	1018	10 28	47
3 *	61.6	15 30	68.1	54.1	8 26	14.0	536	16 58	570	500	10 42	70	1042	18 37	1058	1020	13 28	38
4 **	62.1	16 15	72.6	49.3	21 19	23.3	538	18 0	628	461	13 58	167	1047	19 19	1094	1017	12 13	77
5	61.6	13 58	69.8	52.3	6 5	17.5	531	0 59	598	449	14 31	149	1046	17 27	1069	1017	12 9	52
6	61.5	16 17	67.3	56.5	7 37	10.8	530	17 29	572	486	13 21	86	1052	17 26	1062	1029	8 54	53
7	61.4	14 30	71.4	53.2	7 52	18.2	532	20 3	563	506	9 32	57	1053	17 28	1067	1030	12 1	37
8	61.5	13 40	69.0	55.2	5 53	13.8	532	21 3	554	493	12 38	61	1057	19 37	1072	1043	11 38	29
9	60.4	14 3	68.3	51.2	23 32	17.1	541	19 53	612	505	10 38	107	1053	19 56	1071	1031	11 30	40
10 **	62.6	14 20	71.0	50.7	0 37	20.3	539	17 52	659	477	14 6	182	1050	19 13	1093	1018	0 32	75
11	60.1	0 27	71.1	51.3	7 42	19.8	533	0 22	587	498	9 32	89	1052	0 23	1064	1035	0 52	29
12	61.6	14 52	71.0	54.2	8 0	16.8	541	16 28	582	502	8 59	80	1045	17 43	1058	1021	11 50	37
13	60.0	13 51	67.4	51.6	8 38	15.8	548	20 7	610	523	13 42	87	1041	20 7	1063	1014	11 42	49
14	60.5	2 9	72.1	50.5	6 9	21.6	536	2 18	600	473	9 40	127	1043	19 33	1071	1005	2 32	66
15 **	61.4	16 13	78.2	45.8	21 47	32.4	523	16 48	642	436	22 20	206	1066	16 31	1168	1013	23 7	155
16 **	60.6	15 54	69.4	49.1	6 34	20.3	496	19 2	619	405	9 17	214	1062	19 2	1106	1009	1 12	97
17	60.2	14 9	68.8	52.3	7 22	14.5	512	18 43	544	477	10 20	67	1059	18 51	1079	1033	12 43	46
18	61.2	13 16	68.7	53.1	8 33	15.6	523	19 21	580	480	11 17	80	1056	17 34	1069	1031	11 52	38
19	60.6	13 24	68.0	53.1	7 8	14.9	525	16 7	549	477	10 53	72	1055	18 23	1069	1036	12 56	31
20	60.6	14 7	67.5	54.2	9 20	13.3	534	18 6	558	504	12 17	54	1056	17 36	1073	1036	10 59	37
21	60.9	14 58	68.7	55.0	8 20	11.7	536	18 22	558	512	13 24	46	1056	18 20	1082	1033	12 10	49
22	61.2	13 42	67.8	54.0	8 14	13.8	534	17 29	587	506	11 10	61	1054	17 28	1076	1033	12 0	43
23	60.7	13 42	69.2	53.1	7 17	16.1	531	20 1	587	498	9 38	71	1052	18 12	1073	1031	11 34	42
24	61.1	13 7	69.9	53.8	5 26	16.1	536	20 20	585	505	8 28	60	1048	17 48	1070	1023	10 59	47
25 *	60.9	13 28	69.9	54.3	7 0	15.6	533	0 52	555	501	9 56	54	1047	17 23	1062	1025	12 27	37
26 *	60.9	13 38	69.9	52.4	6 33	17.5	536	19 6	558	512	8 38	46	1051	17 45	1074	1031	12 12	43
27 *	60.7	13 58	69.4	52.5	6 23	16.9	540	16 40	568	500	8 33	68	1047	16 42	1065	1028	12 7	37
28 *	61.2	12 53	71.3	53.0	6 12	18.3	537	20 3	558	505	8 37	53	1044	17 13	1057	1021	11 8	36
29	61.4	13 30	73.2	53.3	6 33	19.9	544	20 5	576	513	14 7	63	1041	18 2	1066	1005	11 35	61
30 **	62.2	5 23	69.9	53.3	23 47	16.6	510	4 54	587	444	14 44	143	1048	19 37	1088	1012	7 57	76
31	58.9	13 47	66.4	51.2	8 18	15.2	507	18 42	545	466	11 48	79	1058	17 40	1071	1040	13 22	31
Mean	61.1	-	69.7	52.6	-	17.1	531	-	579	486	-	93.9	1050	-	1076	1024	-	51.5
Mean *	61.0	-	69.7	53.3	-	16.5	537	-	562	504	-	58.2	1046	-	1063	1025	-	38.2
Mean **	61.8	-	72.2	49.6	-	22.6	521	-	627	445	-	182.4	1055	-	1110	1014	-	96.0
<b>Aug.</b>	10°+	U.T. h.m.	10°+	10°+	U.T. h.m.		18000 Y+	U.T. h.m.	18000 Y+	18000 Y+	U.T. h.m.	Y	42000 Y+	U.T. h.m.	42000 Y+	42000 Y+	U.T. h.m.	Y
1	60.3	14 8	71.3	49.4	8 5	21.9	527	23 26	573	477	11 52	96	1057	17 27	1110	1015	23 51	95
2	58.1	14 31	65.3	48.4	21 4	16.9	516	21 10	573	468	12 5	105	1055	18 12	1106	983	4 8	123
3 **	58.9	21 43	73.4	41.9	23 20	31.5	524	21 37	699	442	24 0	257	1047	21 37	1088	970	23 41	118
4 **	61.2	14 57	74.3	46.4	0 20	27.9	500	16 50	587	392	8 57	195	1061	16 47	1110	972	0 2	138
5	59.7	14 0	70.6	48.2	7 38	22.4	506	18 34	572	452	11 33	120	1055	17 20	1105	1016	3 30	89
6	60.6	13 31	69.4	51.0	7 33	18.4	515	20 0	571	468	8 47	103	1056	17 37	1074	1038	12 30	36
7	61.7	13 18	69.6	54.9	6 28	14.7	519	15 12	553	475	10 15	78	1055	17 37	1080	1037	11 3	43
8	61.0	12 58	68.8	55.0	6 35	13.8	525	19 59	550	491	10 28	59	1052	16 20	1066	1023	11 26	43
9	61.1	13 21	69.5	54.4	7 40	15.1	532	19 21	555	499	9 19	56	1049	17 21	1061	1029	11 57	32
10	61.3	14 18	69.9	51.6	6 32	18.3	540	16 43	585	502	8 57	83	1046	3 28	1057	1022	12 22	35
11 **	63.6	13 53	80.0	55.7	4 21	24.3	520	18 18	579	439	10 34	140	1067	16 44	1147	1015	10 29	132
12	60.4	12 57	68.7	52.4	6 27	16.3	508	18 1	580	464	9 33	96	1061	0 56	1074	1043	9 59	31
13	60.8	13 2	71.1	51.5	7 41	19.6	524	18 29	550	491	9 28	59	1050	17 22	1065	1022	11 57	43
14	-	-	70.2	55.0	6 24	15.2	-	-	-	-	-	-	1045	17 33	1061	1014	12 26	47
15 *	60.7	13 30	67.4	58.3	8 5	11.1	531	16 23	548	498	9 53	50	1049	17 30	1061	1033	11 52	28
16 *	60.0	14 5	67.7	53.6	8 33	14.1	528	19 0	553	497	10 38	56	1046	17 23	1055	1026	12 57	29
17	61.2	13 5	71.5	54.3	7 9	17.2	531	19 17	554	496	15 6	58	1046	17 27	1062	1025	12 33	37
18 *	60.7	13 41	67.4	56.2	7 47	11.2	535	18 42	581	493	10 12	68	1052	17 46	1063	1033	11 59	30
19	60.5	13 12	68.5	53.7	8 17	14.8	537	20 30	557	511	9 36	46	1047	17 26	1066	1023	11 44	43
20 *	61.0	13 1	68.4	55.9	8 0	12.5	540	19 59	559	512	11 12	47	1047	17 20	1055	1032	12 40	23
21	60.5	12 49	72.5	52.5	7 24	20.0	535	16 10	570	501	9 54	69	1045	18 37	1077	1011	12 40	66
22 **	61.3	13 58	72.8	54.3	6 39	18.5	540	13 53	669	507	10 18	152	1052	13 57	1088	1026	11 36	62
23 **	60.9	10 19	74.4	50.7	6 6	23.7	532	14 27	597	393	9 32	204	1045	14 30	1076	1013	9 30	63
24	60.3	13 30	68.0	50.5	24 0	17.5	524	19 13	590	492	8 33	98	1052	19 17	1067	1037	12 12	30
25	59.7	12 57	70.4	50.5	0 1	19.9	522	18 46	561	475	9 16	66	1053	15 18	1066	1032	10 57	38
26	60.5	12 48	71.3	52.0	6 36	19.3	526	22 52	551	478	8 47	73	1049	15 17	1063	1025	11 6	38
27 *	60.7	13 9	70.6	53.9	7 13	16.7	532	19 41	564	475	9 26	89	1048	17 18	1059	1029	12 13	30
28	59.9	12 50																

TABLE IV. - DAILY MEAN AND EXTREME VALUES OF MAGNETIC ELEMENTS - continued

Date	DECLINATION WEST						HORIZONTAL INTENSITY						VERTICAL INTENSITY						
	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range			
<b>Sept.</b>	10°+	U.T. h.m.	10°+	10°+	U.T. h.m.			18000 Y+	U.T. h.m.	18000 Y+	18000 Y+	U.T. h.m.	Y	42000 Y+	U.T. h.m.	42000 Y+	42000 Y+	U.T. h.m.	Y
1 *	60° 2	13 47	68° 0	54° 3	7 40	13° 7	536	0 42	562	501	10 53	61	1045	17 28	1059	1020	12 20	39	
2	59° 9	15 10	65° 5	55° 2	9 12	10° 3	539	22 47	562	494	12 45	68	1045	7 5	1057	1022	12 57	35	
3	60° 2	12 7	67° 9	54° 6	8 47	13° 3	529	0 38	561	480	12 13	81	1051	17 10	1073	1034	11 58	39	
4	59° 6	14 19	65° 9	52° 5	7 24	13° 4	530	24 0	579	505	8 46	74	1050	18 38	1062	1028	12 0	34	
5	59° 7	13 53	70° 3	52° 5	7 35	17° 8	530	0 0	579	482	16 53	97	1046	17 33	1061	1028	11 14	35	
6 *	60° 3	13 30	68° 3	54° 5	7 53	11° 8	535	22 56	571	505	10 39	66	1047	6 28	1055	1035	12 26	20	
7	59° 8	13 47	67° 7	54° 0	7 2	13° 7	537	16 30	575	501	10 16	74	1044	16 30	1059	1025	10 10	34	
8	59° 2	13 4	66° 8	53° 1	7 19	13° 7	531	0 37	562	495	10 22	67	1043	16 50	1055	1028	11 54	29	
9	60° 1	12 50	67° 7	54° 8	8 27	12° 9	535	17 31	567	500	9 18	67	1039	20 5	1053	1015	12 44	38	
10	59° 6	12 20	66° 9	54° 8	7 52	12° 1	530	19 8	554	494	9 17	60	1043	16 16	1061	1027	10 53	34	
11	59° 8	12 30	71° 0	52° 9	7 37	18° 1	530	22 17	577	497	11 43	80	1040	19 7	1058	1020	11 46	36	
12	59° 6	13 29	66° 6	55° 2	8 6	11° 4	531	23 34	583	498	10 39	85	1042	16 23	1059	1023	11 1	36	
13	58° 8	14 28	68° 1	42° 1	21 18	26° 0	538	18 43	637	480	23 18	157	1039	18 43	1065	1018	23 14	47	
14 **	56° 4	15 49	69° 4	41° 0	21 23	28° 4	498	3 9	602	432	20 8	170	1058	17 36	1127	986	3 43	141	
15 **	59° 9	13 52	78° 9	24° 0	20 12	54° 9	475	20 22	623	356	9 0	267	1057	15 36	1185	928	2 54	257	
16	58° 7	14 4	64° 9	52° 3	3 40	12° 6	499	22 44	548	466	10 35	82	1052	20 43	1075	1024	2 1	51	
17	59° 0	13 42	67° 1	50° 6	2 43	16° 5	508	19 57	535	482	14 10	53	1053	15 47	1065	1040	11 52	25	
18	59° 0	13 32	65° 9	53° 8	8 33	12° 1	514	22 53	544	481	14 18	63	1047	19 35	1057	1026	13 10	31	
19 *	59° 4	13 56	65° 8	55° 0	7 48	10° 8	521	24 0	545	490	11 56	55	1047	21 30	1056	1029	12 57	27	
20	59° 7	13 57	68° 3	53° 7	8 47	14° 6	528	0 20	559	487	12 43	72	1043	20 17	1054	1018	12 58	36	
21	58° 9	13 33	65° 8	51° 4	22 36	14° 4	529	20 8	557	502	11 18	55	1049	23 13	1057	1035	12 2	22	
22	59° 3	12 34	67° 0	51° 3	8 19	15° 7	524	5 33	553	486	9 39	67	1047	17 30	1057	1030	12 55	27	
23	59° 1	13 52	67° 1	52° 0	5 59	15° 1	526	4 37	553	492	11 19	61	1046	4 37	1058	1025	12 4	33	
24 *	60° 0	13 30	67° 8	53° 4	6 10	14° 4	527	20 3	548	492	10 27	54	1048	19 36	1057	1028	10 56	29	
25 *	60° 6	13 59	70° 0	53° 3	8 6	16° 7	530	23 22	559	502	13 32	57	1045	19 40	1058	1024	11 19	34	
26 **	59° 1	13 6	70° 4	37° 2	20 54	33° 2	499	5 3	557	444	13 18	113	1060	18 3	1117	1023	9 51	94	
27 **	58° 5	13 27	67° 1	40° 3	23 4	26° 8	501	22 4	659	455	11 16	204	1059	17 26	1092	1004	23 17	88	
28 **	56° 2	13 24	66° 7	34° 0	2 34	32° 7	480	0 40	547	378	3 38	171	1047	16 43	1083	919	2 27	164	
29	58° 9	6 36	64° 7	52° 6	21 7	12° 1	501	21 12	548	442	10 37	106	1062	16 28	1083	1044	10 39	39	
30	57° 8	20 43	72° 4	44° 6	20 57	27° 8	509	20 37	610	408	20 49	202	1058	20 33	1092	1023	20 48	69	
Mean	59° 2	-	67° 9	49° 7	-	18° 2	520	-	570	474	-	96° 3	1048	-	1072	1018	-	54° 2	
Mean *	60° 1	-	67° 6	54° 1	-	13° 5	530	-	557	498	-	58° 6	1047	-	1057	1027	-	29° 8	
Mean **	58° 0	-	69° 0	42° 8	-	26° 2	491	-	603	463	-	140° 2	1056	-	1092	1011	-	80° 6	
<b>Oct.</b>	10°+	U.T. h.m.	10°+	10°+	U.T. h.m.			18000 Y+	U.T. h.m.	18000 Y+	18000 Y+	U.T. h.m.	Y	42000 Y+	U.T. h.m.	42000 Y+	42000 Y+	U.T. h.m.	Y
1 **	56° 0	3 4	63° 3	44° 7	4 21	18° 6	497	3 59	603	443	8 59	160	1046	19 11	1074	974	5 4	100	
2	57° 6	13 41	64° 4	52° 5	7 47	11° 9	511	22 10	571	466	11 19	105	1053	16 32	1074	1038	23 27	36	
3	57° 5	11 52	64° 3	50° 3	20 38	14° 0	508	23 50	531	479	10 33	52	1056	19 22	1079	1039	11 58	40	
4	59° 2	14 4	66° 7	54° 0	3 40	12° 7	514	22 49	536	458	12 18	80	1057	19 3	1069	1038	11 4	31	
5 *	59° 0	12 49	64° 8	53° 5	8 40	11° 3	519	23 0	540	486	11 20	54	1056	7 39	1065	1033	11 0	32	
6	59° 2	12 41	65° 5	53° 6	8 42	11° 9	528	6 32	551	491	11 19	60	1056	18 28	1064	1036	11 3	26	
7 **	61° 1	18 19	67° 3	35° 9	20 3	51° 4	494	17 37	581	383	18 21	198	1099	16 27	1252	1043	10 7	209	
8 **	57° 2	11 52	68° 3	44° 7	4 43	23° 6	470	5 9	578	362	11 53	216	1066	17 16	1105	1000	5 48	105	
9	58° 6	13 32	65° 4	49° 9	21 2	15° 5	503	21 32	564	452	10 21	112	1070	16 12	1087	1057	22 20	30	
10	58° 5	13 4	67° 4	51° 4	8 20	16° 0	510	21 4	577	472	10 15	106	1066	15 29	1087	1048	1 40	39	
11	60° 1	13 0	69° 2	55° 1	3 8	14° 1	517	1 32	547	483	10 18	64	1065	15 31	1090	1044	10 20	46	
12	59° 1	13 10	66° 7	53° 2	8 27	13° 5	523	21 13	554	480	9 59	74	1062	15 30	1073	1049	10 58	24	
13	59° 3	13 57	67° 3	52° 1	8 39	15° 2	526	22 2	562	478	10 33	84	1058	7 33	1065	1046	11 0	19	
14 *	59° 3	13 28	66° 0	52° 6	8 43	13° 4	530	21 3	548	484	11 18	64	1054	7 39	1063	1038	11 55	25	
15 *	59° 9	14 3	69° 2	54° 0	8 30	15° 2	529	4 59	549	487	12 35	62	1054	19 24	1065	1036	10 59	29	
16	58° 6	12 31	70° 7	49° 0	23 16	21° 7	516	2 29	550	476	12 40	74	1057	19 43	1082	1030	12 40	52	
17	59° 5	12 47	66° 9	54° 8	0 48	12° 1	526	22 2	548	493	10 8	55	1056	7 39	1063	1042	10 57	21	
18	58° 9	12 19	64° 0	53° 9	23 52	10° 1	536	21 21	580	509	10 18	51	1053	20 33	1061	1041	12 55	20	
19	58° 8	12 58	66° 5	52° 6	0 55	13° 9	534	21 52	557	508	13 13	49	1051	21 36	1063	1042	10 59	21	
20	58° 7	13 36	65° 3	50° 0	19 36	15° 3	530	6 54	580	491	12 18	69	1053	16 19	1066	1043	7 51	23	
21 *	59° 1	12 30	64° 8	55° 0	8 18	9° 8	530	22 22	563	504	12 19	59	1053	18 26	1061	1043	12 1	18	
22	58° 9	12 39	66° 6	53° 0	21 16	13° 6	532	21 21	555	505	10 8	50	1050	6 48	1055	1037	10 58	18	
23	59° 7	12 45	70° 7	53° 1	22 23	17° 6	526	22 30	604	480	11 48	124	1053	18 30	1069	1035	23 21	34	
24	59° 2	14 43	69° 9	43° 6	24 0	26° 3	509	22 58	554	474	12 12	80	1058	15 10	1093	1023	23 42	70	
25 **	58° 5	12 58	72° 6	42° 8	0 3	29° 8	506	21 7	614	450	10 35	164	1055	13 27	1065	1024	22 43	61	
26 **	58° 6	13 38	69° 7	46° 6	21 54	23° 1	505	18 18	562	450	17 29	112	1060	17 5	1106	1033	0 14	73	
27	58° 9	12 32	67° 9	48° 2	19 8	19° 7	502	20 33	550	429	12								

TABLE IV. - DAILY MEAN AND EXTREME VALUES OF MAGNETIC ELEMENTS - continued.

Date	DECLINATION WEST						HORIZONTAL INTENSITY						VERTICAL INTENSITY					
	Mean Daily Value	Maximum		Minimum		Range	Daily Value	Maximum		Minimum		Range	Daily Value	Maximum		Minimum		Range
<b>Nov.</b>	10°+	U.T.	10°+	10°+	U.T.		18000	U.T.	18000	18000	U.T.	Y	42000	U.T.	42000	42000	U.T.	Y
	h.m.	h.m.	h.m.	h.m.	h.m.		Y +	h.m.	Y +	Y +	h.m.	Y	Y +	h.m.	Y +	Y +	h.m.	Y
1	58°8	13 22	66°2	54°9	8 54	11°3	529	19 20	549	505	14 38	44	1056	15 11	1080	1047	10 47	13
2	58°8	14 9	64°6	54°4	9 5	10°2	532	21 39	546	501	11 32	45	1051	16 18	1059	1036	11 0	23
3 *	58°2	13 3	63°1	54°8	9 32	8°3	531	20 8	547	508	10 10	39	1053	21 28	1058	1043	11 3	15
4	58°2	13 6	62°9	54°0	9 20	8°9	533	21 47	547	515	10 43	32	1052	21 20	1060	1042	10 57	18
5	58°6	13 28	63°3	55°1	8 44	8°2	532	21 2	546	505	16 38	41	1054	17 7	1063	1043	10 52	20
6	58°5	12 58	64°5	54°6	8 39	9°9	527	20 50	546	500	11 19	46	1056	20 33	1063	1052	11 54	11
7	58°4	12 48	63°9	53°4	20 42	10°5	526	7 2	545	500	11 14	45	1056	21 20	1066	1041	10 57	25
8 **	59°5	14 28	70°6	41°5	23 22	28°1	514	4 38	561	449	16 3	112	1065	16 19	1108	1038	24 0	70
9 **	57°8	15 19	69°1	43°2	0 53	25°9	491	4 37	545	429	11 58	116	1067	18 20	1118	1029	0 37	89
10	57°3	11 28	61°7	46°7	0 32	15°0	507	23 6	531	480	10 12	51	1063	16 36	1071	1053	9 58	18
11	58°1	11 57	62°8	55°1	21 36	7°7	520	19 22	536	495	9 39	41	1062	17 42	1069	1052	12 5	17
12 *	58°4	12 58	63°2	55°5	9 4	6°7	530	20 3	546	502	11 15	44	1058	16 28	1064	1047	10 59	17
13 *	58°3	13 50	62°7	55°0	9 4	8°7	529	20 5	546	494	11 23	52	1058	14 33	1065	1050	11 0	15
14	59°3	18 28	73°4	49°2	23 16	24°2	524	6 53	548	478	19 8	70	1069	20 37	1119	1053	11 0	66
15	57°2	13 29	61°6	50°6	0 16	11°0	514	21 40	538	493	11 35	45	1066	0 0	1079	1056	11 12	23
16	57°6	12 47	62°6	53°5	23 28	9°1	528	23 30	565	505	11 20	80	1062	0 8	1070	1054	23 50	16
17 **	58°9	12 18	70°2	42°2	20 50	28°0	517	12 17	563	445	15 16	118	1067	18 18	1102	1048	11 55	54
18	58°1	12 22	64°5	48°6	20 19	15°9	519	4 53	536	490	11 42	46	1065	13 28	1073	1057	10 0	16
19	58°4	12 53	63°5	55°1	8 42	8°4	522	23 8	545	479	10 40	66	1062	14 27	1071	1051	2 46	20
20	58°6	13 21	64°4	56°1	21 46	8°3	522	5 46	545	489	11 19	56	1063	14 38	1078	1054	6 56	24
21 **	58°0	14 4	68°8	44°0	21 12	24°8	521	20 6	548	468	14 20	80	1065	18 12	1093	1050	9 56	43
22	57°5	12 28	62°1	53°2	23 40	8°9	513	3 58	545	484	14 51	61	1060	16 25	1075	1047	4 31	28
23	57°1	13 45	63°5	49°5	22 23	14°0	521	1 0	560	490	15 6	70	1057	16 44	1078	1041	4 12	37
24	58°7	12 49	62°5	47°4	22 55	15°1	509	5 12	548	452	18 7	96	1066	18 22	1099	1048	10 59	51
25	57°6	11 57	62°9	52°0	0 2	10°9	514	20 30	537	482	16 17	55	1065	16 43	1084	1054	11 58	30
26 **	58°2	7 30	68°5	52°9	3 6	15°6	513	2 35	562	461	12 33	101	1063	17 14	1087	1047	8 17	40
27	57°5	13 21	62°1	54°1	9 48	8°0	524	23 42	548	487	11 16	61	1058	16 30	1067	1051	11 2	16
28 *	58°0	13 28	61°7	55°4	8 37	6°3	530	20 0	547	501	12 33	48	1061	16 20	1070	1054	0 1	16
29	57°2	12 29	61°2	53°5	9 15	7°7	533	21 21	570	503	9 59	67	1059	21 17	1066	1053	10 58	13
30 *	57°5	13 55	60°8	53°4	1 2	7°4	537	19 21	550	513	11 34	37	1058	20 35	1064	1045	10 58	19
Mean	58°0	-	64°4	51°6	-	12°8	522	-	549	487	-	62°1	1061	-	1077	1048	-	28°8
Mean *	58°1	-	62°3	54°8	-	7°5	531	-	547	504	-	43°6	1057	-	1064	1048	-	16°4
Mean **	58°1	-	69°4	44°8	-	24°7	511	-	556	450	-	105°4	1066	-	1102	1042	-	59°2
<b>Dec.</b>	10°+	U.T.	10°+	10°+	U.T.		18000	U.T.	18000	18000	U.T.	Y	42000	U.T.	42000	42000	U.T.	Y
	h.m.	h.m.	h.m.	h.m.	h.m.		Y +	h.m.	Y +	Y +	h.m.	Y	Y +	h.m.	Y +	Y +	h.m.	Y
1 **	57°6	15 28	59°8	55°7	9 6	4°1	543	19 20	563	533	10 51	30	1055	8 40	1059	1048	11 59	11
2 **	58°9	19 13	71°4	36°8	21 13	34°6	514	7 24	555	429	19 54	126	1072	21 6	1144	1049	8 19	95
3 **	57°5	17 9	72°8	44°5	2 47	28°3	489	5 54	529	433	20 3	96	1080	20 13	1150	1044	5 36	106
4	56°2	13 50	59°8	44°1	0 33	15°7	511	20 17	544	476	0 12	68	1072	0 23	1097	1066	10 58	31
5	57°3	13 12	65°1	53°3	5 12	11°8	519	21 2	538	479	12 42	59	1068	16 18	1078	1059	11 22	19
6	56°8	12 27	60°6	52°4	21 18	8°2	532	21 22	539	526	19 28	13	1061	16 18	1070	1050	11 28	20
7	59°1	12 58	60°2	54°3	18 18	5°9	534	19 0	549	521	11 25	28	1060	16 25	1066	1050	11 8	16
8 *	57°6	13 26	60°6	54°7	9 7	5°9	539	17 42	551	522	11 53	29	1058	16 39	1066	1044	10 58	22
9	57°3	14 57	60°9	51°7	23 3	9°2	537	5 50	567	500	21 42	67	1061	20 20	1066	1043	11 8	43
10 **	56°5	15 15	71°3	44°5	20 40	26°8	504	8 50	539	394	18 49	145	1076	20 27	1151	1048	12 8	103
11	57°0	13 11	61°1	53°4	1 5	7°7	505	22 1	529	489	10 38	60	1074	0 0	1096	1066	13 20	30
12	56°9	13 0	62°6	53°8	5 19	8°8	518	18 27	533	490	12 39	43	1068	16 20	1079	1053	10 57	28
13	56°8	18 56	61°6	50°3	19 50	11°3	524	19 59	548	502	11 38	46	1067	22 26	1079	1056	0 55	23
14	57°1	17 11	63°3	51°6	20 0	11°7	520	16 41	535	492	20 49	43	1066	20 24	1085	1055	12 53	30
15	57°3	12 54	59°9	54°7	5 23	5°2	530	8 49	540	516	3 12	22	1066	21 44	1074	1056	9 38	18
16 **	56°2	16 50	62°4	39°5	20 7	22°9	522	9 48	560	451	19 52	109	1067	16 26	1106	1043	11 0	63
17 **	56°7	4 59	63°1	45°2	0 0	17°9	506	23 52	564	464	0 11	120	1069	16 37	1090	1044	5 29	46
18 **	55°6	13 33	63°1	46°3	0 50	17°8	495	0 0	566	391	17 31	175	1077	17 9	1124	1038	0 30	86
19	57°5	18 7	63°3	45°6	22 42	17°7	492	22 47	532	444	18 45	88	1080	19 20	1112	1060	7 58	52
20	57°1	17 42	63°3	45°6	22 21	17°7	505	22 28	537	466	18 15	71	1072	18 35	1099	1060	0 28	39
21	57°2	10 57	59°8	54°6	21 40	5°2	521	6 7	536	487	12 6	49	1067	14 42	1073	1059	9 2	14
22	57°6	6 52	67°1	52°0	21 40	15°1	507	5 10	559	460	12 6	99	1069	16 58	1086	1038	7 14	48
23	56°7	0 44	60°1	52°9	22 23	7°2	520	22 26	543	505	13 53	38	1064	17 56	1071	1056	13 4	15
24 *	57°0	14 16	59°9	54°3	21 15	5°6	524	5 40	534	511	9 4	23	1065	18 55	1072	1060	0 35	12
25	56°9	14 18	59°0	55°0	5 12	4°0	530	13 21	537	518	10 18	19	1063	12 40	1069	1059	9 20	10
26 *	57°3	13 34	59°6	55°4	8 13	4°2	536	18 20	545	521	11 7	24	1059	16 30	1063	1057	24 0	6
27	57°0	13 19	59°7	53°7	23 0	6°0	536	18 0	548	519	23 14	29	1060	9 35	1065	1057	7 15	

TABLE V. - MEAN DIURNAL INEQUALITIES OF THE MAGNETIC ELEMENTS - DECLINATION, INCLINATION AND HORIZONTAL INTENSITY

"All" Days.

DECLINATION WEST

Table with columns: Month and Season, 1938., Universal Time. Hour commencing - (0-23). Rows include monthly data (Jan-Dec), Year, Winter, Equinox, and Summer.

INCLINATION

Table with columns: Month and Season, 1938., Universal Time. Hour commencing - (0-23). Rows include monthly data (Jan-Dec), Year, Winter, Equinox, and Summer.

HORIZONTAL INTENSITY

Table with columns: Month and Season, 1938., Universal Time. Hour commencing - (0-23). Rows include monthly data (Jan-Dec), Year, Winter, Equinox, and Summer.

TABLE V. - continued. - MEAN DIURNAL INEQUALITIES OF GEOGRAPHIC COMPONENTS OF MAGNETIC INTENSITY

"All" Days.

NORTH COMPONENT.																								
Month and Season, 1938.	Universal Time. Hour commencing -																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Jan.	+ 1.7	- 1.6	- 1.7	+ 0.2	+ 4.4	+ 7.6	+10.5	+ 7.2	- 0.3	- 5.8	- 7.9	-10.2	- 9.6	- 8.9	- 7.6	- 4.8	- 2.0	- 0.9	+ 4.3	+ 4.6	+ 1.3	+ 4.3	+ 9.0	+ 8.3
Feb.	+ 5.1	+ 6.0	+ 7.3	+ 9.8	+10.9	+ 9.8	+13.3	+12.1	+ 7.8	- 1.1	- 8.7	-16.0	-19.9	-20.4	-15.8	-10.1	- 8.1	- 6.3	- 1.0	+ 0.8	+ 4.7	+ 7.5	+ 4.6	+ 6.5
March	+11.7	+ 7.1	+ 9.4	+ 7.0	+ 9.0	+10.6	+10.5	+ 6.5	- 0.8	-12.4	-19.5	-25.4	-25.9	-18.6	-13.9	- 8.2	- 3.7	+ 2.8	+ 3.6	+ 7.4	+11.5	+ 8.9	+10.9	+10.7
April	+ 8.6	+ 8.3	+ 6.1	+ 5.8	+ 8.4	+ 9.3	+ 7.7	+ 3.3	- 7.2	-19.5	-31.8	-35.2	-33.2	-28.9	-18.0	- 1.3	+ 9.4	+12.4	+14.9	+18.1	+17.3	+18.9	+13.1	+11.9
May	+ 6.2	+ 5.9	+ 5.2	+ 5.1	+ 5.5	+ 6.4	+ 1.1	- 8.4	-14.0	-18.2	-23.8	-25.6	-24.6	-19.8	-11.6	- 0.0	+ 9.7	+16.5	+15.6	+16.4	+15.3	+14.7	+13.2	+10.8
June	+ 6.9	+ 7.8	+ 6.4	+ 6.2	+ 7.8	+ 6.9	- 0.5	- 9.5	-18.5	-25.6	-26.5	-22.3	-19.4	-17.1	-10.9	- 4.1	+ 6.1	+14.1	+22.2	+21.2	+17.4	+12.3	+10.0	+ 8.6
July	+ 8.4	+ 8.3	+ 8.7	+10.2	+11.1	+ 9.5	+ 1.6	- 7.9	-18.4	-28.2	-30.2	-29.2	-25.3	-24.3	-16.4	+ 1.0	+11.4	+18.2	+21.5	+21.5	+16.5	+11.9	+ 9.3	+ 7.6
Aug.	+ 6.8	+ 9.1	+10.4	+11.9	+12.2	+10.9	+ 4.3	- 9.2	-21.0	-32.0	-35.5	-32.4	-28.6	-19.0	- 9.1	- 2.1	+ 8.1	+14.5	+19.6	+20.7	+17.6	+16.1	+15.6	+10.1
Sept.	+14.2	+10.8	+12.5	+13.0	+12.7	+12.0	+ 9.1	+ 5.1	- 8.9	-19.2	-27.5	-29.5	-28.2	-22.3	-17.3	- 9.0	- 4.0	+ 0.8	+ 8.3	+10.5	+14.6	+14.0	+15.0	+12.9
Oct.	+11.0	+10.4	+11.1	+12.5	+14.1	+16.8	+13.9	+ 4.9	- 5.8	-19.1	-29.2	-33.8	-30.1	-21.4	-13.6	-10.3	- 4.7	+ 1.6	+ 6.4	+ 8.7	+12.8	+15.7	+16.0	+12.8
Nov.	+ 7.9	+ 8.6	+ 8.1	+ 9.3	+12.4	+14.0	+12.5	+10.9	+ 4.5	- 6.4	-18.3	-23.5	-20.7	-15.1	-15.2	-12.1	- 6.9	- 2.1	+ 1.7	+ 4.5	+ 7.2	+ 7.3	+ 6.1	+ 8.0
Dec.	+ 1.7	+ 1.4	+ 3.8	+ 5.9	+ 9.2	+11.8	+11.2	+ 8.7	+ 4.0	+ 0.6	- 3.2	- 9.0	- 9.2	- 8.0	- 5.8	- 5.6	- 2.6	- 4.5	- 6.1	- 6.1	- 2.6	+ 0.8	+ 1.4	+ 1.6
Year	+ 7.5	+ 6.7	+ 7.3	+ 8.1	+ 9.8	+10.5	+ 7.9	+ 2.0	- 6.6	-15.4	-21.8	-24.3	-22.7	-18.5	-12.6	- 5.6	+ 1.0	+ 5.6	+ 9.2	+10.7	+11.1	+10.9	+10.3	+ 9.2
Winter	+ 4.1	+ 3.1	+ 4.4	+ 6.3	+ 9.2	+10.8	+11.9	+ 9.7	+ 4.0	- 3.2	- 9.2	-14.7	-14.9	-13.1	-11.1	- 8.2	- 5.0	- 3.5	- 0.3	+ 1.0	+ 2.7	+ 5.0	+ 5.3	+ 6.1
Equinox	+11.4	+ 9.2	+ 9.8	+ 9.6	+11.1	+12.2	+10.3	+ 5.0	- 5.7	-17.6	-27.0	-31.0	-29.4	-22.3	-15.2	- 7.2	- 0.8	+ 4.4	+ 8.3	+11.2	+14.1	+13.9	+13.6	+12.1
Summer	+ 7.0	+ 7.6	+ 7.7	+ 8.4	+ 9.2	+ 8.4	+ 1.6	- 8.6	-18.0	-25.5	-29.0	-27.4	-23.9	-20.1	-12.0	- 1.3	+ 8.6	+15.8	+19.7	+20.0	+16.7	+13.8	+12.0	+ 9.3

WEST COMPONENT.

Jan.	- 9.8	- 5.4	- 6.0	- 4.2	- 0.7	+ 2.0	- 0.1	- 2.7	- 6.2	- 5.4	- 0.8	+ 5.8	+12.3	+20.7	+18.5	+11.9	+10.7	+ 8.6	+ 3.9	- 3.4	-10.4	-16.5	-12.4	- 9.8
Feb.	- 9.2	- 9.5	- 5.8	- 5.9	- 6.3	- 2.5	- 1.7	- 2.6	- 9.2	-13.3	- 7.3	+ 4.9	+17.1	+24.1	+23.0	+20.2	+13.0	+ 5.1	+ 2.1	- 0.1	- 4.7	- 9.3	-11.6	-10.3
March	-16.3	-14.5	-12.7	-11.1	- 8.9	- 9.4	- 6.7	-13.6	-22.4	-22.8	- 8.4	+10.6	+26.9	+36.4	+34.3	+26.5	+18.0	+ 9.7	+ 5.0	+ 0.2	- 1.7	- 4.0	- 6.1	- 8.0
April	- 5.9	- 6.3	- 9.1	- 9.3	-12.2	-14.1	-20.3	-31.0	-36.7	-28.2	-10.6	+13.3	+34.0	+41.5	+37.4	+29.3	+17.7	+ 8.3	+ 4.2	+ 0.9	+ 1.3	- 0.1	- 0.5	- 3.6
May	- 6.3	- 8.7	- 9.0	-11.1	-13.0	-17.6	-26.4	-32.1	-30.5	-21.3	- 4.4	+12.7	+28.6	+34.8	+31.6	+25.8	+19.4	+11.8	+ 7.0	+ 3.0	+ 3.6	+ 3.3	+ 1.5	- 2.7
June	- 1.8	- 4.0	- 7.1	- 9.9	-15.2	-25.1	-32.6	-35.4	-31.1	-21.7	- 5.4	+12.8	+25.7	+31.9	+33.2	+26.7	+20.6	+14.6	+10.5	+ 4.3	+ 3.4	+ 3.0	+ 1.6	+ 0.4
July	- 2.7	- 4.3	- 3.6	- 6.2	-12.0	-20.5	-31.3	-34.6	-34.3	-24.7	- 9.1	+10.2	+26.5	+34.2	+34.0	+31.7	+24.6	+13.6	+ 6.0	+ 3.3	+ 2.0	+ 0.3	- 0.8	- 3.0
Aug.	- 6.2	- 7.4	- 9.2	-10.1	-16.4	-25.4	-32.0	-35.7	-30.7	-17.9	+ 2.1	+21.0	+36.3	+40.2	+38.9	+28.6	+13.3	+ 4.6	+ 4.2	+ 2.2	+ 3.6	+ 4.7	+ 1.4	- 5.9
Sept.	- 8.5	-10.9	- 8.5	-11.2	- 7.1	- 7.8	-12.9	-21.2	-26.0	-18.3	- 5.6	+13.2	+28.1	+34.0	+30.8	+25.7	+17.7	+10.6	+ 6.5	+ 1.0	- 5.9	- 6.2	- 7.2	-11.1
Oct.	-11.5	- 5.2	- 3.6	- 4.8	- 5.1	- 5.6	- 7.2	-16.4	-21.7	-15.0	+ 0.7	+17.9	+28.8	+30.9	+27.3	+18.2	+ 6.9	+ 5.9	+ 3.2	- 3.9	- 9.2	-10.1	- 9.3	-12.0
Nov.	- 9.7	- 6.2	- 2.3	- 2.4	- 2.6	- 3.5	- 3.1	- 3.6	-10.4	-11.6	- 3.0	+10.9	+19.5	+21.7	+18.7	+12.1	+ 8.7	+ 7.4	+ 4.0	- 1.8	- 8.6	-11.9	-11.9	-10.9
Dec.	-11.6	- 8.0	- 4.7	- 3.6	- 1.1	- 0.2	+ 1.2	- 1.6	- 4.0	- 2.5	+ 1.9	+ 7.9	+13.4	+17.4	+14.5	+13.7	+12.1	+ 9.6	+ 5.6	- 4.6	-13.6	-12.9	-13.6	-15.3
Year	- 8.3	- 7.5	- 6.8	- 7.5	- 8.4	-10.8	-14.4	-19.2	-21.9	-16.9	- 4.2	+11.8	+24.8	+30.7	+28.4	+22.4	+15.1	+ 9.2	+ 5.2	+ 0.3	- 3.3	- 5.0	- 6.0	- 7.7
Winter	-10.1	- 7.3	- 4.7	- 4.0	- 2.7	- 1.1	- 0.9	- 2.6	- 7.5	- 8.2	- 2.3	+ 7.4	+15.6	+21.0	+18.7	+14.5	+11.1	+ 7.7	+ 3.9	- 2.5	- 9.3	-12.7	-12.4	-11.6
Equinox	-10.6	- 9.2	- 8.5	- 9.1	- 8.3	- 9.2	-11.8	-20.6	-26.7	-21.1	- 6.0	+13.8	+29.5	+35.7	+32.5	+24.9	+14.6	+ 8.6	+ 4.7	- 0.5	- 3.9	- 5.1	- 5.6	- 8.7
Summer	- 4.3	- 6.1	- 7.2	- 9.3	-14.2	-22.2	-30.6	-34.5	-31.7	-21.4	- 4.2	+14.2	+29.3	+35.3	+33.9	+27.7	+19.5	+11.2	+ 6.9	+ 3.7	+ 3.2	+ 2.8	+ 0.2	- 2.8

VERTICAL COMPONENT

Jan.	- 3.0	- 4.6	- 5.5	- 7.0	- 8.0	- 7.3	- 5.8	- 5.4	- 5.6	- 6.5	- 5.7	- 6.9	- 6.7	- 1.3	+ 7.2	+10.4	+13.3	+11.0	+10.8	+ 8.8	+ 8.3	+ 6.5	+ 3.0	- 0.8
Feb.	+ 0.5	- 0.0	- 1.8	- 4.0	- 5.1	- 5.2	- 7.6	- 7.4	- 5.2	- 6.3	- 9.4	-11.7	- 9.3	- 5.7	+ 1.1	+ 6.5	+10.3	+13.3	+13.6	+11.4	+ 9.5	+ 6.5	+ 4.6	+ 2.3
March	- 0.9	- 2.3	- 2.8	- 2.3	- 1.3	- 1.2	- 2.4	- 0.8	- 1.7	- 6.6	-12.6	-17.2	-16.3	-10.1	- 1.4	+ 6.8	+11.8	+12.8	+13.2	+12.2	+ 9.5	+ 7.4	+ 4.9	+ 1.6
April	+ 1.3	+ 0.3	- 0.0	+ 0.6	+ 0.4	+ 0.9	+ 2.8	+ 2.7	- 1.3	- 9.9	-18.3	-23.0	-21.6	-12.3	- 0.9	+ 7.6	+13.0	+14.0	+13.8	+12.3	+ 9.3	+ 6.5	+ 2.6	+ 0.4
May	- 4.7	- 0.5	+ 0.5	+ 0.6	+ 1.6	+ 0.8	- 1.4	- 3.1	- 6.3	-11.4	-17.7	-20.8	-18.7	-10.5	+ 1.1	+ 9.7	+15.4	+19.4	+17.7	+15.5	+10.6	+ 5.1	+ 1.2	- 5.2
June	+ 1.8	+ 1.4	+ 0.6	+ 1.4	+ 2.7	+ 2.7	+ 0.3	- 1.8	- 5.3	-10.6	-15.4	-18.4	-17.4	-12.2	- 4.2	+ 2.8	+ 8.1	+11.1	+13.4	+13.2	+10.6	+ 6.5	+ 4.5	+ 3.5
July	- 2.2	- 2.9	- 2.9	- 1.0	+ 1.6	+ 0.3	- 0.8	- 3.3	- 6.5	-10.7	-14.1	-18.4	-17.5	-12.3	- 1.4	+ 8.8	+14.4	+19.1	+19.1	+15.0	+10.9	+ 5.2	+ 1.1	- 2.4
Aug.	- 3.1	- 2.5	- 1.8	- 2.0	- 1.3	+ 1.2	+ 2.5	+ 1.1	- 2.3	- 9.2	-15.0	-18.1	-16.5	- 9.1	+ 1.4	+ 8.5	+14.0	+16.7	+13.2	+10.5	+ 8.4	+ 4.9	+ 0.7	- 2.9
Sept.	- 3.8	- 5.0	- 7.5	- 8.8	- 5.2	- 2.4	+ 1.1	+ 1.0	- 1.3	- 5.8	-10.4	-12.8	-12.1	- 5.6	+ 2.4	+ 9.6	+13.1	+13.9	+13.2	+13.2	+10.0	+ 5.4	+ 0.9	- 3.2
Oct.	- 6.5	- 6.3	- 6.9	- 7.2	- 8.0	- 7.3	- 4.2	- 1.7	- 1.7	- 5.9	- 9.6	- 9.6	- 5.2	- 0.4	+ 7.2	+13.0	+16.0	+13.6	+13.8	+11.6	+ 7.8	+ 3.9	- 1.1	- 4.7
Nov.	- 3.1	- 3.2	- 4.1	- 4.6	- 4.8	- 3.9	- 4.2	- 3.6	- 4.0	- 5.5	- 8.2	- 7.4	- 4.6	- 0.5	+ 3.6	+ 7.6	+ 9.3	+ 9.2	+ 9.1	+ 8.1	+ 6.8	+ 5.2	+ 2.3	- 0.2
Dec.	- 1.6	- 2.9	- 3.8	- 4.8	- 5.5	- 5.4	- 5.7	- 6.0	- 6.1	- 5.9	- 6.1	- 6.6	- 5.7	- 3.6	+ 0.6	+ 4.1	+ 6.9	+ 8.7	+11.1	+12.1	+12.7	+ 8.4	+ 4.6	+ 1.2
Year	- 2.1	- 2.4	- 3.0	- 3.3	- 2.7	- 2.2	- 2.1	- 2.4	- 3.9	- 7.9	-11.9	-14.2	-12.7	- 7.0	+ 1.4	+ 8.0	+12.1	+13.6	+13.5	+12.0	+ 9.6	+ 6.0	+ 2.4	- 0.9
Winter	- 1.9	- 2.7	- 3.8	- 5.2	- 5.9	- 5.5	- 5.8	- 5.6	- 5.2	- 6.1	- 7.4	- 8.2	- 6.6	- 2.8	+ 3.2	+ 7.2	+10.0	+10.6	+11.2	+10.1	+ 9.3	+ 6.7	+ 3.6	+ 0.6
Equinox	- 2.5	- 3.3	- 4.3	- 4.4	- 3.5	- 2.5	- 0.7	+ 0.3	- 1.5	- 7.1	-12.7	-15.7	-13.9	- 7.1	+ 1.8	+ 9.3	+13.5	+13.6	+13.5	+12.3	+ 9.2	+ 5.8	+ 1.6	- 1.5
Summer	- 2.1	- 1.1	- 0.9	- 0.3	+ 1.2	+ 1.3	+ 0.2	- 1.6	- 5.1	-10.5	-15.6	-18.9	-17.5	-11.0	- 0.6	+ 7.5	+13.0	+16.6	+15.9	+13.6	+10.2	+ 5.4	+ 1.9	- 1.6



TABLE VI. - MEAN DIURNAL INEQUALITIES OF THE MAGNETIC ELEMENTS -  
DECLINATION, INCLINATION AND HORIZONTAL INTENSITY.

International Quiet Days																								
DECLINATION WEST																								
Month and Season, 1938.	Universal Time. Hour commencing -																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Jan.	-1.35	-1.03	-0.65	-0.75	-0.49	-0.59	-0.81	-1.31	-1.59	-0.69	+0.17	+1.21	+2.69	<b>+3.91</b>	+2.77	+1.67	+1.07	+0.99	+0.57	-0.09	-1.13	<b>-1.69</b>	-1.49	-1.17
Feb.	-0.82	-0.40	-0.24	-0.48	-0.80	-1.14	-1.58	-1.88	-3.10	<b>-3.60</b>	-2.30	+0.40	+3.14	<b>+4.22</b>	+3.92	+2.76	+1.66	+1.04	+0.78	+0.80	+0.38	-0.28	-1.14	-1.14
March	-1.14	-1.16	-1.10	-1.40	-1.60	-2.12	-2.14	-3.50	-5.20	<b>-5.46</b>	-2.50	+2.12	+5.42	<b>+6.90</b>	+6.52	+4.52	+2.24	+0.98	+0.60	+0.04	-0.14	-0.44	-0.58	-0.92
April	-0.66	-0.64	-1.14	-1.26	-1.96	-3.02	-4.70	-6.22	<b>-6.94</b>	-4.62	-0.80	+3.10	+6.44	<b>+7.42</b>	+6.18	+4.34	+2.50	+1.40	+0.52	+0.28	+0.06	+0.22	+0.04	-0.18
May	-0.27	-0.62	-0.84	-1.09	-2.02	-3.12	-4.87	<b>-5.94</b>	-5.17	-3.09	-0.04	+3.11	+5.21	+5.16	+4.21	+3.23	+2.23	+1.56	+1.06	+0.78	+0.51	-0.02	+0.08	-0.04
June	-0.54	-0.52	-0.74	-1.44	-2.94	-4.56	-5.74	<b>-6.36</b>	-5.24	-2.88	+0.36	+3.62	+5.68	<b>+6.24</b>	+5.84	+4.52	+2.92	+1.60	+0.48	-0.20	-0.18	-0.02	-0.02	+0.04
July	-0.39	-0.91	-1.57	-1.83	-3.45	-5.15	<b>-6.67</b>	-6.33	-5.21	-2.27	+0.97	+4.63	+6.93	<b>+7.73</b>	+6.69	+4.81	+2.39	+0.31	-0.49	-0.05	-0.03	+0.07	-0.03	-0.17
Aug.	-1.96	-2.04	-1.90	-2.34	-2.66	-3.68	-4.40	<b>-5.02</b>	-4.46	-2.16	+1.46	+4.48	+6.54	<b>+6.96</b>	+5.98	+4.12	+2.00	+0.36	-0.10	+0.02	+0.04	-0.04	-0.40	-0.74
Sept.	-1.65	-1.65	-1.55	-1.75	-2.19	-2.69	-3.99	<b>-5.21</b>	-5.11	-3.73	-0.59	+3.25	+5.65	<b>+7.01</b>	+6.27	+4.25	+2.53	+1.25	+0.95	+0.67	+0.23	-0.23	-0.63	-1.21
Oct.	-1.10	-1.00	-1.16	-1.06	-1.10	-1.40	-2.00	-3.62	<b>-4.66</b>	-3.80	-0.78	+2.64	+4.92	<b>+5.28</b>	+4.94	+3.24	+2.10	+1.36	+0.62	+0.44	-0.24	-1.04	-1.14	-1.58
Nov.	-1.50	-1.22	-0.60	-0.50	-0.68	-0.96	-1.24	-1.60	<b>-2.44</b>	-2.36	-0.66	+1.66	+3.46	<b>+3.74</b>	+2.82	+1.88	+1.60	+0.82	+0.56	+0.14	-0.32	-1.02	-0.98	-0.88
Dec.	-1.07	-0.71	-0.41	-0.21	-0.35	-0.57	-0.91	-1.29	<b>-1.57</b>	-1.01	+0.17	+1.41	+2.11	<b>+2.41</b>	+1.93	+1.43	+1.05	+0.75	+0.53	+0.03	-0.75	-1.01	-0.93	-1.15
Year	-1.04	-1.01	-0.99	-1.18	-1.69	-2.42	-3.25	-4.02	<b>-4.22</b>	-3.02	-0.38	+2.65	+4.67	<b>+5.58</b>	+4.64	+3.40	+2.02	+1.04	+0.52	+0.24	-0.13	-0.46	-0.62	-0.76
Winter	-1.19	-0.84	-0.48	-0.49	-0.58	-0.62	-1.14	-1.52	<b>-2.18</b>	-2.02	-0.66	+1.22	+2.65	<b>+3.57</b>	+2.66	+1.94	+1.35	+0.90	+0.61	+0.22	-0.46	-1.00	-1.14	-1.09
Equinox	-1.14	-1.16	-1.24	-1.37	-1.71	-2.31	-3.21	-4.64	<b>-5.48</b>	-4.45	-1.17	+2.78	+5.66	<b>+6.65</b>	+5.98	+4.09	+2.33	+1.25	+0.72	+0.36	-0.02	-0.37	-0.63	-0.97
Summer	-0.79	-1.02	-1.26	-1.68	-2.77	-4.13	-5.42	<b>-5.91</b>	-5.02	-2.60	+0.69	+3.96	+6.09	<b>+6.52</b>	+5.68	+4.17	+2.39	+0.96	+0.24	+0.14	+0.09	-0.00	-0.09	-0.23
INCLINATION																								
Jan.	+0.33	+0.36	+0.12	+0.16	-0.15	-0.37	-0.45	-0.48	-0.33	+0.20	<b>+0.54</b>	+0.35	+0.15	+0.18	+0.31	+0.05	-0.05	-0.39	<b>-0.52</b>	-0.13	+0.22	+0.16	-0.12	-0.19
Feb.	-0.11	-0.01	-0.16	-0.18	-0.26	-0.36	-0.47	-0.39	-0.06	+0.46	+0.69	<b>+1.01</b>	+0.88	+0.68	+0.42	+0.37	+0.15	-0.08	-0.34	-0.37	-0.46	<b>-0.49</b>	-0.48	-0.48
March	-0.28	-0.17	-0.20	-0.27	-0.30	-0.41	-0.50	-0.30	+0.34	+1.09	+1.52	<b>+1.56</b>	+1.11	+0.77	+0.43	+0.24	-0.06	-0.32	-0.51	-0.76	<b>-0.78</b>	<b>-0.78</b>	-0.76	-0.65
April	-0.35	-0.25	-0.19	-0.21	-0.22	-0.15	+0.12	+0.53	+0.92	+1.23	<b>+1.45</b>	+1.15	+0.82	+0.53	+0.22	-0.31	-0.40	-0.60	-0.73	<b>-0.86</b>	-0.79	-0.70	-0.58	-0.63
May	+0.15	+0.27	+0.19	+0.23	+0.15	+0.13	+0.19	+0.38	+0.51	+0.62	<b>+0.70</b>	+0.63	+0.28	+0.43	+0.19	-0.24	-0.46	-0.84	-0.73	<b>-0.85</b>	-0.68	-0.69	-0.37	-0.28
June	-0.08	-0.15	-0.09	-0.15	-0.17	-0.03	+0.30	+0.63	+1.37	<b>+1.53</b>	+1.31	+0.53	+0.14	+0.11	+0.03	-0.25	-0.49	-0.70	-0.91	<b>-0.99</b>	-0.78	-0.51	-0.42	-0.43
July	-0.42	-0.21	-0.18	-0.33	-0.25	+0.08	+0.57	+1.18	<b>+1.54</b>	+1.45	+1.38	+0.82	+0.28	-0.13	-0.10	-0.48	-0.58	-0.39	-0.54	<b>-0.84</b>	-0.61	-0.75	-0.61	-0.54
Aug.	-0.20	-0.18	-0.24	-0.26	-0.30	-0.08	+0.38	+0.95	+1.51	+1.96	<b>+2.00</b>	+1.33	+0.55	+0.12	-0.03	-0.22	-0.46	-0.66	-0.99	<b>-1.24</b>	-1.17	-1.04	-0.93	-0.80
Sept.	-0.37	-0.24	-0.17	-0.25	-0.21	-0.23	-0.09	+0.24	+0.79	+1.12	<b>+1.45</b>	+1.24	+0.97	+0.53	+0.23	+0.01	-0.11	-0.42	-0.53	-0.75	-0.72	-0.76	-0.67	<b>-0.93</b>
Oct.	-0.45	-0.48	-0.50	-0.51	-0.60	-0.71	-0.65	-0.09	+0.62	+1.18	+1.36	<b>+1.53</b>	+1.38	+0.81	+0.51	+0.44	+0.15	-0.11	-0.35	-0.69	-0.68	-0.67	<b>-0.90</b>	-0.69
Nov.	-0.23	-0.18	-0.19	-0.28	-0.53	-0.69	<b>-0.75</b>	-0.40	+0.17	+0.66	+1.27	<b>+1.40</b>	+1.18	+0.91	+0.72	+0.45	+0.03	-0.26	-0.47	-0.72	-0.69	-0.59	-0.59	-0.51
Dec.	+0.34	+0.35	+0.23	0.00	-0.17	-0.30	-0.29	-0.16	+0.03	+0.25	+0.47	<b>+0.55</b>	+0.40	+0.13	+0.03	-0.01	-0.09	-0.30	<b>-0.42</b>	-0.40	-0.25	-0.16	-0.08	-0.08
Year	-0.14	-0.07	-0.12	-0.17	-0.25	-0.26	-0.14	+0.19	+0.62	+1.00	<b>+1.18</b>	+1.01	+0.68	+0.42	+0.25	+0.00	-0.20	-0.42	-0.59	<b>-0.72</b>	-0.63	-0.58	-0.56	-0.52
Winter	+0.08	+0.13	0.00	-0.08	-0.28	-0.43	<b>-0.49</b>	-0.36	-0.05	+0.44	+0.74	<b>+0.83</b>	+0.65	+0.48	+0.37	+0.22	+0.01	-0.26	-0.44	-0.41	-0.30	-0.25	-0.32	-0.32
Equinox	-0.36	-0.29	-0.27	-0.31	-0.33	-0.38	-0.28	+0.10	+0.67	+1.18	<b>+1.45</b>	+1.37	+1.07	+0.66	+0.35	+0.10	-0.11	-0.36	-0.53	<b>-0.77</b>	-0.74	-0.73	-0.77	-0.73
Summer	-0.14	-0.07	-0.08	-0.13	-0.14	+0.03	+0.36	+0.64	+1.23	<b>+1.39</b>	+1.35	+0.63	+0.31	+0.13	+0.02	-0.30	-0.50	-0.65	-0.79	<b>-0.98</b>	-0.66	-0.75	-0.68	-0.51
HORIZONTAL INTENSITY																								
Jan.	- 5.5	- 6.3	- 2.5	- 3.3	+ 1.3	+ 4.7	+ 6.5	+ 6.7	+ 3.9	- 4.9	- 9.3	- 7.3	- 4.5	- 3.5	- 4.5	- 0.1	+ 1.9	+ 7.3	+ 9.5	+ 3.7	- 0.9	+ 0.1	+ 3.5	+ 3.7
Feb.	+ 2.7	+ 1.7	+ 3.7	+ 4.1	+ 5.5	+ 7.1	+ 7.7	+ 6.3	+ 1.9	- 7.7	- 13.9	- 20.7	- 18.9	- 14.7	- 8.3	- 4.9	- 0.9	+ 2.9	+ 6.7	+ 6.7	+ 8.1	+ 8.7	+ 8.1	+ 7.9
March	+ 6.3	+ 5.1	+ 5.7	+ 6.7	+ 6.9	+ 8.3	+ 9.5	+ 7.3	- 3.1	- 17.3	- 27.3	- 31.1	- 25.5	- 18.5	- 10.3	- 3.1	+ 3.1	+ 6.5	+ 9.1	+ 12.9	+ 13.1	+ 13.1	+ 12.5	+ 10.5
April	+ 7.4	+ 6.4	+ 5.6	+ 5.6	+ 5.8	+ 4.6	+ 1.0	- 5.4	- 13.2	- 22.8	- 30.4	- 27.4	- 21.6	- 13.4	- 4.6	+ 5.8	+ 8.2	+ 11.8	+ 13.6	+ 15.6	+ 14.0	+ 12.2	+ 10.0	+ 10.6
May	+ 0.9	- 0.6	- 0.6	+ 0.2	+ 2.2	+ 2.2	- 0.1	- 4.6	- 9.1	- 13.8	- 17.3	- 18.6	- 13.6	- 13.6	- 6.8	+ 2.4	+ 7.7	+ 14.7	+ 13.9	+ 15.7	+ 12.7	+ 12.7	+ 7.7	+ 5.9
June	+ 2.5	+ 3.5	+ 2.5	+ 3.9	+ 4.9	+ 2.9	- 3.3	- 11.9	- 21.3	- 26.5	- 26.3	- 18.3	- 10.3	- 7.3	- 1.9	+ 4.9	+ 10.1	+ 13.3	+ 17.3	+ 18.5	+ 15.1	+ 9.9	+ 7.7	+ 7.7
July	+ 7.3	+ 4.1	+ 3.9	+ 6.7	+ 6.5	+ 1.1	- 7.9	- 17.3	- 24.9	- 25.9	- 26.9	- 20.3	- 11.5	- 3.5	+ 1.1	+ 9.9	+ 13.5	+ 11.7	+ 12.9	+ 15.7	+ 14.3	+ 11.9	+ 9.1	+ 7.7
Aug.	+ 3.6	+ 3.4	+ 4.6	+ 5.0	+ 6.6	+ 3.4	- 3.2	- 12.6	- 21.6	- 30.4	- 33.4	- 25.6	- 14.6	- 6.0	- 0.4	+ 4.4	+ 9.2	+ 12.8	+ 16.4	+ 20.0	+ 18.6	+ 15.8	+ 13.4	+ 11.2
Sept.	+ 7.1	+ 4.9	+ 4.3	+ 5.5	+ 5.1	+ 5.5	+ 3.5	- 1.9	- 11.7	- 19.3	- 27.1	- 25.5	- 21.3	- 12.5	- 5.5	- 0.3	+ 2.5	+ 8.1	+ 10.1	+ 13.7	+ 13.1	+ 13.3	+ 14.3	+ 14.5
Oct.	+ 7.0	+ 7.6	+ 7.8	+ 8.0	+ 9.4	+ 11.6	+ 10.8	+ 3.2	- 8.0	- 19.0	- 24.4	- 28.0	- 25.2	- 15.6	- 9.0	- 5.8	- 0.2	+ 3.4	+ 7.4	+ 12.0	+ 11.6	+ 11.6	+ 14.2	+ 10.4
Nov.	+ 2.5	+ 1.9	+ 2.1	+ 3.7	+ 7.5	+ 10.1	+ 10.5	+ 6.1	- 2.5	- 13.7	- 21.7	- 23.9	- 19.5	- 14.3	- 9.9	- 4.9	+ 1.5	+ 5.7	+ 8.9	+ 12.1	+ 11.5	+ 9.9	+ 8.9	+ 7.1
Dec.	- 5.2	- 5.4	- 3.4	- 0.2	+ 2.4	+ 4.4	+ 4.4	+ 2.4	- 0.8	- 4.2	- 8.4	- 9.4	- 7.4	- 3.2	- 0.6	+ 0.6	+ 2.6	+ 5.8	+ 7.4	+ 7.0	+ 4.6	+ 3.0	+ 1.4	+ 0.6
Year	+ 3.0	+ 2.2	+ 2.8	+ 3.6	+ 5.3	+ 5.5	+ 3.3	- 1.6	- 9.2	- 17.1	- 22.2	- 21.1	- 16.2	- 10.5	- 5.1	+ 0.7	+ 5.0	+ 8.7	+ 11.1	+ 12.8	+ 11.3	+ 10.2	+ 9.2	+ 8.2
Winter	- 1.4	- 2.0	- 0.0	+ 1.1	+ 4.2	+ 6.6	+ 7.3	+ 5.4	+ 0.6	- 7.6	- 13.3	- 15.2	- 12.6	- 8.9	- 5.8	- 2.3	+ 1.3	+ 5.4	+ 8.1	+ 7.4	+ 5.9	+ 5.4	+ 5.5	+ 4.8
Equinox	+ 7.0	+ 6.0	+ 5.9	+ 6.5	+ 6.8	+ 7.6	+ 6.2	+ 0.6	- 9.0	- 19.6	- 27.3	- 28.0	- 23.4	- 15.0	- 7.4	- 0.7	+ 3.4	+ 7.5	+ 10.1	+ 13.6	+ 13.0	+ 12.6	+ 12.6	+ 11.5
Summer	+ 3.6	+ 2.6	+ 2.7	+ 4.0	+ 5.1	+ 2.4	- 3.6	- 11.7	- 19.2	- 24.2	- 26.0	- 20.2	- 12.6	- 7.6	- 2.0	+ 5.4	+ 10.1	+ 13.1	+ 15.1	+ 17.5	+ 15.2	+ 12.7	+ 9.5	+ 8.1

TABLE VI. - continued. - MEAN DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC INTENSITY.

International Quiet Days

NORTH COMPONENT

Month and Season, 1938.	Universal Time. Hour commencing -																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Jan.	-4.0	-5.1	-1.8	-2.5	+1.8	+5.2	+7.2	+7.9	+5.5	-3.9	-9.3	-8.4	-7.2	-7.5	-7.3	-1.8	+0.8	+8.2	<b>8.7</b>	+3.7	+0.3	+1.8	+5.0	+4.8
Feb.	+3.5	+2.1	+3.9	+4.5	+6.2	+8.1	+9.2	+8.1	+5.1	-3.7	-11.3	-20.7	<b>-21.8</b>	-18.8	-12.2	-7.7	-2.6	+1.8	+5.8	+5.8	+7.6	+8.8	+9.1	+8.9
March	+7.4	+6.2	+6.7	+8.0	+8.4	+10.3	+11.5	+10.8	+2.3	-11.4	-24.2	<b>-32.7</b>	-30.6	-25.3	-16.8	-7.7	+0.7	+5.4	+8.3	+12.8	+13.0	<b>+13.3</b>	+12.9	+11.3
April	+8.0	+7.1	+6.7	+7.0	+7.7	+7.6	+5.8	+1.1	-5.8	-17.4	-29.0	<b>-30.1</b>	-27.8	-20.8	-10.9	+1.2	+5.5	+10.2	+12.8	<b>+15.0</b>	+13.7	+11.8	+9.8	+10.6
May	+1.2	+0.1	+0.3	+1.3	+4.2	+5.4	+4.9	+1.4	-3.8	-10.4	-17.0	<b>-21.5</b>	-18.7	-18.7	-11.0	-1.0	+5.3	+12.8	+12.6	<b>+14.6</b>	+12.0	+12.5	+7.5	+5.8
June	+3.0	+4.0	+3.2	+5.3	+7.8	+7.5	+2.7	-5.2	-15.5	-23.1	<b>-25.5</b>	-19.7	-16.0	-13.6	-7.9	+0.2	+6.9	+11.4	+16.5	<b>+18.4</b>	+15.0	+9.7	+7.6	+7.5
July	+7.6	+5.0	+5.4	+8.5	+9.9	+6.4	-0.9	-10.5	-19.1	-23.1	<b>-27.4</b>	-24.7	-18.4	-11.4	-5.6	+4.8	+10.8	+11.2	+13.2	<b>+15.5</b>	+14.1	+11.6	+9.0	+7.7
Aug.	+5.6	+5.4	+6.5	+7.3	+9.2	+7.1	+1.4	-7.2	-16.8	-27.6	<b>-34.3</b>	-29.8	-21.3	-13.0	-6.5	+0.1	+7.0	+12.2	+16.2	<b>+19.6</b>	+18.2	+15.6	+13.6	+11.8
Sept.	+8.7	+6.5	+5.8	+7.2	+7.3	+8.2	+7.5	+3.5	-6.2	-15.1	-26.0	<b>-28.4</b>	-26.9	-19.5	-11.9	-4.7	-0.1	+6.7	+8.9	+12.8	+12.6	+13.3	+14.9	<b>+15.5</b>
Oct.	+8.0	+8.5	+8.8	+8.9	+10.4	+12.8	+12.7	+6.9	-3.1	-14.7	-23.2	<b>-30.2</b>	-29.8	-20.7	-13.9	-9.0	-2.4	+1.9	+6.4	+11.3	+11.8	+12.5	<b>+15.1</b>	+11.8
Nov.	+4.0	+3.1	+2.7	+4.1	+8.1	+10.9	+11.6	+7.6	+0.1	-11.0	-20.6	<b>-24.8</b>	-22.7	-17.9	-12.6	-6.7	-0.2	+4.8	+8.2	<b>+11.7</b>	+11.6	+10.8	+9.7	+7.9
Dec.	-4.0	-4.6	-2.9	+0.0	+2.7	+4.9	+5.3	+3.7	+0.8	-3.1	-8.4	<b>-10.7</b>	-9.4	-5.6	-2.6	-0.9	+1.7	+4.9	+6.7	<b>+6.8</b>	+5.3	+4.0	+2.3	+1.8
Year	+4.1	+3.2	+3.8	+5.0	+7.0	+7.9	+6.6	+2.3	-4.7	-13.7	-21.4	<b>-23.5</b>	-20.9	-16.1	-10.0	-2.8	+2.8	+7.5	+10.4	<b>+12.3</b>	+11.3	+10.5	+9.7	+8.8
Winter	-0.1	-1.1	+0.5	+1.5	+4.7	+7.3	<b>+8.3</b>	+6.8	+2.9	-5.4	-12.4	<b>-16.2</b>	-15.3	-12.5	-8.7	-4.3	-0.1	+4.4	+7.4	+7.0	+6.2	+6.4	+6.5	+5.9
Equinox	+8.0	+7.1	+7.0	+7.6	+8.5	+9.6	+9.4	+5.6	-3.2	-14.7	-25.6	<b>-30.4</b>	-28.8	-21.6	-13.4	-5.1	+0.9	+6.1	+9.1	+12.9	+12.8	+12.7	<b>+13.2</b>	+12.3
Summer	+4.4	+3.6	+3.9	+5.6	+7.8	+6.6	+2.0	-5.4	-13.7	-21.1	<b>-26.1</b>	-23.9	-18.6	-14.2	-7.6	+1.0	+7.5	+11.9	+14.6	<b>+17.0</b>	+14.8	+12.4	+9.4	+8.2

WEST COMPONENT

Jan	-8.2	-6.7	-3.9	-4.6	-2.3	-2.2	-3.0	-5.7	-7.7	-5.7	-0.9	+5.0	+13.4	<b>+20.0</b>	+13.8	+8.6	+5.3	+6.6	+4.8	+0.2	-6.2	-8.9	-7.2	-5.5
Feb.	-3.8	-1.6	-0.6	-1.6	-3.2	-4.7	-6.9	-8.7	-16.0	<b>-21.6</b>	-14.8	-1.8	+13.0	<b>+19.5</b>	+19.1	+13.7	+8.6	+6.1	+5.4	+5.5	+3.6	+0.2	-4.5	-4.5
March	-4.8	-5.2	-4.7	-6.1	-7.1	-9.6	-9.5	-17.1	-28.1	<b>-32.2</b>	-18.4	+5.3	+23.6	<b>+33.0</b>	+32.5	+23.3	+12.4	+6.4	+4.9	+2.8	+1.8	+0.2	-0.7	-2.9
April	-2.1	-3.2	-5.0	-5.6	-9.3	-15.1	-24.7	-33.9	<b>-39.2</b>	-29.8	-10.0	+11.2	+29.9	<b>+36.7</b>	+31.6	+24.1	+14.8	+9.7	+5.4	+4.5	+3.0	+3.5	+2.1	+1.1
May	-1.3	-3.4	-4.6	-5.7	-10.3	-16.1	-25.8	<b>-32.3</b>	-29.1	-19.0	-3.5	+12.9	+25.0	<b>+24.7</b>	+21.0	+17.5	+13.3	+11.1	+8.3	+7.1	+5.1	+2.3	+1.9	+0.9
June	-2.4	-2.1	-3.4	-6.9	-14.6	-23.6	-31.0	<b>-35.9</b>	-31.8	-20.3	-3.1	+16.0	+28.1	<b>+31.6</b>	+30.5	+24.8	+17.4	+11.0	+5.8	+2.5	+1.9	+1.8	+1.4	+1.7
July	-0.7	-4.0	-7.6	-8.4	-17.0	-27.0	-36.8	<b>-36.8</b>	-32.3	-17.0	-0.0	+20.6	+34.5	<b>+40.2</b>	+35.6	+27.3	+15.2	+3.9	-0.1	+2.7	+2.6	+2.6	+1.6	+0.6
Aug.	-9.7	-10.1	-9.2	-11.4	-12.8	-18.6	-23.9	<b>-29.0</b>	-27.7	-17.2	+1.3	+18.8	+31.8	<b>+35.7</b>	+31.5	+22.6	+12.3	+4.3	+2.6	+3.9	+3.6	+2.8	+0.4	-1.8
Sept.	-7.4	-7.6	-7.4	-8.2	-10.6	-13.2	-20.4	<b>-27.9</b>	-23.4	-8.3	+12.3	+26.9	<b>+34.7</b>	+32.1	+22.4	+13.9	+8.2	+7.0	+6.2	+3.7	+1.3	-1.7	-3.6	
Oct.	-4.5	-3.6	-4.6	-4.1	-4.0	-5.2	-8.5	-18.5	<b>-26.2</b>	-23.7	-8.8	+8.6	+21.2	<b>+24.9</b>	+24.4	+16.0	+11.1	+7.8	+5.6	+4.6	+1.0	-3.3	-3.3	-6.4
Nov.	-7.5	-6.1	-2.8	-1.9	-2.2	-3.2	-4.6	-7.3	-13.4	<b>-15.1</b>	-7.6	+5.4	+14.6	<b>+17.1</b>	+13.0	+9.0	+8.6	+5.4	+4.7	+3.1	+0.5	-3.5	-3.5	-3.3
Dec.	-6.7	-4.8	-2.8	-1.2	-1.4	-2.2	-4.0	-6.4	-8.5	-6.1	-0.7	+5.7	+9.6	<b>+12.1</b>	+10.1	+7.7	+6.1	+5.1	+4.2	+1.5	-3.1	-4.8	-4.7	-6.0
Year	-4.9	-4.9	-4.7	-5.5	-7.9	-11.7	-16.6	-21.6	<b>-24.1</b>	-19.3	-6.2	+10.0	+22.7	<b>+27.5</b>	+24.6	+18.1	+11.6	+7.1	+4.9	+3.7	+1.5	-0.5	-1.5	-2.5
Winter	-6.6	-4.9	-2.5	-2.4	-2.3	-3.1	-4.6	-7.0	-11.3	<b>-12.1</b>	-6.0	+3.6	+12.7	<b>+17.2</b>	+14.0	+9.8	+7.2	+5.8	+4.6	+2.6	-1.3	-4.3	-5.0	-4.8
Equinox	-4.7	-5.0	-5.4	-6.0	-7.6	-10.6	-15.8	-24.4	<b>-30.7</b>	-27.3	-11.4	+9.4	+25.5	<b>+32.3</b>	+30.2	+21.5	+13.1	+8.0	+5.8	+4.5	+2.4	+0.4	-0.9	-3.0
Summer	-3.5	-4.9	-6.2	-8.1	-13.7	-21.4	-29.4	<b>-33.5</b>	-30.2	-18.4	-1.3	+17.1	+29.9	<b>+33.1</b>	+29.7	+23.1	+14.6	+7.6	+4.2	+4.1	+3.4	+2.4	+1.3	+0.4

VERTICAL COMPONENT

Jan.	-1.5	-2.1	-1.7	-2.1	-2.1	-1.7	-0.5	-0.9	-2.5	-4.5	-3.1	-4.7	<b>-5.3</b>	-1.9	+0.5	+1.5	+2.7	+3.3	+4.3	+4.1	+5.5	<b>+5.7</b>	+4.1	+2.1
Feb.	+2.3	+3.3	+3.1	+3.6	+3.7	<b>+4.1</b>	+6.3	+1.1	+2.3	-1.9	-8.5	<b>-13.3</b>	<b>-13.3</b>	-10.7	-4.7	+1.3	+3.1	<b>+4.1</b>	+3.7	+2.9	+3.1	+3.3	+2.5	+1.7
March	+4.7	+5.9	+6.1	+6.1	+5.7	+5.6	+4.7	<b>+6.5</b>	+4.5	-2.7	-11.1	-18.7	<b>-20.9</b>	-16.7	-8.9	+1.1	+5.3	+4.1	+3.5	+3.7	+3.5	+3.3	+2.7	+2.1
April	+5.3	+6.1	+6.5	+6.1	+5.9	+5.7	+6.5	+5.7	+1.1	-10.7	-20.7	<b>-24.1</b>	-22.1	-12.7	-3.1	+2.9	+5.3	<b>+6.9</b>	+6.7	+6.5	+5.3	+4.1	+3.7	+2.9
May	+7.4	+7.6	+8.0	+8.4	<b>+10.4</b>	+9.6	+6.2	+2.0	-3.6	-10.6	-16.2	-21.4	<b>-22.0</b>	-17.0	-9.2	-2.6	+2.2	+5.2	+7.2	+7.2	+6.2	+5.8	+5.2	+4.6
June	+3.0	+3.0	+2.8	+3.6	+5.4	+5.6	+2.8	+1.0	-2.4	-8.8	-16.0	<b>-19.6</b>	-19.0	-13.0	-3.6	+2.6	+6.4	+7.0	<b>+9.0</b>	<b>+9.0</b>	+8.2	+5.6	+3.4	+3.2
July	+2.3	+2.3	+2.7	+4.1	+6.7	+5.1	+1.5	+0.3	-4.9	-10.5	-14.9	<b>-18.9</b>	-17.9	-12.7	-0.9	+6.5	+11.3	<b>+13.7</b>	+11.5	+7.5	+5.3	+1.7	-0.1	-0.7
Aug.	+1.4	+1.8	+2.4	+2.8	+4.8	+5.2	+5.6	+3.6	+1.8	-3.2	-8.6	-13.8	<b>-15.4</b>	-9.8	-2.2	+2.8	+5.6	<b>+6.8</b>	+4.2	+3.6	+2.6	+0.6	-1.2	-1.6
Sept.	+3.8	+3.0	+4.2	+4.0	+4.4	+4.8	+5.2	+3.6	0.0	-6.2	-13.2	<b>-16.4</b>	-16.2	-10.6	-4.6	-0.2	+2.0	+4.4	+5.2	<b>+6.0</b>	+5.4	+4.8	+3.0	+1.8
Oct.	+0.7	+1.1	+1.1	+1.1	+1.1	+2.5	+2.7	+4.5	+2.7	-3.3	-9.5	<b>-12.3</b>	-11.1	-8.3	-3.5	+1.7	+4.7	+4.1	<b>+5.1</b>	+4.3	+4.1	+3.7	+2.1	+0.3
Nov.	-2.0	-1.6	-1.6	-1.2	-0.8	-0.4	-0.6	+0.2	0.0	-2.0	-6.4	-5.6	-4.6	-1.6	+1.6	+4.0	<b>+4.6</b>	+4.0	+4.4	+3.6	+3.0	+2.6	+0.4	-1.2
Dec.	-0.5	-0.3	+0.1	-0.5	-0.3	+0.1	+0.5	-0.1	-0.7	-1.1	-3.3	-2.9	-3.3	-3.1	-0.5	+1.1	<b>+3.3</b>	+3.1	+2.9	+2.3	+2.1	+1.3	+0.3	-1.5
Year	+2.2	+2.5	+2.8	+3.0	+3.7	+3.9	+3.1	+2.3	-0.1	-5.5	-11.0	<b>-14.3</b>	-14.3	-9.8	-3.3	+1.9	+4.7	+5.6	<b>+5.6</b>	+5.1	+4.5	+3.5	+2.2	+1.2
Winter	-0.4	-0.2	-0.0	-0.1	+0.1	+0.5	+0.4	+0.1	-0.2	-2.4	-5.3	<b>-6.7</b>	-6.6	-4.3	-0.7	+2.0	+3.4	+3.6	<b>+3.6</b>	+3.2	+3.4	+3.2	+1.6	+0.3
Equinox	+3.6	+4.0	+4.5	+4.3	+4.3	+4.6	+4.8	<b>+5.1</b>	+2.1	-5.7	-13.6	<b>-17.9</b>	-17.6	-12.1	-5.1	+1.4	+4.3	+4.9	<b>+5.1</b>	<b>+5.1</b>	+4.6	+4.0	+2.9	+1.8
Summer	+3.5	+3.7	+4.0	+4.6	+6.8	+6.5	+4.0	+1.7	-2.3	-8.6	-13.9	<b>-18.5</b>	-18.6	-13.1	-4.0	+2.3	+6.4	<b>+8.2</b>	+8.0	+6.9	+5.6	+3.4	+1.6	+1.4



TABLE VII. - MEAN DIURNAL INEQUALITIES OF THE MAGNETIC ELEMENTS -  
DECLINATION, INCLINATION AND HORIZONTAL INTENSITY

International Disturbed Days

DECLINATION WEST

Month and Season, 1938.	Universal Time. Hour commencing -																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Jan.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Feb.	-1.39	-1.13	-0.77	-1.45	-1.99	+0.61	+0.25	-0.49	-2.25	-2.41	-0.47	+2.07	+3.97	<b>+5.45</b>	+4.45	+5.09	+4.09	-0.65	-0.65	-0.41	-2.31	<b>-3.59</b>	-3.43	-2.41
March	<b>-9.30</b>	-7.14	-5.54	-4.78	-3.12	-1.44	+1.84	+0.60	-1.96	-1.84	+1.52	+3.74	+6.66	<b>+9.18</b>	+8.44	+7.70	+5.78	+3.78	+1.52	-1.62	-2.32	-2.96	-4.18	-4.56
April	-3.06	-2.86	-4.23	-4.46	<b>-5.18</b>	-3.26	-2.71	-3.61	-4.21	-2.68	-0.16	+4.14	+7.17	<b>+8.42</b>	+8.07	+6.19	+3.74	+0.29	+0.49	-0.41	+0.37	-0.68	-0.18	-1.21
May	-4.14	-4.47	-5.94	<b>-6.59</b>	-3.99	-4.39	-4.47	-4.74	-5.37	-3.09	+0.73	+4.33	+8.36	<b>+10.61</b>	+9.38	+7.01	+6.11	+3.71	+2.18	+0.31	+0.62	-1.02	-1.04	-2.84
June	-0.64	-2.69	-3.99	-2.69	-1.97	-4.29	-5.57	<b>-6.27</b>	-4.09	-2.27	+1.26	+4.21	+6.16	+6.56	<b>+6.63</b>	+5.33	+3.56	+2.43	+1.66	-1.09	-0.92	-0.82	-0.52	+0.03
July	-2.29	-2.05	-0.59	-2.39	-2.35	-2.63	<b>-5.27</b>	-4.51	-3.23	-2.01	+0.57	+3.33	+6.09	<b>+7.63</b>	+7.17	+7.07	+5.91	+3.79	+0.15	-2.05	-2.49	-3.85	-3.43	-2.53
Aug.	-1.96	-2.20	-3.56	-3.92	-5.26	-6.08	-5.78	<b>-6.22</b>	-3.08	+0.14	+2.90	+5.52	+8.18	+8.58	<b>+9.04</b>	+6.64	+2.06	+0.56	+1.70	+1.04	+0.16	+0.74	-4.18	-4.94
Sept.	-5.92	<b>-7.02</b>	-3.90	-6.16	-1.78	+0.70	0.00	-2.12	-3.18	-0.60	+2.18	+5.26	+7.68	<b>+8.96</b>	+7.60	+7.28	+5.68	+3.96	+1.20	-1.34	-6.40	-4.14	-3.00	-5.04
Oct.	<b>-5.48</b>	-2.08	-0.82	-1.16	-3.68	-2.12	-1.24	-3.24	-2.68	+0.08	+2.52	+6.44	+7.92	<b>+8.36</b>	+5.94	+6.60	+1.54	+1.50	+0.66	-3.20	-5.20	-3.38	-3.70	-3.66
Nov.	-3.27	-2.35	-0.81	-0.95	-1.35	-1.71	-0.93	+0.53	-1.29	-1.17	+1.41	+4.93	+6.97	<b>+7.17</b>	+6.99	+3.69	+2.77	+1.45	-0.01	-2.87	-5.07	<b>-5.17</b>	-4.47	-4.57
Dec.	-3.58	-3.12	-2.84	-2.08	-1.30	-0.92	-0.02	+0.40	-0.20	+0.48	+1.30	+2.66	+3.68	+5.58	+4.82	+6.20	<b>+6.58</b>	+4.60	+3.70	-0.66	<b>-7.18</b>	-5.92	-5.38	-7.16
Year	<b>-3.73</b>	-2.39	-3.00	-3.33	-2.90	-2.32	-2.17	-2.70	-2.87	-1.40	+1.25	+4.24	+8.62	<b>+7.86</b>	+7.16	+6.25	+4.34	+2.31	+1.13	-1.12	-2.91	-2.80	-3.05	-3.54
Winter	-2.75	-2.20	-1.47	-1.49	-1.55	-0.67	-0.23	+0.15	-1.25	-1.03	+0.75	+3.22	+4.87	<b>+6.07</b>	+5.42	+4.99	+4.48	+1.80	+0.95	-1.31	-4.85	<b>-4.89</b>	-4.43	-4.71
Equinox	<b>-5.94</b>	-4.78	-3.62	-4.14	-3.44	-1.53	-0.53	-2.09	-3.01	-1.26	+1.52	+4.90	+7.36	<b>+8.73</b>	+7.51	+8.94	+4.19	+2.38	+0.97	-1.64	-3.39	-2.79	-2.77	-3.62
Summer	-2.26	-2.90	-3.52	-3.90	-3.39	-4.35	-5.27	<b>-5.44</b>	-3.94	-1.61	+1.37	+4.35	+7.20	<b>+8.35</b>	+8.11	+6.51	+4.41	+2.62	+1.42	-0.45	-0.97	-1.24	-2.29	-2.57

INCLINATION

Jan.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Feb.	-0.81	-1.07	-1.38	-2.08	-2.84	-2.14	<b>-2.90</b>	-2.24	-1.05	-0.23	+0.32	+0.62	+1.64	+1.36	+0.85	+0.44	+1.55	<b>+2.93</b>	+2.30	+1.88	+0.96	+0.30	+0.39	+0.54
March	<b>-1.84</b>	-0.65	-1.42	-1.26	-1.63	-1.62	-1.80	-0.79	+0.22	<b>+1.62</b>	+1.04	+1.05	+1.13	+0.56	+1.03	+0.99	+1.09	+0.46	+1.20	+0.71	-0.44	+0.68	+0.04	-0.14
April	-0.16	-0.07	+0.02	-0.13	-0.21	-0.36	+0.12	+0.27	+0.95	+1.35	<b>+2.01</b>	+1.31	+1.09	+1.02	+0.44	-0.30	-1.02	-0.20	-0.69	<b>-1.45</b>	-1.40	-1.45	-0.71	-0.51
May	-1.61	-1.08	-1.19	-0.61	-0.49	-0.22	+0.03	+1.38	<b>+1.52</b>	+1.39	+1.34	+1.17	+1.30	+0.95	+0.93	+0.74	+0.39	-0.04	-0.09	-0.22	-0.62	-1.45	-1.47	<b>-2.07</b>
June	-1.35	-1.59	-1.41	-1.12	-0.99	-0.81	+0.34	+1.80	+2.01	<b>+2.45</b>	+2.09	+1.43	+0.99	+1.20	+0.81	+0.89	+0.15	-0.59	<b>-1.72</b>	-1.33	-1.19	-1.05	-0.29	-0.61
July	-1.50	-1.41	-1.53	-1.54	-1.36	-0.72	+0.39	+0.98	+2.01	<b>+2.38</b>	+2.19	+1.91	+0.57	+1.19	+1.76	+0.03	-0.80	-1.83	<b>-2.11</b>	-1.73	+0.04	+0.46	+0.44	+0.13
Aug.	-0.83	-1.32	-1.20	-1.21	-1.19	-0.80	-0.39	+0.69	+1.67	<b>+2.46</b>	+1.88	+1.59	+1.55	+1.13	+0.84	+0.91	+0.03	-0.07	-1.09	-1.06	-0.57	-1.17	<b>-1.65</b>	-0.23
Sept.	-2.35	-1.62	-2.87	<b>-3.17</b>	-2.76	-1.81	-1.28	-0.76	+1.77	+2.12	+2.51	<b>+2.53</b>	+2.17	+1.68	+1.65	+1.23	+1.50	+1.65	+1.32	+0.86	-0.43	-0.63	-1.76	-1.52
Oct.	-1.04	-1.39	-1.93	-2.66	-2.72	<b>-2.97</b>	-1.78	-0.80	+0.20	+1.25	+2.34	<b>+2.59</b>	+1.85	+1.69	+1.55	+1.33	+1.96	+1.49	+0.88	+0.73	-0.50	-0.84	-0.79	-0.40
Nov.	-1.48	-0.84	-1.71	-1.82	<b>-2.26</b>	-2.08	-1.70	-1.65	-1.45	-0.43	+0.53	+1.16	+1.05	+0.90	+2.06	<b>+2.55</b>	+2.14	+1.97	+1.46	+1.15	+0.38	+0.33	+0.19	-0.17
Dec.	-0.71	-0.90	-1.82	-2.07	-2.26	-2.43	<b>-2.46</b>	-2.41	-1.96	-1.98	-1.66	-1.02	-0.92	-0.76	-0.15	+0.89	+0.78	+2.57	+3.49	<b>+4.64</b>	+4.41	+2.18	+2.28	+2.29
Year	-1.24	-1.11	-1.49	-1.61	<b>-1.70</b>	-1.45	-1.04	-0.36	+0.54	+1.13	+1.24	<b>+1.32</b>	+1.13	+0.99	+1.07	+0.88	+0.71	+0.76	+0.45	+0.38	+0.06	-0.24	-0.26	-0.24
Winter	-1.00	-0.97	-1.64	-1.99	<b>-2.45</b>	-2.22	-2.36	-2.17	-1.49	-0.88	-0.27	+0.32	+0.59	+0.50	+0.92	+1.29	+1.49	+2.49	+2.42	<b>+2.56</b>	+1.92	+0.94	+1.12	+0.89
Equinox	-1.35	-0.98	-1.55	-1.61	<b>-1.83</b>	-1.69	-1.19	-0.52	+0.79	+1.59	<b>+1.98</b>	+1.87	+1.56	+1.24	+1.17	+0.81	+0.88	+0.85	+0.68	+0.21	-0.69	-0.56	-0.61	-0.64
Summer	-1.32	<b>-1.35</b>	-1.33	-1.12	-1.01	-0.64	+0.09	+1.16	+1.80	<b>+2.17</b>	+1.88	+1.53	+1.10	+1.12	+1.09	+0.64	-0.06	-0.63	-1.25	-1.09	-0.59	-0.80	-0.74	-0.70

HORIZONTAL INTENSITY

	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jan.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Feb.	-10.6	+13.6	+17.0	+24.4	<b>+32.8</b>	+20.6	+31.2	+22.6	+ 8.6	- 2.6	-11.6	-19.2	<b>-28.6</b>	-21.4	- 9.4	- 0.8	-12.6	-27.4	-16.4	-14.6	- 3.2	+ 0.8	- 9.4	- 6.0
March	<b>+21.6</b>	+ 4.4	+13.2	+ 9.6	+17.0	+17.2	+17.0	+ 3.2	-10.4	<b>-30.6</b>	-21.6	-20.6	-20.2	- 7.8	-10.2	- 5.8	- 3.4	+ 7.8	- 2.0	+ 3.2	+15.6	- 3.4	+ 4.0	+ 1.4
April	+ 1.5	- 0.5	- 2.2	+ 0.5	+ 1.3	+ 2.5	- 3.5	- 6.0	-17.7	-25.7	<b>-38.5</b>	-29.5	-25.2	-19.0	- 3.7	+13.0	+27.5	+16.0	+19.8	<b>+29.5</b>	+26.0	+24.0	+ 8.5	+ 2.6
May	+14.9	+12.9	+13.9	+ 4.6	+ 2.6	- 3.4	- 9.4	-29.6	<b>-32.1</b>	-29.4	-29.1	-25.6	-23.6	-11.4	- 2.6	+ 6.4	+12.9	<b>+22.6</b>	+18.1	+18.4	+18.4	+21.1	+16.4	+13.6
June	+19.9	+22.2	+17.7	+11.4	+ 8.7	+ 4.2	-12.8	-29.6	-35.6	<b>-44.1</b>	-38.1	-27.3	-17.6	-18.3	- 8.6	- 7.1	+ 6.2	+18.4	<b>+35.7</b>	+29.9	+26.2	+20.2	+ 8.2	+12.4
July	+15.8	+13.4	+15.8	+17.6	+17.6	+ 6.8	-10.0	-20.6	-37.6	<b>-44.0</b>	-40.0	-38.5	-15.2	-22.4	-24.0	+ 9.2	+25.6	+42.8	<b>+48.2</b>	+39.4	+ 9.6	- 2.0	- 5.8	- 4.8
Aug.	+ 4.7	+12.1	+12.3	+14.3	+15.5	+10.3	+ 4.1	-12.7	-28.9	<b>-43.9</b>	-37.3	-31.7	-27.5	-14.5	- 5.9	- 3.1	+13.5	+13.5	<b>+25.1</b>	+22.7	+14.9	+21.5	+23.5	- 2.3
Sept.	+23.5	+10.7	+23.1	+24.3	<b>+26.3</b>	+16.1	+13.5	+ 7.1	-30.5	-35.9	<b>-40.7</b>	-39.3	-31.1	-17.3	-11.3	+ 0.1	- 1.5	- 5.1	- 2.1	+ 2.7	+15.7	+12.7	+24.1	+14.7
Oct.	+ 6.8	+13.2	+20.2	+28.4	+25.2	<b>+28.6</b>	+15.4	+ 4.2	- 8.4	-23.6	-38.8	<b>-41.2</b>	-26.8	-19.6	-10.6	- 4.0	- 9.0	- 5.0	+ 4.6	+ 3.0	+13.6	+13.8	+ 9.0	+ 1.2
Nov.	+16.4	+10.0	+20.8	+21.6	<b>+27.8</b>	+25.0	+19.8	+22.0	+15.4	+ 0.4	-14.0	-21.8	-17.6	-12.2	-25.2	<b>-27.8</b>	-20.4	-18.4	-11.2	- 8.4	0.0	- 1.4	- 1.6	+ 1.6
Dec.	+ 5.7	+ 8.5	+19.9	+22.7	+25.1	+28.1	<b>+29.1</b>	+27.7	+20.9	+20.7	+16.3	+ 6.9	+ 7.1	+ 6.1	+ 0.5	- 9.5	- 5.5	-27.3	-36.1	<b>-49.5</b>	-44.3	-19.7	-25.7	-28.3
Year	+12.9	+11.0	+15.6	+16.3	<b>+18.2</b>	+14.2	+ 8.6	- 1.1	-14.2	-23.5	<b>-26.7</b>	-25.9	-20.6	-14.3	-10.1	- 2.7	+ 3.0	+ 3.4	+ 7.6	+ 6.9	+ 8.4	+ 8.0	+ 4.6	+ 0.6
Winter	+10.9	+10.7	+19.2	+22.9	<b>+28.6</b>	+24.6	+26.7	+24.1	+15.0	+ 6.2	- 3.1	-11.4	-13.0	- 9.2	-11.4	-12.7	-12.6	<b>-24.4</b>	-21.2	-24.2	-15.6	- 6.8	-12.3	-10.9
Equinox	+13.4	+ 7.0	+13.6	+15.7	+17.5	+16.1	+10.6	+ 2.1	-16.8	-29.0	<b>-34.9</b>	-32.7	-25.6	-15.9	- 9.0	+ 0.6	+ 3.4	+ 3.4	+ 5.1	+ 9.6	<b>+17.7</b>	+11.8	+11.4	+ 5.0
Summer	+13.8	+15.2	+14.9	+12.0	+11.1	+ 4.5	- 7.0	-23.2	-33.6	<b>-40.4</b>	-36.1	-30.1	-21.0	-16.7	-10.3	+ 1.4	+14.6	+24.3	<b>+31.6</b>	+27.6	+17.3	+15.2	+10.6	+ 4.7

TABLE VII- - continued.- MEAN DIURNAL INEQUALITIES OF GEOGRAPHICAL COMPONENTS OF MAGNETIC INTENSITY.

International Disturbed Days.

NORTH COMPONENT.

Month and Season, 1938.	Universal Time. Hour commencing -																							
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Jan.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Feb.	+11.8	+14.5	+17.5	+25.5	<b>+34.3</b>	+19.6	+30.4	+22.7	+10.8	- 0.1	-11.9	-21.0	<b>-32.2</b>	-26.6	-13.8	- 6.0	-16.6	-26.2	-15.2	-13.9	- 0.6	+ 4.5	- 5.7	- 3.4
March	<b>+30.8</b>	+11.7	+18.7	+14.3	+19.9	+18.4	+14.8	+ 2.5	- 8.2	<b>-28.2</b>	-22.8	-24.1	-26.7	-17.1	-18.7	-13.6	- 9.3	+ 3.8	- 3.5	+ 4.8	+17.7	- 0.3	+ 8.2	+ 6.1
April	+ 4.6	+ 2.5	+ 2.2	+ 5.1	+ 6.6	+ 5.8	- 0.7	- 2.2	-13.1	-22.5	<b>-37.7</b>	-33.2	-32.1	-27.3	-11.9	+ 6.4	+23.2	+15.4	+18.9	<b>+29.4</b>	+25.2	+24.3	+ 8.5	+ 4.0
May	+18.9	+17.3	+19.8	+11.3	+ 6.7	+ 1.2	- 4.6	-24.2	-26.0	-25.7	-29.3	-29.6	<b>-31.8</b>	-22.1	-12.2	- 0.9	+ 6.4	+18.4	+15.5	+17.8	+18.7	<b>+21.8</b>	+17.2	+16.3
June	+20.2	+24.8	+21.5	+14.0	+10.6	+ 8.5	- 6.8	-22.6	-30.8	<b>-41.0</b>	-38.7	-31.1	-23.8	-24.7	-15.7	-12.5	+ 2.4	+15.6	<b>+33.4</b>	+30.5	+26.7	+20.7	+ 8.6	+12.2
July	+17.9	+15.3	+16.1	+19.7	+19.7	+ 9.4	- 4.4	-15.6	-33.6	<b>-41.1</b>	-39.9	-38.6	-21.2	-29.8	-30.9	+ 1.8	+19.3	+38.1	<b>+47.2</b>	+40.8	+12.1	+ 2.0	- 2.2	- 2.1
Aug.	+ 6.6	+14.1	+15.7	+18.1	+20.6	+16.4	+10.0	- 6.1	-25.2	<b>-43.3</b>	-39.6	-36.6	-35.4	-23.1	-15.1	- 9.9	+11.1	+12.7	+22.9	+21.2	+14.5	+20.4	<b>+27.4</b>	+ 2.8
Sept.	+29.2	+17.7	+26.7	<b>+30.2</b>	+27.6	+15.1	+13.3	+ 9.2	-28.7	-34.6	-42.2	<b>-44.0</b>	-38.4	-26.2	-18.9	- 7.4	- 7.3	- 9.1	- 3.3	+ 4.0	+22.0	+16.7	+26.8	+19.6
Oct.	+12.3	+15.1	+20.7	+29.1	+28.5	<b>+30.3</b>	+18.4	+ 7.5	- 5.5	-23.3	-40.7	<b>-47.1</b>	-34.5	-27.8	-16.7	-10.7	-10.4	- 6.5	+ 3.6	+ 6.2	+18.7	+17.0	+12.6	+ 4.9
Nov.	+19.5	+12.2	+21.3	+22.2	<b>+28.7</b>	+26.3	+20.4	+21.1	+16.5	+ 1.6	-15.2	-26.5	-24.5	-19.4	<b>-31.9</b>	-31.1	-22.9	-19.6	-11.0	- 5.3	+ 5.2	+ 3.9	+ 2.6	+ 6.3
Dec.	+ 9.3	+11.8	+22.5	+24.4	+26.0	+28.5	<b>+28.6</b>	+26.8	+20.7	+19.8	+14.7	+ 4.1	+ 3.2	+ 0.3	- 4.5	-15.7	-12.2	-31.5	-39.3	<b>-47.9</b>	-36.1	-13.3	-19.7	-20.4
Year	+16.5	+14.3	+18.4	+19.4	<b>+20.8</b>	+16.3	+10.7	+ 1.7	-11.0	-21.7	-27.6	<b>-29.8</b>	-27.0	-22.2	-17.3	- 9.1	- 1.5	+ 1.0	+ 6.3	+ 8.0	+11.3	+10.7	+ 7.7	+ 4.2
Winter	+13.5	+12.8	+20.4	+24.0	<b>+29.7</b>	+24.8	+26.5	+23.5	+16.0	+ 7.1	- 4.1	-14.5	-17.8	-15.2	-16.7	-17.6	-17.2	<b>-25.8</b>	-21.6	-22.4	-10.6	- 1.6	- 7.5	- 5.8
Equinox	+19.2	+11.8	+17.1	+19.7	+20.7	+17.4	+11.0	+ 4.3	-13.4	-27.2	-35.9	<b>-37.1</b>	-32.9	-24.6	-16.6	- 6.3	- 1.0	+ 0.9	+ 4.0	+11.1	<b>+30.9</b>	+14.4	+14.0	+ 8.7
Summer	+15.9	+17.9	+18.3	+15.8	+14.4	+ 8.9	- 1.5	-17.2	-28.9	<b>-37.8</b>	-36.9	-34.0	-28.1	-24.9	-18.5	- 5.4	+ 9.8	+21.2	<b>+29.8</b>	+27.6	+18.0	+16.2	+12.6	+ 7.3

WEST COMPONENT

	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jan.	- 5.3	- 3.4	- 0.8	- 3.0	- 4.3	+ 7.2	+ 7.3	+ 1.7	-10.3	-13.2	- 4.7	+ 7.3	+15.5	+24.7	+21.7	<b>+26.8</b>	+19.2	- 8.7	- 7.6	- 5.0	-12.6	-18.8	<b>-19.9</b>	-13.9
Feb.	<b>-45.1</b>	-36.9	-26.8	-23.5	-13.3	- 4.3	+13.0	+ 3.8	-12.4	-15.6	+ 3.9	+15.9	+31.4	<b>+47.1</b>	+42.7	+39.6	+29.9	+21.5	+ 7.7	- 8.0	- 9.3	-16.3	-21.3	-23.8
March	-15.9	-15.2	-22.8	-23.5	<b>-27.1</b>	-16.8	-15.0	-20.2	-25.6	-19.1	- 8.2	+16.3	+33.1	+40.9	<b>+42.0</b>	+35.2	+25.0	+ 4.6	+ 6.4	+ 3.5	+ 6.9	+ 1.0	+ 0.7	- 5.9
April	-19.0	-21.2	-28.8	<b>-34.0</b>	-20.6	-23.9	-25.4	-30.7	-34.5	-22.0	- 1.7	+18.0	+39.7	<b>+53.9</b>	+49.1	+38.3	+34.8	+23.9	+15.0	+ 5.2	+ 0.2	- 1.4	- 2.4	-12.4
May	+ 0.4	-11.0	-17.7	-12.1	- 8.8	-21.9	-31.9	<b>-38.9</b>	-28.4	-20.4	- 0.6	+17.1	+29.2	+31.2	<b>+34.4</b>	+26.8	+20.0	+16.4	+15.6	- 0.1	+ 0.1	- 0.5	- 1.2	+ 2.5
June	- 9.1	- 8.3	- 0.1	- 9.3	- 9.1	-12.6	<b>-29.8</b>	-27.6	-24.3	-19.0	- 4.6	+10.6	+29.3	+36.1	+33.3	<b>+39.2</b>	+36.2	+28.2	+10.0	- 3.3	-11.3	-20.7	-19.3	-14.3
July	- 9.5	- 9.3	-16.5	-18.0	-24.9	-30.2	-29.7	<b>-35.3</b>	-21.8	- 7.6	+ 8.2	+23.1	+38.0	+42.6	<b>+46.7</b>	+34.5	+13.5	+ 5.5	+13.6	+ 9.8	+ 3.7	+ 8.0	-17.6	-26.6
Aug.	-26.8	<b>-35.1</b>	-16.2	-27.9	- 4.3	+ 6.8	+ 2.6	- 9.9	-22.7	-10.0	+ 3.8	+20.3	+34.7	<b>+44.1</b>	+38.0	+38.5	+29.8	+20.0	+ 6.0	- 6.6	-30.6	-19.5	-11.3	-23.8
Sept.	<b>-27.7</b>	- 8.5	- 0.5	- 0.7	-14.8	- 5.8	- 3.6	-16.3	-15.8	- 4.1	+ 5.9	+26.2	+36.8	<b>+40.5</b>	+29.4	+34.2	+ 6.4	+ 7.0	+ 4.4	-16.4	-24.9	-15.2	-17.9	-19.1
Oct.	-14.2	-10.5	- 0.3	- 0.9	- 1.8	- 4.3	- 1.1	+ 7.0	- 3.9	- 6.1	+ 4.8	+21.9	+33.5	<b>+35.6</b>	+32.2	+14.2	+10.8	+ 4.2	- 2.2	-18.8	-26.6	<b>-27.6</b>	-24.0	-23.9
Nov.	-17.8	-14.9	-11.2	- 6.7	- 2.1	+ 0.5	+ 5.5	+ 7.4	+ 2.9	+ 6.5	+10.0	+15.4	+20.8	<b>+30.7</b>	+25.6	+31.0	+33.8	+19.1	+12.7	-12.9	<b>-46.4</b>	-35.1	-33.4	-43.3
Dec.	-17.8	-14.9	-11.2	- 6.7	- 2.1	+ 0.5	+ 5.5	+ 7.4	+ 2.9	+ 6.5	+10.0	+15.4	+20.8	<b>+30.7</b>	+25.6	+31.0	+33.8	+19.1	+12.7	-12.9	<b>-46.4</b>	-35.1	-33.4	-43.3
Year	-17.3	-15.6	-12.9	-14.5	-11.9	- 9.6	- 9.8	-14.5	-17.9	-11.9	+ 1.5	+17.5	+31.1	<b>+38.9</b>	+35.9	+32.6	+23.6	+12.9	+ 7.4	- 4.6	-13.8	-13.3	-15.2	<b>-18.6</b>
Winter	-12.4	- 9.6	- 4.1	- 3.5	- 2.7	+ 1.1	+ 3.9	+ 5.4	- 3.8	- 4.3	+ 3.4	+14.9	+23.3	<b>+30.3</b>	+26.5	+24.0	+21.3	+ 4.9	+ 1.0	-11.6	<b>-28.7</b>	-27.2	-25.6	-27.0
Equinox	<b>-28.9</b>	-23.9	-16.6	-18.9	-14.9	- 5.0	- 0.8	-10.7	-19.1	-13.6	+ 1.4	+19.7	+34.0	<b>+43.2</b>	+38.0	+36.9	+22.8	+13.3	+ 6.1	- 6.9	-14.5	-12.5	-12.5	-18.2
Summer	- 9.3	-12.5	-15.8	-18.4	-15.9	-22.2	-29.2	<b>-33.2</b>	-27.3	-17.3	+ 0.3	+17.3	+34.1	<b>+41.0</b>	+40.9	+34.7	+26.1	+18.5	+13.6	+ 2.9	- 1.8	- 3.7	-10.1	-12.7

VERTICAL COMPONENT

	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jan.	- 3.5	- 5.3	- 7.9	-15.1	-21.7	-25.7	<b>-27.5</b>	-24.7	-16.3	-14.3	-15.9	-16.1	-10.1	- 2.9	+ 7.7	+13.3	+24.3	+37.3	<b>+40.9</b>	+31.1	+25.5	+12.1	+ 8.9	+ 4.9
Feb.	-13.2	-18.8	-18.4	-21.0	-16.4	-18.0	<b>-22.4</b>	-19.6	-16.4	-15.0	-14.4	-11.6	- 7.8	+ 1.2	+11.6	+20.6	+29.6	+34.2	<b>+37.0</b>	+32.2	+21.2	+15.4	+10.6	- 1.8
March	- 2.1	- 3.6	- 4.4	- 3.4	- 4.1	- 6.4	- 4.1	- 4.4	- 8.4	-13.1	-13.9	<b>-23.6</b>	-21.1	- 8.9	+ 6.6	+20.1	+28.6	<b>+30.4</b>	+22.1	+18.6	+12.1	+ 5.9	- 4.9	-11.1
April	-21.2	- 7.2	- 8.6	-10.4	-10.8	-15.4	-20.6	-21.4	-22.0	-20.2	-21.4	-19.4	-10.0	+ 6.2	+25.8	+40.2	+43.6	<b>+51.0</b>	+39.0	+35.2	+21.4	- 1.0	-12.4	<b>-39.8</b>
May	- 0.4	- 3.2	- 7.7	-12.2	-13.9	<b>-18.4</b>	-17.9	-14.2	-13.4	-17.9	-16.7	-14.2	- 7.2	- 1.2	+ 7.6	+14.1	+19.6	+22.3	<b>+23.6</b>	<b>+23.8</b>	+20.1	+10.6	+ 8.6	+ 7.8
June	-15.3	-17.5	-16.3	-12.1	- 5.9	- 8.9	- 9.5	-14.3	-17.9	<b>-20.3</b>	-17.7	-17.3	-15.5	-11.1	+ 4.9	+22.5	+32.5	+36.3	<b>+39.3</b>	+32.3	+24.1	+11.3	+ 1.7	- 6.5
July	-17.5	-17.3	-12.7	- 8.5	- 5.1	- 3.7	- 3.7	- 5.9	- 9.7	-17.3	<b>-21.7</b>	-19.1	-10.3	+ 5.3	+15.3	+24.3	<b>+32.5</b>	+28.9	+20.7	+16.3	+14.7	+ 9.7	- 2.5	-13.5
Aug.	-26.4	-31.0	-45.0	<b>-52.8</b>	-34.0	-24.8	-12.8	- 9.6	-10.0	-10.2	- 8.0	- 4.0	+ 2.4	+17.6	+30.6	+42.8	<b>+48.2</b>	+45.0	+40.6	+35.8	+21.6	+ 8.0	- 4.6	-18.4
Sept.	-19.9	-17.1	-19.5	-25.7	-35.1	<b>-35.9</b>	-25.5	-17.9	-12.9	-11.7	- 9.7	- 6.5	+ 1.3	+12.7	+28.3	+36.7	<b>+46.5</b>	+39.5	+41.1	+32.1	+14.5	+ 3.1	- 6.3	-11.1
Oct.	-12.9	- 9.3	-10.7	-12.5	-13.5	-13.3	-12.9	-12.7	<b>-14.3</b>	-13.7	-14.3	-10.7	- 4.7	+ 2.7	+12.3	+23.3	<b>+26.5</b>	+25.1	+24.5	+19.9	+13.1	+ 8.3	+ 2.5	- 1.9
Nov.	-11.3	-11.3	-16.5	-18.7	-19.7	-18.5	-17.9	-18.5	-19.1	<b>-19.9</b>	-19.3	-19.1	-15.1	-12.1	- 4.1	+ 8.7	+14.3	+25.1	+36.7	+44.7	<b>+48.9</b>	+29.3	+19.1	+13.1
Dec.	-11.3	-11.3	-16.5	-18.7	-19.7	-18.5	-17.9	-18.5	-19.1	<b>-19.9</b>	-19.3	-19.1	-15.1	-12.1	- 4.1	+ 8.7	+14.3	+25.1	+36.7	+44.7	<b>+48.9</b>	+29.3	+19.1	+13.1
Year	-13.1	-12.9	-15.2	<b>-17.5</b>	-16.4	-17.0	-15.9	-14.6	-14.6	-15.6	-16.3	-14.7	- 8.9	+ 0.9	+13.3	+24.2	+31.5	<b>+34.1</b>	+33.2	+29.3	+21.6	+10.3	+ 1.9	- 7.1
Winter	- 9.2	- 8.6	-11.7	-15.4	-18.3	-19.2	<b>-19.4</b>	-18.6	-16.6	-16.0	-16.5	-15.3	-10.0	- 4.1	+ 5.3	+15.1	+21.7	+29.2	<b>+34.0</b>	+31.9	+29.2	+16.6	+10.2	+ 5.4
Equinox	-15.4	-17.6	-21.8	<b>-25.7</b>	-22.4	-20.7	-16.2	-12.9	-11.9	-12.5	-13.0	-11.5	- 6.3	+ 5.7	+19.3	+30.1	<b>+38.2</b>	+37.3	+35.2	+29.7	+17.4	+ 8.1	- 1.4	-10.6
Summer	-13.6	-11.3	-11.3	-10.8	- 8.9	-11.6	-12.9	-14.0	-15.8	-18.9	<b>-19.4</b>	-17.5	-10.8	- 0.2	+13.4	+25.3	+32.1	<b>+34.6</b>	+30.7	+26.9	+20.1	+ 7.7	- 1.1	-13.0

TABLE VIII.- HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC INTENSITY

Values of  $a_n, b_n$ , in the series  $\Sigma (a_n \cos nt + b_n \sin nt)$ ,  $t$  being reckoned in hours from 0<sup>h</sup> U.T. and converted into arc at the rate of 15° to each hour.

Month and Season.	NORTH COMPONENT								WEST COMPONENT								VERTICAL COMPONENT									
	$a_1$	$b_1$	$a_2$	$b_2$	$a_3$	$b_3$	$a_4$	$b_4$	$a_1$	$b_1$	$a_2$	$b_2$	$a_3$	$b_3$	$a_4$	$b_4$	$a_1$	$b_1$	$a_2$	$b_2$	$a_3$	$b_3$	$a_4$	$b_4$		
"All" Days																										
1938	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Jan.	+5.9	+1.5	-4.1	-2.6	+1.7	-2.6	+1.9	-0.2	-9.8	-3.7	+1.4	+7.6	-0.4	-1.6	+2.3	+1.5	+0.8	-9.4	-3.2	+0.1	+1.8	-0.2	-1.2	-0.4		
Feb.	+10.2	+7.5	-5.6	-3.6	+2.0	-0.4	-1.4	+0.0	-9.6	-7.4	-0.7	+8.4	-0.5	-4.5	+0.7	+3.0	+4.5	-8.7	-3.9	-0.1	+1.5	+1.4	-0.8	-0.2		
March	+15.2	+2.3	-7.2	-1.7	+2.9	-1.6	-0.2	+1.0	-12.0	-14.7	+2.1	+10.6	-3.0	-8.2	+1.9	+1.9	+5.7	-6.9	-7.3	-1.0	+2.8	+0.4	-1.4	-0.5		
April	+19.5	-4.3	-12.6	-1.3	+3.9	-1.3	-0.4	+0.2	-8.7	-19.6	+8.0	+14.5	-5.2	-7.8	+2.3	+1.3	+7.6	-5.9	-9.8	+0.4	+4.1	+0.2	-1.7	+0.7		
May	+16.1	-7.1	-9.0	+0.4	+1.2	-0.3	+0.7	-1.6	-8.1	-20.2	+7.7	+11.0	-4.7	-4.7	+1.1	-0.6	+6.3	-8.5	-10.7	+1.8	+1.7	+1.1	-1.7	+0.1		
June	+16.7	-7.9	-9.0	+1.5	-2.0	-0.2	+2.4	+0.7	-6.5	-22.2	+8.9	+11.7	-3.7	-2.3	+0.6	-0.4	+8.5	-5.3	-7.6	-0.1	+1.5	+0.2	-0.4	+0.1		
July	+18.8	-7.3	-12.2	+2.6	-0.3	+0.7	+1.3	-0.6	-6.7	-21.4	+7.6	+14.7	-3.9	-3.4	-0.0	-0.6	+6.0	-8.5	-10.1	+0.5	+1.7	+1.3	-0.4	-0.6		
Aug.	+20.7	-7.4	-11.5	+3.7	-0.9	-2.8	+1.1	+0.3	-10.9	-20.6	+12.1	+10.8	-7.0	-4.1	-0.5	+0.5	+4.6	-8.7	-9.3	+0.7	+3.2	+0.0	-1.1	+0.2		
Sept.	+20.1	+1.3	-8.2	-0.6	+1.4	-2.3	-0.0	+1.1	-11.3	-14.6	+3.5	+12.0	-3.8	-5.1	+2.7	+0.8	+1.9	-8.1	-7.5	-1.5	+2.9	-0.3	-0.7	+0.7		
Oct.	+20.0	+2.3	-9.5	-0.4	+2.2	-4.1	-0.3	+0.9	-11.6	-8.8	+4.6	+11.2	-5.2	-3.8	+2.8	+1.5	-0.7	-9.8	-5.7	+0.3	+2.3	+0.1	-1.5	+0.8		
Nov.	+12.7	+5.6	-7.2	-2.2	+1.9	-1.9	-0.4	+1.6	-9.4	-5.4	+0.4	+8.2	-2.6	-2.0	+2.2	+2.4	+1.4	-7.1	-3.3	+0.1	+1.1	-0.6	-0.7	+0.2		
Dec.	+3.7	+6.7	-3.3	-0.4	+1.7	-1.6	-0.3	-0.9	-11.0	-3.3	-2.1	+6.8	-0.6	-0.3	+1.7	+0.5	+3.2	-8.0	-2.8	-1.7	-0.3	+0.1	-0.7	+0.0		
Year	+15.0	-0.5	-8.3	-0.4	+1.3	-1.5	+0.4	+0.2	-9.7	-13.5	+4.2	+10.6	-3.4	-4.0	+1.5	+1.0	+4.2	-7.8	-6.8	-0.1	+2.0	+0.3	-1.0	+0.1		
Winter	+8.1	+5.4	-5.0	-2.3	+1.8	-1.6	-0.0	+0.1	-10.0	-4.9	-0.9	+7.8	-1.0	-2.1	+1.8	+1.8	+2.5	-8.3	-3.3	-0.4	+1.0	+0.2	-0.9	-0.1		
Equinox	+18.7	+0.4	-9.3	-1.0	+2.6	-2.3	-0.3	+0.8	-10.9	-14.4	+4.6	+12.1	-4.3	-6.2	+2.4	+1.4	+3.6	-7.7	-7.6	-0.5	+3.0	+0.1	-1.3	+0.4		
Summer	+18.1	-7.4	-10.4	+2.0	-0.5	-0.6	+1.5	-0.3	-8.1	-21.1	+9.1	+12.1	-4.9	-3.6	+0.3	-0.3	+6.3	-7.3	-9.5	+0.8	+2.0	+0.6	-0.9	-0.0		
International Quiet Days																										
Year	+12.8	-0.9	-8.4	-0.4	+1.8	-1.3	+0.1	+0.7	-5.6	-13.3	+5.3	+9.7	-4.3	-3.9	+1.4	+1.2	+6.0	-1.4	-5.6	+0.2	+2.2	-0.0	-1.0	-0.0		
Winter	+7.5	+2.1	-6.6	-2.0	+2.0	-0.6	+0.2	+0.6	-4.6	-5.6	+0.2	+6.3	-2.4	-2.4	+1.3	+1.9	+2.5	-2.0	-2.7	-0.4	+1.1	-0.2	-0.7	-0.2		
Equinox	+16.9	+0.6	-9.6	-1.1	+3.3	-1.5	-0.6	+1.0	-5.5	-15.9	+5.2	+12.1	-5.0	-6.3	+2.1	+1.9	+7.4	-0.7	-6.5	-0.2	+3.2	-0.1	-1.5	+0.4		
Summer	+14.1	-5.4	-8.9	+2.1	-0.0	-1.6	+0.7	+0.5	-7.4	-18.2	+10.4	+10.6	-5.6	-3.0	+0.7	-0.2	+8.0	-1.6	-7.6	+1.1	+2.3	+0.2	-0.8	-0.2		
International Disturbed Days																										
Year	+20.0	-0.3	-9.5	+1.4	-0.4	-2.5	-0.2	-0.1	-18.9	-14.5	+2.2	+12.0	-1.7	-4.2	+2.1	+0.8	+0.1	-23.2	-10.1	+1.1	+1.3	+1.6	-1.1	+0.6		
Winter	+7.9	+17.6	-4.0	-1.6	+1.6	-3.7	-2.3	-2.2	-19.3	-5.7	-1.8	+11.0	+0.9	-2.4	+2.3	+1.2	+5.7	-21.6	-6.8	-1.5	-0.3	+2.4	-0.8	+1.0		
Equinox	+23.8	-1.1	-10.9	+1.3	+0.8	-5.0	-0.3	-1.3	-14.7	-10.7	+0.8	+12.2	-1.6	-6.8	+2.7	+0.7	-4.9	-25.2	-10.2	+1.0	+3.3	+1.9	-0.8	+1.0		
Summer	+25.4	-13.9	-12.2	+3.4	-3.0	+0.5	+3.0	-0.4	-15.4	-24.0	+6.6	+12.3	-3.8	-3.0	+1.4	-0.0	+0.8	-22.1	-12.3	+3.3	+0.4	+0.8	-1.7	+0.1		

TABLE IX. - HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC INTENSITY.

Values of  $c_n, \alpha_n$  in the series  $\Sigma c_n \sin (nT + \alpha_n)$ ,  $T$  being reckoned in hours from midnight, Abinger Local Mean Time and converted into arc at the rate of 15° to each hour. New phase-angles expressing the inequalities relative to Local Apparent Time may be obtained from the tabulated angles by applying corrections  $\alpha, 2\alpha, 3\alpha, 4\alpha$  respectively where  $\alpha$  has the following values:-

January	+2 19	April	+0 4	July	+1 22	October	-3 28	Winter	+0 12
February	+3 28	May	-0 51	August	+0 59	November	-3 42	Equinox	-0 36
March	+2 12	June	+0 5	September	-1 12	December	-1 6	Summer	+0 24

Month and Season.	NORTH COMPONENT								WEST COMPONENT								VERTICAL COMPONENT									
	$c_1$	$\alpha_1$	$c_2$	$\alpha_2$	$c_3$	$\alpha_3$	$c_4$	$\alpha_4$	$c_1$	$\alpha_1$	$c_2$	$\alpha_2$	$c_3$	$\alpha_3$	$c_4$	$\alpha_4$	$c_1$	$\alpha_1$	$c_2$	$\alpha_2$	$c_3$	$\alpha_3$	$c_4$	$\alpha_4$		
"All" Days																										
1938	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o	Y	o
Jan.	6.1	76	4.8	238	3.1	148	1.9	97	10.5	250	7.8	351	1.6	195	2.7	59	9.5	175	3.2	272	1.8	98	1.3	253		
Feb.	12.7	54	6.7	237	2.0	102	1.4	273	12.1	233	8.4	356	4.6	188	3.1	18	9.8	153	3.9	269	2.0	49	0.8	256		
Mar.	15.4	82	7.4	258	3.3	120	1.0	297	19.0	220	10.8	12	8.7	201	2.7	45	9.0	141	7.3	263	2.9	83	1.5	252		
Apr.	19.9	103	12.7	265	4.1	109	0.5	301	21.4	204	16.5	30	9.4	215	2.6	62	9.7	128	9.8	273	4.1	89	1.9	294		
May	17.6	114	9.0	273	1.2	104	1.7	156	21.8	202	13.4	36	6.7	226	1.2	123	10.6	144	10.9	281	2.0	60	1.7	276		
June	18.4	116	9.1	281	2.0	265	2.5	74	23.1	197	14.7	38	4.4	240	0.7	129	10.1	122	7.6	270	1.6	75	0.4	266		
July	20.2	111	12.4	283	0.8	339	1.9	110	22.4	198	16.6	28	5.2	230	0.6	185	10.4	145	10.1	274	2.1	54	0.7	212		
Aug.	22.0	110	12.0	289	2.9	199	1.2	75	23.3	208	18.2	49	8.2	241	0.8	316	8.1	146	9.3	275	3.2	91	1.1	264		
Sept.	20.2	87	8.2	267	2.7	150	1.1	1	18.5	218	12.5	17	6.4	218	2.8	75	8.3	167	7.6	269	2.9	97	1.0	315		
Oct.	20.1	84	9.5	268	4.6	154	1.0	342	14.6	233	12.1	23	6.5	235	3.2	63	9.8	185	5.8	274	2.3	89	1.7	301		
Nov.	13.9	66	7.5	254	2.7	135	1.7	349	10.9	241	8.3	4	3.3	234	3.2	45	7.3	170	3.3	273	1.3	115	0.8	284		
Dec.	7.6	29	3.3	264	2.4	138	1.0	197	11.5	254	7.1	343	0.6	242	1.8	76	8.7	159	3.3	239	0.4	292	0.7	275		
Year	15.0	92	8.3	268	2.0	141	0.5	66	16.6	216	11.4	23	5.3	222	1.8	57	8.8	152	6.8	270	2.0	62	1.0	276		
Winter	9.7	57	5.5	247	2.4	134	0.1	344	11.1	244	7.8	354	2.4	207	2.5	45	8.7	164	3.4	264	1.1	80	0.9	265		
Equinox	18.7	89	9.4	265	3.5	133	0.9	344	18.1	218	12.9	22	7.6	216	2.8	62	8.5	155	7.6	267	3.0	89	1.4	269		
Summer	18.6	113	10.6	282	0.8	219	1.5	102	22.6	201	15.1	38	6.1	234	0.4	137	9.6	139	9.5	275	2.1	74	0.9	269		
International Quiet Days																										
Year	12.9	95	8.4	268	2.2	128	0.7	11	14.5	204	11.1	29	5.8	229	1.8	51	6.1	103	5.6	272	2.2	92	1.0	270		
Winter	7.8	74	7.1	254	2.2	112	0.7	18	7.4	219	6.3	3	3.4	226	2.3	36	3.1	129	2.8	263	1.1	101	0.8	268		
Equinox	16.9	88	9.6	264	3.6	116	1.2	330	16.9	200	13.1	24	8.1	220	2.8	50	7.5	96	6.5	269	3.2	94	1.5	266		
Summer	15.1	111	9.1	264	1.6	162	0.9	59	19.7	202	15.0	45	6.3	243	0.7	108	8.2	102	7.7	279	2.4	87	0.8	255		
International Disturbed Days																										
Year	20.1	91	9.6	279	2.6	190	0.2	235	23.8	233	12.2	11	4.6	203	2.2	74	23.2	180	10.1	277	2.0	41	1.3	300		
Winter	19.3	25	4.3	249	4.1	158	3.2	228	20.1	254	11.1	352	2.6	160	2.6	63	22.2	166	7.0	258	2.4	354	1.3	324		
Equinox	23.8	93	11.0	278	5.0	173	1.3	192	18.2	234	12.3	5	7.0	194	2.8	77	25.7	191	10.3	277	3.8	62	1.3	323		
Summer	29.0	119	12.7	266	3.1	261	3.0	98	28.5	213	13.9	29	4.9	233	1.4	92	22.1	178	12.7	266	0.9	28	1.7	274		

TABLE X.- RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1938.

Month and Season	"All" Days			Quiet Days			Disturbed Days			"All" Days			Quiet Days			Disturbed Days		
	D	I	H	D	I	H	D	I	H	X	Y	Z	X	Y	Z	X	Y	Z
			Y			Y			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
January	7.24	1.33	19.2	5.60	1.06	18.8	...	...	...	20.7	37.2	21.3	18.0	28.9	11.0	...	...	...
February	7.39	1.95	29.0	8.02	1.50	29.4	9.04	5.83	61.4	33.7	37.4	25.3	31.0	41.1	17.4	66.5	46.7	68.4
March	11.34	1.72	33.9	12.36	2.34	44.2	18.48	3.46	52.2	37.6	59.2	30.4	46.0	65.2	27.4	59.0	92.2	59.4
April	14.94	2.64	51.1	14.36	2.31	46.0	13.60	3.46	68.0	53.3	78.2	37.0	45.1	75.9	31.0	67.1	69.1	54.0
May	12.60	2.01	42.6	11.15	1.55	34.3	17.20	3.59	54.7	42.1	66.9	40.2	36.1	57.3	32.4	53.6	87.9	90.8
June	12.55	2.87	53.1	12.60	2.52	45.0	13.10	4.17	79.8	48.7	68.6	31.8	43.9	67.5	28.8	74.4	73.3	42.2
July	13.12	2.76	53.6	14.40	2.38	42.6	12.90	5.49	92.2	51.7	68.8	37.5	42.9	77.0	32.6	88.3	69.0	59.6
August	14.18	3.20	55.9	11.98	3.24	53.4	15.26	4.11	69.0	56.2	75.9	34.8	53.9	64.7	22.2	70.7	82.0	54.2
September	11.41	2.56	41.3	12.22	2.38	41.6	15.98	5.70	67.0	44.5	60.0	26.7	43.9	64.0	22.4	74.2	79.2	101.0
October	10.11	2.97	45.1	9.94	2.43	42.2	13.84	5.56	69.8	50.6	52.6	25.6	45.3	51.1	17.4	77.4	68.2	82.2
November	6.88	2.20	34.1	6.18	2.13	35.4	12.34	4.81	55.6	37.5	33.6	17.5	36.5	32.2	11.0	60.6	63.2	40.8
December	6.30	1.74	18.8	3.98	0.97	16.8	13.76	7.12	78.6	21.0	32.7	19.3	17.5	20.6	6.6	76.5	77.1	68.8
Mean for Year	10.67	2.33	39.8	10.23	2.07	37.5	14.14	4.85	68.0	41.5	55.9	29.0	38.3	53.8	21.7	69.8	73.4	65.6
Winter	6.95	1.81	25.3	5.95	1.42	25.1	11.71	5.92	65.2	28.2	35.2	20.9	25.8	30.7	11.5	67.9	62.3	59.3
Equinox	11.95	2.47	42.9	12.22	2.37	43.5	15.48	4.55	64.3	46.5	62.5	29.9	45.1	64.1	24.7	69.4	77.2	74.2
Summer	13.11	2.71	51.3	12.53	2.42	43.8	14.62	4.34	73.9	49.7	70.1	36.1	44.2	66.6	29.0	71.8	78.1	61.7

TABLE XI.- NON-CYCLIC CHANGE (24<sup>h</sup> - 0<sup>h</sup>)

Month 1938	"All" Days			Quiet Days			Disturbed Days		
	Declination West	Horizontal Intensity	Vertical Intensity	Declination West	Horizontal Intensity	Vertical Intensity	Declination West	Horizontal Intensity	Vertical Intensity
		Y	Y		Y	Y		Y	Y
January	-0.05	-2.1	+0.7	+0.48	+9.2	+0.6	...	...	...
February	-0.11	+1.7	-0.8	-0.28	+5.6	-1.2	-1.02	-15.4	+4.0
March	+0.17	+0.3	-0.0	+0.12	+4.2	-3.6	+1.34	-12.4	+6.6
April	+0.01	+0.3	+0.1	+0.18	+2.0	-1.0	+1.00	-9.2	+2.0
May	-0.08	-0.4	+0.3	+0.04	+4.2	-1.0	-0.66	-22.4	-10.2
June	+0.03	+0.9	-0.3	+0.42	+4.8	+0.2	+0.08	-7.2	-1.4
July	+0.33	-0.7	+0.5	-0.14	0.0	-1.6	+1.16	-15.4	+8.6
August	+0.00	+0.5	-0.3	+0.72	+6.4	-1.0	-0.46	-11.4	+3.4
September	-0.25	-2.4	-0.4	+0.02	+8.0	-2.4	+1.64	-8.2	+5.6
October	+0.14	+1.7	+0.8	-0.50	+1.0	-1.0	+2.32	+0.2	+8.0
November	+0.02	+0.2	-0.0	+0.52	+3.8	-0.8	-1.36	-14.8	+4.0
December	-0.48	+0.1	+0.0	+0.14	+4.6	-1.2	-2.88	-30.8	+16.8
Year 1938	-	-	-	+0.14	+4.5	-1.2	+0.10	-12.3	+4.0

TABLE XII.- MEAN MONTHLY AND ANNUAL VALUES OF TERRESTRIAL MAGNETIC ELEMENTS AT THE ABINGER MAGNETIC STATION.

Month 1938.	Declination West		Inclination.		Intensity				
					Horizontal	North	West	Vertical	Total
January .. ..	11	5.0	66	44.2	.18508	.18163	.03558	.43052	.46862
February .. ..	11	4.8	66	43.7	.18514	.18169	.03558	.43047	.46860
March .. ..	11	4.7	66	43.1	.18520	.18175	.03559	.43040	.46856
April .. ..	11	3.5	66	43.0	.18520	.18176	.03552	.43037	.46853
May .. ..	11	2.2	66	43.1	.18522	.18179	.03546	.43044	.46860
June .. ..	11	1.7	66	42.0	.18536	.18194	.03546	.43040	.46862
July .. ..	11	1.1	66	42.6	.18531	.18189	.03542	.43050	.46869
August .. ..	11	0.6	66	42.9	.18527	.18186	.03538	.43051	.46868
September .. ..	10	59.2	66	43.3	.18520	.18181	.03530	.43048	.46863
October .. ..	10	58.8	66	43.9	.18516	.18177	.03527	.43059	.46871
November .. ..	10	58.0	66	43.5	.18522	.18184	.03524	.43061	.46876
December .. ..	10	57.1	66	43.7	.18522	.18185	.03519	.43067	.46881
Year 1938	11	1.4	66	43.2	.18522	.18180	.03542	.43050	.46865

TABLE XIII. - DAILY MEAN VALUE OF THE BASE-LINE OF THE DECLINATION MAGNETOGRAMS AT ABINGER MAGNETIC STATION.

Day	January	February	March	April	May	June	July	August	September	October	November	December
	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /	o /
1	10. 46.1	10. 49.7	10. 44.8	10. 40.2	10. 40.3	10. 39.9	10. 39.5	10. 39.5	10. 39.3	10. 39.2	10. 39.3	10. 39.3
2	46.6	49.4	45.3	39.9	40.3	39.9	39.4	39.5	39.2	39.3	39.5	39.2
3	46.4	49.5	34.5	39.8	40.4	40.1	39.3	39.7	39.3	39.4	39.6	39.4
4	46.1	49.7	34.2	39.8	40.5	39.8	39.4	40.0	39.1	39.4	39.3	39.4
5	46.2	49.8	34.3	39.7	40.3	40.0	39.3	40.2	39.1	39.3	39.4	39.3
6	46.1	49.8	34.6	39.9	40.3	39.8	39.5	40.3	39.1	39.4	39.2	39.2
7	46.6	49.7	34.3	39.6	40.4	39.8	39.4	40.0	39.1	39.5	39.1	39.1
8	46.8	49.5	34.2	39.7	40.4	39.7	39.4	40.0	39.1	39.6	39.3	39.2
9	46.9	49.6	33.9	40.1	40.1	39.7	39.7	40.2	39.5	39.5	39.4	39.1
10	46.8	49.9	34.1	40.4	40.2	39.9	39.9	40.2	39.7	39.5	39.5	39.0
11	46.7	49.6	34.1	40.6	40.2	39.8	39.9	40.1	39.6	39.5	39.4	39.1
12	46.8	49.4	34.3	40.5	40.5	39.8	39.8	39.8	39.8	39.5	39.1	39.0
13	47.5	49.2	34.2	-	40.3	39.8	39.8	39.9	39.5	39.9	39.6	39.0
14	47.6	48.9	34.2	40.8	40.2	39.6	39.8	39.7	39.7	39.4	39.3	39.3
15	47.7	49.0 43.8	34.2	40.6	40.2	39.8	39.6	39.8	39.7	39.5	39.2	38.9
16	47.6	44.2	33.9	40.6	40.1	39.9	40.0	39.7	39.5	39.5	39.3	39.0
17	47.9 47.1	44.5	34.1	40.6	40.1	39.7	39.7	39.5	39.2	39.5	39.3	38.9
18	46.6	44.3	33.9	40.5	39.9	39.7	39.8	39.4	39.3	39.4	39.3	39.0
19	46.6	44.6	33.8	40.7	40.1	39.7	39.8	39.5	39.4	39.4	39.3	39.2
20	46.7	44.8	34.1	40.4	39.8	39.8	39.7	39.3	39.5	39.4	39.2	39.1
21	46.7	44.9	33.9	40.0	39.9	39.8	39.9	39.4	39.7	39.4	39.3	39.3
22	46.9	45.4	34.2	40.6	39.9	39.8	39.8	39.3	39.5	39.3	39.4	39.8
23	47.1	45.2	33.9	40.7	39.9	39.8	39.7	39.5	39.6	39.5	39.1	39.8
24	47.2	45.2	34.0	40.6	39.9	39.8	39.7	39.5	39.7	39.4	39.4	39.6
25	47.1	45.0	34.0	40.8	40.0	39.4	39.7	39.5	39.6	39.4	39.6	39.7
26	46.9	44.8	38.8	40.1	40.0	39.3	39.7	39.5	39.7	39.5	39.5	39.5
27	46.7 49.7	44.6	39.1	40.3	39.9	39.4	39.5	39.5	39.4	39.3	39.6	39.4
28	49.1	44.9	38.8 39.6	40.1	39.5	39.3	39.8	39.3	39.3	39.3	39.4	39.6
29	49.7		39.6 40.1	40.3	40.0	39.5	39.6	39.2	39.5	39.3	39.4	39.5
30	49.5		40.3	40.2	40.0	39.5	39.6	39.6	39.3	39.3	39.4	39.4
31	49.6		40.1		40.1		39.4	39.6		39.2		39.5

TABLE XIV.- RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF HORIZONTAL INTENSITY FROM OBSERVATIONS MADE WITH THE SCHUSTER-SMITH COIL MAGNETOMETER IN THE MAGNETIC PAVILION AT ABINGER, WITH THE DEDUCED VALUES OF THE BASE-LINE OF THE HORIZONTAL INTENSITY MAGNETOGRAMS.

Universal Time			No. Observed	Deduced	Universal Time			No. Observed	Deduced	Universal Time			No. Observed	Deduced					
			of Horizontal	Value of				of Horizontal	Value of				of Horizontal	Value of					
			Obs. Intensity	Base-line				Obs. Intensity	Base-line				Obs. Intensity	Base-line					
h	m	s	Y	Y	h	m	s	Y	Y	h	m	s	Y	Y					
Jan.	1.	12 52-12 57	4	18533	18594	Feb.	7.	10 23-10 32	6	18507	18651	Mar.	24.	10 52-11 3	8	18433	18341		
	3.	10 30-10 43	8	18528	18594			19 25-19 30	4	18510	18652		25.	10 54-11 4	8	18482	18342		
	4.	10 35-10 48	8	18533	18596		8.	10 19-10 29	6	18515	18650		26.	12 28-12 40	8	18485	18426		
	5.	10 41-10 57	8	18517	18594			12 56-13 0	4	18522	18645		28.	16 42-16 54	8	18529	18426		
	6.	10 32-10 44	8	18528	18595			19 1-19 6	4	18467	18646		29.	14 32-14 47	8	18531	18399		
	7.	10 36-10 48	8	18526	18596		9.	10 26-10 34	6	18474	18649		30.	10 38-10 50	8	18484	18394		
	8.	12 25-12 35	8	18504	18596			15 50-15 54	4	18501	18648		31.	10 31-10 43	8	18481	18390		
	10.	10 30-10 41	8	18517	18596		10.	10 21-10 33	8	18493	18644								
		16 48-16 56	6	18529	18597			16 54-16 59	4	18492	18644								
	11.	10 19-10 29	8	18530	18597		11.	10 21-10 33	8	18485	18645		April	1.	10 42-10 53	8	18498	18386	
		19 44-19 49	4	18527	18596			16 45-16 51	4	18484	18645			2.	10 32-10 43	8	18503	18385	
	12.	10 36-10 48	8	18528	18597		12.	10 19-10 27	6	18524	18646			4.	16 46-16 58	8	18528	18382	
	13.	10 34-10 46	8	18496	18594			20 39-20 45	4	18512	18645			5.	10 33-10 43	8	18493	18382	
		15 44-15 51	4	18499	18595		13.	10 48-10 55	6	18474	18644			6.	14 35-14 47	8	18499	18380	
	14.	10 34-10 45	8	18504	18596			19 59-20 5	4	18534	18645			7.	10 21-10 32	8	18500	18381	
		17 4-17 12	6	18527	18596		14.	10 20-10 29	6	18494	18645			8.	10 25-10 36	8	18483	18381	
	15.	10 27-10 38	8	18517	18597			16 0-16 7	6	18455	18644			9.	12 29-12 41	8	18499	18380	
		16 33-16 38	4	18523	18596		15.	10 40-10 52	8	18483	18645			11.	15 51-16 2	8	18513	18378	
	16.	10 54-10 59	4	18506	18595			16 46-16 52	4	18502	18426			12.	9 27- 9 45	8	18510	18378	
		10 28-10 35	4	18502	18597			10 29-10 42	8	18479	18426				15 41-15 52	8	18518	18377	
		19 59-20 3	4	18465	18559		17.	10 32-10 44	8	18496	18426			13.	9 14- 9 26	8	18512	18379	
	18.	10 34-10 46	8	18452	18560			9 48-10 2	8	18509	18427				11 54-12 5	8	18508	18381	
		15 48-16 0	6	18493	18559		18.	10 28-10 40	8	18513	18425				15 44-15 57	8	18548	18379	
	19.	10 35-10 46	8	18463	18557			10 27-10 39	8	18520	18426			14.	13 58-14 9	8	18459	18376	
		16 54-17 0	4	18492	18558		21.	16 47-16 56	6	18528	18426				15 11 16-11 28	8	18463	18375	
	20.	10 30-10 44	8	18495	18557			9 58-10 13	8	18528	18425			18.	8 55- 9 3	6	18479	18377	
		18 44-18 49	4	18506	18558		22.	9 54-10 7	8	18529	18425			19.	16 17-16 23	4	18524	18376	
	21.	10 32-10 44	8	18440	18558			10 7-10 20	8	18515	18426			20.	10 38-10 49	8	18475	18380	
		16 49-16 55	4	18485	18558		23.	10 3-10 16	8	18519	18425				13 37-13 49	8	18510	18377	
	22.	12 15-12 29	8	18371	18556			10 56-13 6	8	18515	18427			21.	8 57- 9 4	6	18493	18376	
	24.	10 18-10 30	8	18528	18557		25.	9 53-10 5	8	18521	18426				15 18-15 26	6	18514	18377	
		16 43-16 51	6	18496	18557		26.	10 57-10 8	8	18495	18428			22.	9 54-10 6	8	18499	18375	
	25.	10 24-10 33	6	18488	18561		March	1.	9 57-10 8	8	18495	18428			14 17-14 30	8	18522	18375	
		16 52-17 0	6	18491	18561			3.	15 50-16 3	8	18520	18329			9 36- 9 48	8	18462	18375	
	26.	9 43- 9 52	6	18437	18566			4.	10 32-10 44	8	18513	18329			25.	15 16-15 28	8	18523	18373
		18 28-18 36	6	18504	18567			5.	10 19-10 31	8	18536	18329			26.	18 45-18 59	6	18545	18375
	27.	10 20-10 30	8	18487	18570			7.	9 54-10 4	8	18517	18330			27.	9 32- 9 43	8	18496	18375
		14 35-14 40	4	18496	18653			8.	10 36-10 48	8	18508	18329			28.	9 41- 9 53	8	18498	18373
	28.	10 50-10 59	8	18495	18654			9.	10 22-10 34	8	18523	18331			29.	11 31-11 42	8	18503	18373
	29.	10 27-10 34	4	18493	18653			10.	15 48-16 0	8	18522	18359			30.	10 40-10 52	8	18504	18372
	30.	11 37-11 43	4	18507	18653			11.	11 9-11 14	4	18517	18363		May	2.	14 44-14 56	8	18524	18373
	31.	10 21-10 31	6	18529	18653			12.	12 47-12 52	4	18521	18366			3.	9 44- 9 56	8	18483	18374
		14 54-15 0	4	18521	18653			14.	10 39-10 49	8	18514	18367			4.	9 42- 9 53	8	18490	18373
Feb.	1.	10 28-10 36	6	18497	18653			16.	16 28-16 40	8	18527	18367			5.	9 31- 9 43	8	18498	18372
	2.	10 23-10 35	8	18515	18653			17.	10 37-10 47	8	18492	18367			6.	9 26- 9 43	8	18496	18373
	3.	10 14-10 20	4	18500	18652			18.	14 46-14 58	8	18524	18344			7.	9 38- 9 49	8	18512	18373
		12 46-12 52	4	18501	18652			19.	10 34-10 44	8	18487	18344			9.	15 23-15 35	8	18530	18372
		17 1-17 7	4	18515	18652			17.	10 34-10 44	8	18487	18344			10.	9 40- 9 51	8	18524	18371
	4.	10 21-10 31	6	18512	18653			18.	14 36-14 48	8	18527	18344			11.	15 26-15 39	8	18560	18372
		17 3-17 9	4	18520	18652			19.	10 34-10 45	8	18503	18344			12.	15 32-15 44	8	18483	18372
	5.	10 16-10 21	4	18504	18652			21.	14 51-14 57	4	18521	18343			13.	9 54-10 3	8	18464	18372
		16 40-16 45	4	18526	18653			22.	12 38-12 49	8	18452	18342			14.	9 40- 9 51	8	18477	18370
	6.	10 31-10 37	4	18479	18655			23.	11 44-11 55	8	18467	18343			16.	15 6-15 18	8	18492	18373
		17 51-17 56	4	18479	18649									17.	9 37- 9 49	8	18473	18371	

Feb. 15. A magnetograph of the Copenhagen (La Cour) type was substituted for that hitherto in use. (See Introduction p. v)

Mar. 3. The magnetograph was transferred to a permanent site in the recording chamber.

Breaks in the columns, other than those occurring at the end of each month, signify changes of Base-line values.

TABLE XIV. - RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF HORIZONTAL INTENSITY FROM OBSERVATIONS MADE WITH THE SCHUSTER-SMITH COIL MAGNETOMETER IN THE MAGNETIC PAVILION AT ABINGER, WITH THE DEDUCED VALUES OF THE BASE-LINE OF THE HORIZONTAL INTENSITY MAGNETOGRAMS - *continued.*

Universal Time				No. Observed Deduced of Horizontal Value of Obs. Intensity Base-line		Universal Time				No. Observed Deduced of Horizontal Value of Obs. Intensity Base-line		Universal Time				No. Observed Deduced of Horizontal Value of Obs. Intensity Base-line					
h m s				Y	Y	h m s				Y	Y	h m s				Y	Y				
May	18.	9 28-	9 41	8	18496	18371	July	19.	9 0-	9 12	8	18497	18448	Sept.	22.	13 31-	13 43	8	18503	18437	
	19.	15 25-	15 38	8	18534	18372		20.	9 39-	9 50	8	18520	18449		23.	8 53-	9 4	8	18514	18440	
	20.	9 18-	9 30	8	18513	18371		21.	8 56-	9 7	8	18527	18450		24.	9 42-	9 51	8	18498	18440	
		10 54-	10 59	4	18514	18373		22.	9 29-	9 39	8	18513	18448		26.	16 11-	16 23	8	18458	18440	
	21.	9 24-	9 44	8	18522	18371			13 32-	13 45	8	18524	18446		27.	8 53-	9 5	8	18469	18439	
	23.	15 12-	15 23	8	18542	18370		23.	9 44-	9 53	8	18499	18447		28.	8 51-	9 19	16	18458	18439	
	24.	14 42-	14 52	8	18516	18369		25.	8 55-	9 7	8	18503	18448		29.	9 0-	9 12	8	18499	18440	
	25.	14 8-	14 17	8	18531	18370		26.	9 45-	9 56	8	18520	18448		30.	8 59-	9 12	8	18504	18438	
	26.	10 41-	10 50	8	18521	18369		27.	8 59-	9 14	8	18506	18447		Oct.	1.	8 50-	9 7	8	18483	18441
	27.	11 20-	11 34	8	18522	18369		28.	9 3-	9 12	8	18510	18448			3.	16 16-	16 29	8	18505	18437
	28.	11 24-	11 37	8	18537	18369		29.	9 10-	9 23	8	18531	18448			4.	10 0-	10 11	8	18482	18437
	30.	15 31-	15 45	8	18508	18368		30.	9 8-	9 20	8	18558	18450				15 57-	16 4	4	18519	18438
	31.	9 37-	9 49	8	18499	18369		Aug.	2.	9 15-	9 24	8	18481			18446	5.	11 40-	11 51	8	18492
June	1.	9 43-	9 53	8	18498	18370	3.		10 24-	10 38	16	18485	18446	6.		10 39-	10 50	8	18505	18436	
	2.	9 37-	9 49	8	18502	18369	4.		9 5-	9 12	6	18426	18450:	7.		9 57-	10 9	8	18496	18437	
	3.	9 24-	9 34	8	18499	18369	5.		9 25-	9 35	8	18467	18447	8.		9 53-	10 5	8	18412	18440	
	4.	9 20-	9 32	8	18503	18369	6.		9 47-	9 57	8	18475	18445	10.		16 28-	16 39	8	18509	18436	
	6.	9 53-	10 3	8	18509	18367	8.		9 34-	9 45	8	18503	18447	11.		10 45-	10 55	8	18488	18439	
	7.	15 42-	15 51	6	18530	18368	9.		8 53-	9 2	8	18505	18446	12.		11 37-	11 49	8	18492	18437	
	8.	8 56-	9 10	8	18509	18368	10.		9 23-	9 32	8	18504	18446	13.		10 42-	10 53	8	18483	18437	
	9.	14 37-	14 51	8	18537	18368	11.		8 50-	9 0	8	18500	18446	14.		11 33-	11 44	8	18485	18436	
		10 33-	10 44	8	18510	18446	12.		7 50-	8 0	6	18472	18448	15.	10 0-	10 12	8	18508	18438		
	11.	10 18-	10 29	8	18505	18445	13.		9 6-	9 18	8	18493	18447	17.	16 37-	16 49	8	18525	18439		
	13.	15 24-	15 40	8	18528	18443	15.		9 42-	9 53	8	18498	18445	18.	10 3-	10 15	8	18517	18438		
	14.	9 49-	9 58	8	18504	18443	16.		10 12-	10 21	8	18501	18446	19.	9 54-	10 6	8	18527	18438		
		15 35-	15 46	8	18528	18445	17.	8 55-	9 8	8	18511	18442	20.	11 35-	11 47	8	18501	18435			
15.	9 44-	9 56	8	18503	18445	18.	8 53-	9 6	8	18511	18444	21.	10 32-	10 43	8	18519	18436				
	13 32-	13 37	4	18538	18444	19.	9 14-	9 23	8	18514	18446	22.	9 53-	10 5	8	18508	18439				
	14 59-	15 4	4	18540	18453	20.	8 50-	9 4	8	18525	18445	24.	14 33-	14 47	8	18489	18437				
16.	9 49-	10 1	8	18512	18454	22.	14 5-	14 18	8	18587	18446	25.	9 58-	10 11	8	18457	18440				
17.	10 18-	10 29	8	18502	18453	23.	8 57-	9 9	8	18506	18445	26.	10 19-	10 29	8	18472	18437				
18.	9 40-	9 51	8	18505	18453	24.	8 58-	9 15	8	18496	18440	27.	9 57-	10 9	8	18483	18438				
20.	16 36-	16 47	8	18555	18452		15 56-	15 58	2	18532	18442	28.	10 6-	10 17	8	18483	18437				
21.	10 29-	10 40	8	18512	18452	25.	9 43-	9 45	2	18478	18440	29.	11 3-	11 15	8	18480	18437				
22.	9 46-	9 57	8	18505	18452		11 1-	11 3	2	18494	18440	31.	11 16-	11 25	8	18507	18435				
23.	9 52-	10 3	8	18512	18453		15 55-	16 0	4	18536	18440										
24.	9 45-	9 57	8	18518	18453	26.	13 58-	14 11	8	18536	18442										
25.	9 48-	9 59	8	18517	18453	27.	8 57-	9 9	8	18482	18443										
27.	16 30-	16 41	8	18540	18451	29.	14 23-	14 34	8	18521	18444										
28.	9 51-	10 2	8	18510	18452	30.	10 43-	10 54	8	18490	18442										
29.	10 38-	10 50	8	18520	18452	31.	13 50-	14 1	8	18515	18442										
30.	9 50-	10 0	8	18494	18452	Sept.	1.	8 33-	8 42	8	18531	18444									
July	1.	9 55-	10 4	8	18480		18452	2.	11 24-	11 33	8	18508	18443								
	2.	9 42-	9 54	8	18494		18453	3.	8 40-	8 50	8	18515	18442								
	4.	16 50-	17 1	8	18550		18452	5.	15 29-	15 42	8	18526	18443								
	5.	9 38-	9 49	8	18500		18452	6.	8 54-	9 6	8	18507	18442								
	6.	10 33-	10 44	8	18501		18450	7.	9 22-	9 32	8	18513	18442								
	7.	9 39-	9 51	8	18507		18451	8.	8 59-	9 11	8	18502	18441								
	8.	9 52-	10 3	8	18518		18451	9.	10 26-	10 39	8	18512	18440								
	9.	8 50-	9 2	8	18520		18450	10.	10 29-	10 38	8	18504	18440								
	11.	13 34-	13 46	8	18514		18449	12.	10 53-	11 6	8	18501	18439								
	12.	8 58-	9 9	8	18504		18450	13.	8 57-	9 9	8	18530	18438								
	13.	10 8-	10 20	8	18526		18450	14.	8 59-	9 14	8	18499	18441								
		13 44-	13 59	8	18536		18449	15.	8 52-	9 4	8	18375	18440								
	14.	8 59-	9 11	8	18481	18449	16.	9 0-	9 14	8	18479	18440									
15.	8 55-	9 7	8	18469	18450	17.	8 53-	9 8	8	18487	18441										
16.	8 54-	9 7	8	18424	18450	19.	10 26-	10 36	8	18493	18439										
18.	15 29-	15 41	8	18527	18448	20.	9 1-	9 15	8	18521	18441										
						21.	8 50-	9 2	8	18519	18437										
						22.	8 56-	9 10	8	18500	18438										

June 14. Temperature raised to 21°0.

October 3. Temperature lowered to 16°0

: Low weight





MAGNETIC OBSERVATIONS, ABINGER 1938.

TABLE XIV (A). - RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF HORIZONTAL INTENSITY FROM OBSERVATIONS MADE WITH THE UNIFILAR MAGNETOMETER CASELLA 181 IN THE TESTING HUTS AT ABINGER, WITH THE DEDUCED VALUES OF THE BASE-LINE OF THE HORIZONTAL INTENSITY MAGNETOGRAMS.

Universal Time	Observed Horizontal Intensity	Deduced Value of Base-line	Universal Time	Observed Horizontal Intensity	Deduced Value of Base-line	Universal Time	Observed Horizontal Intensity	Deduced Value of Base-line
	h m h m	Y		h m h m	Y		h m h m	Y
Jan. 4.	14 42-15 42	18474	July 6.	10 50-11 46	18498	Oct. 28.	14 25-15 19	18499
6.	11 47-12 51	18521	7.	10 37-11 28	18510	29.	9 51-10 48	18478
7.	14 38-15 38	18510	9.	10 49-11 47	18507			
			12.	10 32-11 56	18508			
			14.	11 3-12 0	18514	Nov. 1.	14 33-15 31	18518
March 24.	15 1-16 18	18497	19.	11 2-11 59	18491	2.	11 32-12 26	18512
			20.	10 30-11 24	18511	3.	15 40-16 32	18521
30.	15 16-16 16	18528	21.	10 20-11 7	18517	4.	11 2-11 57	18512
31.	14 31-15 23	18539	22.	8 57-10 3	18513	8.	11 11-12 0	18494
			23.	8 51- 9 52	18498	9.	12 9-12 59	18450
April 1.	14 32-15 31	18533	25.	14 13-15 11	18533	11.	11 31-12 54	18510
2.	11 39-12 50	18515	26.	8 47- 9 45	18515	12.	11 58-12 52	18512
5.	11 8-11 56	18497	27.	10 54-11 50	18521	15.	11 45-12 48	18493
6.	10 27-11 49	18505	28.	8 43- 9 59	18504	16.	11 37-12 49	18511
			29.	10 57-11 57	18527	18.	11 38-12 55	18482
						19.	11 58-12 55	18499
May 26.	14 18-15 17	18547	Aug. 2.	14 44-15 31	18506	22.	11 50-12 49	18490
27.	8 52-10 2	18531	6.	10 40-11 27	18478	23.	11 30-12 53	18502
31.	13 35-14 35	18514	8.	10 14-11 3	18490	24.	11 34-12 34	18501
			9.	10 11-11 4	18492	25.	11 41-12 36	18492
June 1.	10 58-11 55	18506	10.	10 11-11 26	18517	26.	11 50-12 51	18465
2.	10 52-11 57	18497	11.	10 25-11 12	18448	29.	11 37-12 46	18507
3.	10 9-10 58	18519	15.	14 14-15 8	18549	30.	11 32-12 57	18513
9.	13 27-14 23	18532	16.	8 40- 9 31	18507			
			17.	11 3-11 58	18512	Dec. 1.	11 52-12 47	18537
10.	14 39-15 30	18561	18.	10 49-11 50	18499	2.	11 53-12 48	18526
15.	11 4-11 59	18521	19.	8 52-10 18	18512	3.	11 51-12 49	18490
			20.	10 40-11 36	18512	6.	11 31-12 55	18528
17.	10 57-12 1	18512	22.	15 10-15 59	18546	7.	11 48-12 47	18522
21.	11 11-11 59	18506	24.	10 51-11 47	18509	8.	11 48-12 48	18524
22.	10 31-11 57	18518	26.	10 52-11 49	18506	9.	11 56-12 49	18540
24.	10 55-11 45	18543	30.	8 51- 9 53	18493	10.	12 2-12 54	18529
28.	10 56-11 46	18525				13.	11 31-12 53	18513
29.	11 10-11 55	18522	Oct. 25.	14 35-15 44	18492	14.	11 53-12 45	18517
30.	11 9-11 57	18504	27.	11 48-12 49	18444	15.	11 42-12 56	18526
						16.	11 50-12 51	18532
						17.	11 48-12 48	18479

June 14. Temperature raised to 21.0°

Oct. 3. Temperature lowered to 16.0°

: Low weight



TABLE XV. - RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF VERTICAL INTENSITY FROM OBSERVATIONS MADE WITH THE DYE COIL-MAGNETOMETER IN THE MAGNETIC PAVILION AT ABINGER, WITH THE DEDUCED VALUES OF THE BASE-LINE OF THE VERTICAL INTENSITY MAGNETOGRAMS -continued.

Universal Time				No. of Obs.	Observed Vertical Intensity	Deduced Value of Base-line	Universal Time				No. of Obs.	Observed Vertical Intensity	Deduced Value of Base-line	Universal Time				No. of Obs.	Observed Vertical Intensity	Deduced Value of Base-line						
h	m	h	m		Y	Y	h	m	h	m		Y	Y	h	m	h	m		Y	Y						
June	11.	9	16-9	38	6	43022	43248	Aug.	12.	7	27-7	44	6	43060	43288	Oct.	20.	10	48-11	5	8	43047	43294			
		9	52-10	4	4	43017	43244			13.	9	39-9	54	8	43038	43288			10	55-11	19	8	43043	43290		
	12.	9	26-9	39	4	43035	43245		15.	9	10-9	38	8	43045	43294		21.	10	20-10	40	8	43041	43294			
	13.	14	46-15	10	8	43059	43244		16.	9	36-9	58	8	43041	43294		24.	15	25-16	7	8	43080	43293			
	14.	9	13-9	38	8	43040	43242		17.	9	34-10	1	8	43034	43302		25.	10	23-10	51	8	43059	43296			
		14	56-15	16	8	43037	43265		18.	9	36-9	58	8	43048	43301		26.	9	47-10	15	8	43053	43300			
	15.	9	1-9	28	8	43043	43270		19.	9	34-9	52	8	43038	43303		27.	10	21-10	53	8	43049	43295			
		13	48-14	0	4	43030	43275		20.	9	21-9	50	8	43044	43305		28.	11	0-11	30	6	43059	43297			
		14	32-14	50	6	43038	43272		22.	14	29-14	49	8	43057	43304		29.	10	22-10	44	10	43058	43298			
	16.	9	10-9	41	8	43017	43273		23.	9	25-10	0	8	43025	43304		31.	10	52-11	11	8	43042	43291			
	17.	9	37-10	0	8	43030	43274		25.	9	0-9	33	8	43035	43303											
	18.	8	59-9	26	8	43033	43273		26.	9	38-10	0	8	43034	43305											
	20.	16	0-16	25	8	43034	43271		27.	9	25-9	58	8	43043	43305		Nov.	1.	10	37-10	58	8	43048	43295		
	21.	9	14-9	55	8	43020	43270		29.	14	50-15	16	8	43052	43307											
	22.	9	7-9	37	8	43034	43273		30.	11	29-11	53	8	43034	43308											
	23.	9	6-9	46	8	43039	43274		31.	10	30-11	9	10	43033	43305											
	24.	9	7-9	36	8	43028	43276																			
	25.	9	7-9	41	8	43029	43273		Sept.	1.	9	5-9	19	8	43043	43304										
	27.	15	56-16	22	8	43048	43277		2.	10	40-10	56	8	43043	43305											
	28.	9	11-9	43	8	43018	43267		3.	9	0-9	18	8	43040	43302											
	29.	9	12-10	9	8	43029	43277		5.	15	53-16	9	8	43053	43302											
	30.	9	12-9	44	8	43030	43277		6.	9	20-9	46	8	43040	43305											
									7.	8	56-9	17	8	43037	43302											
									8.	9	23-9	54	8	43036	43299											
July	1.	9	3-9	50	8	43018	43274		15	0-15	27	8	43046	43301												
	2.	9	1-9	35	8	43032	43283		9.	10	54-11	27	8	43020	43305											
	4.	16	22-16	44	8	43064	43276		10.	9	24-10	15	9	43034	43305											
	5.	8	58-9	30	8	43046	43280		12.	11	31-11	59	8	43024	43301											
	6.	9	32-9	57	8	43038	43286		13.	9	27-10	0	8	43041	43304											
	7.	9	4-9	27	8	43041	43285		14.	9	37-10	4	4	43044	43300											
	8.	9	16-9	45	8	43054	43289																			
	9.	9	13-9	48	8	43045	43289		15.	9	43-10	8	8	43046	43299											
	11.	14	4-14	28	8	43044	43287		16.	10	20-10	48	8	43047	43303											
	12.	9	19-9	56	8	43030	43290		17.	9	21-9	53	8	43053	43302											
		17	27-17	53	8	43063	43294		19.	10	2-10	21	8	43046	43304											
	13.	9	18-9	41	8	43033	43290		20.	9	40-10	1	8	43040	43307											
	14.	9	24-9	53	8	43028	43287		21.	9	15-10	0	8	43046	43307											
	15.	9	24-9	54	8	43032	43289		22.	9	25-9	53	8	43036	43304											
	16.	9	23-9	50	8	43052	43291		23.	9	23-10	4	8	43047	43306											
	18.	15	51-16	14	8	43062	43290		24.	9	8-9	34	10	43044	43309											
	19.	9	26-9	58	8	43053	43290		26.	16	36-17	3	8	43106	43308											
	20.	9	8-9	34	8	43051	43290		27.	9	28-10	3	8	43046	43304											
	21.	9	13-9	29	8	43039	43281		28.	9	42-10	7	8	43058	43307											
		14	38-15	1	7	43055	43288		29.	9	27-9	59	8	43049	43305											
	22.	9	0-9	25	8	43053	43294		30.	9	24-10	0	8	43050	43306											
		13	56-14	11	4	43043	43284																			
	23.	9	2-9	40	12	43049	43294		Oct.	1.	9	23-9	57	8	43055	43308										
	25.	9	20-9	44	8	43039	43290																			
		13	55-14	6	5	43041	43290																			
		15	39-16	0	8	43056	43290																			
	26.	10	52-11	30	8	43030	43287		3.	16	41-17	5	8	43065	43292											
	27.	9	27-9	56	8	43031	43286		4.	10	33-11	4	8	43043	43293											
	28.	8	35-8	58	8	43032	43289																			
		15	30-15	49	8	43052	43290		5.	10	36-11	9	8	43042	43295											
	29.	9	38-9	59	8	43021	43294		6.	9	52-10	24	10	43047	43292											
	30.	10	35-11	8	8	43041	43293																			
									7.	15	0-15	25	8	43056	43289											
Aug.	2.	9	35-10	1	8	43063	43296		8.	10	32-10	58	8	43049	43292											
	3.	9	37-9	58	8	43049	43289		10.	10	18-10	19	4	43078	43287											
	4.	9	30-9	53	8	43058	43294		11.	9	59-10	40	10	43046	43291											
	5.	8	58-9	19	8	43045	43291																			
	6.	9	11-9	29	8	43051	43295		16	4-16	22	6	43085	43290												
	8.	9	5-9	24	8	43049	43296		12.	10	41-11	3	8	43049	43290											

TABLE XV(A). - DAILY VALUE OF THE BASE-LINE OF THE VERTICAL INTENSITY MAGNETOGRAMS AT THE ABINGER MAGNETIC STATION, DEDUCED FROM OBSERVATIONS OF MAGNETIC DIP MADE WITH THE EARTH INDUCTOR.

Day	January	February	March	April	May	June	July	August	September	October	November	December
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	-	43212	43245	43247	-	43246	43283	-	43304	43314	43305	43312
2	-	212	-	251	43252	247	285	43297	302	-	306	312
3	-	212	243	-	250	244	-	296	304	-	303	308
4	-	217	249	244	250	250	279:	293	-	43294	301	-
5	-	-	249	250	250	-	284	297	312	300	304	314
6	43208	-	-	247	249	246	289	291	308	292	-	306
7	213	216	243	241	248	251	290	-	314	294	-	309
8	212	218	247	242	-	248	292	308	298	301	311	316
9	-	218	239	243	254	249	294	304	315	292	311	303
10	202	203	244	-	253	249	-	302	316	302	309	304
11	214	203	249	253	246	243	294	298	-	-	321	-
12	208	203	248	254	248	-	294	301	310	305	314	306
13	210	-	-	-	256	246	302	307	309	292	-	307
14	209	209	250	-	259	275	291	-	305	298	312	319
15	207	206	253	-	-	279	297	312	309	300	309	305
16	-	-	253	-	247	280	290	306	314	-	309	308
17	-	-	252	-	249	283	-	310	312	301	308	300
18	-	-	254	-	245	279	294	305	-	303	307	-
19	203	43247	257	260	244	-	295	312	312	304	314	305
20	204	-	-	-	250	284	299	308	309	305	-	309
21	206	249	247	-	251	283	297	-	314	301	310	314
22	-	248	252	262:	-	280	294	305	319	311	318	318
23	-	249	249	252	251	286	296	317	315	-	313	314
24	214	248	252	-	238	281	-	-	318	298	311	-
25	209	249	245	250	239	279	298	-	-	309	312	-
26	204	247	252	-	-	-	296	305	316	309	316	-
27	217	-	-	248	247	281	303	314	312	300	-	-
28	193	249	247	246	249	280	302	-	318	302	310	317
29	217	-	246	245	-	283	302	309	310	311	316	316
30	-	-	242	248	253	277	308	308	298	-	315	312
31	214	-	250	-	250	-	-	305	-	304	-	318

June 14. Temperature raised to 21.0°      October 3. Temperature lowered to 16.0°      : Low Weight.

An adjustment of the bearings of the axis of the rotating coil was made on February 17, March 18, June 25, August 4, September 28 and December 1.

MEAN ANNUAL VALUES OF MAGNETIC ELEMENTS DETERMINED AT THE ROYAL OBSERVATORY, GREENWICH,  
BETWEEN THE YEARS 1818 - 1925.

Year	Declination West	Horizontal Intensity	Vertical Intensity	Dip	Year	Declination West	Horizontal Intensity	Vertical Intensity	Dip
	° ' †	C.G.S.Unit	C.G.S.Unit	° ' †		° ' †	C.G.S.Unit	C.G.S.Unit	° ' †
1818	24 19 †	..	..	..	1882	18 22.3	0.1806	0.4375	67 34.2
1819	24 21	..	..	..	1883	18 15.0	0.1812	0.4381	67 31.7
1820	24 21	..	..	..	1884	18 7.6	0.1814	0.4379	67 29.7
1841	23 16.2	..	..	..	1885	18 1.7	0.1817	0.4380	67 28.0
1842	23 14.6	..	..	..	1886	17 54.5	0.1818	0.4377	67 27.1
1843	23 11.7	..	..	69 0.6	1887	17 49.1	0.1819	0.4380	67 26.6
1844	23 15.3	..	..	69 0.3	1888	17 40.4	0.1822	0.4383	67 25.6
1845	22 56.7	..	..	68 57.5	1889	17 34.9	0.1823	0.4380	67 24.3
1846	22 49.6	0.1731	..	68 58.1	1890	17 28.6	0.1825	0.4381	67 23.0
1847	22 51.3	0.1736	..	68 59.0	1891	17 23.4	0.1827	0.4380	67 21.5
1848	22 51.8	0.1731	..	68 54.7	1892	17 17.4	0.1829	0.4379	67 20.0
1849	22 37.8	0.1733	..	68 51.3	1893	17 11.4	0.1831	0.4373	67 17.9
1850	22 23.5	0.1738	..	68 46.9	1894	17 4.6	0.1831	0.4374	67 17.4
1851	22 18.3	0.1744	..	68 40.4	1895	16 57.4	0.1834	0.4378	67 16.1
1852	22 17.9	0.1745	..	68 42.7	1896	16 51.7	0.1835	0.4382	67 15.1
1853	22 10.1	0.1748	..	68 44.6	1897	16 45.8	0.1838	0.4377	67 13.5
1854	22 0.8	0.1749	..	68 47.7	1898	16 39.2	0.1840	0.4377	67 12.1
1855	21 48.4	0.1756	..	68 44.6	1899	16 34.2	0.1843	0.4380	67 10.5
1856	21 43.5	0.1759	..	68 43.5	1900	16 29.0	0.1846	0.4380	67 8.8
1857	21 35.4	0.1769	..	68 31.1	1901	16 26.0	0.1850	0.4381	67 6.4
1858	21 30.3	0.1762	..	68 28.3	1902	16 22.8	0.1852	0.4377	67 3.8
1859	21 23.5	0.1761	..	68 26.9	1903	16 19.1	0.1852	0.4368	67 1.2
1860	21 14.3	..	..	68 30.1	1904	16 15.0	0.1854	0.4359	66 57.6
1861	21 5.5	0.1773	..	68 24.6	1905	16 9.9	0.1854	0.4355	66 56.3
1861		0.1759	..	68 15.8	1906	16 3.6	0.1854	0.4353	66 55.6
1862	20 52.6	0.1763	0.4403	68 9.6	1907	15 59.8	0.1855	0.4357	66 56.2
1863	20 45.9	0.1764	0.4396	68 7.0	1908	15 53.5	0.1854	0.4356	66 56.3
1864	..	0.1767	0.4393	68 4.1	1909	15 47.6	0.1854	0.4348	66 54.1
1865	20 33.9	0.1767	0.4388	68 2.7	1910	15 41.2	0.1855	0.4345	66 52.8
1866	20 28.0	0.1773	0.4397	68 1.3	1911	15 33.0	0.1855	0.4342	66 52.1
1867	20 20.5	0.1777	0.4392	67 57.2	1912	15 24.3	0.1855	0.4340	66 51.8
1868	20 13.1	0.1779	0.4395	67 56.5	1913	15 15.2	0.1853	0.4333	66 50.5
1869	20 4.1	0.1782	0.4396	67 54.8	1914	15 6.3	0.1853	0.4333	66 50.8
1870	19 53.0	0.1784	0.4392	67 52.5	1915	14 56.5	0.1851	0.4331	66 51.6
1871	19 41.9	0.1786	0.4389	67 50.3	1916	14 46.9	0.1848	0.4326	66 52.2
1872	19 36.8	0.1789	0.4383	67 47.8	1917	14 37.1	0.1848	0.4330*	66 53.0
1873	19 33.4	0.1793	0.4386	67 45.8	1918	14 27.8	0.1846	0.4325	66 52.8
1874	19 28.9	0.1797	0.4387	67 43.6	1919	14 18.2	0.1845	0.4324	66 53.3
1875	19 21.2	0.1797	0.4383	67 42.4	1920	14 8.6	0.1845	0.4325	66 53.6
1876	19 8.3	0.1799	0.4383	67 41.0	1921	13 57.6	0.1845	0.4322	66 53.0
1877	18 57.2	0.1800	0.4381	67 39.7	1922	13 46.7	0.1844	0.4318	66 52.3
1878	18 49.3	0.1802	0.4382	67 38.2	1923	13 35.1	0.1843	0.4314	66 51.9
1879	18 40.5	0.1805	0.4382	67 37.0	1924	13 22.8	0.1843	0.4311	66 51.6
1880	18 32.6	0.1805	0.4380	67 35.7	1925	13 9.9	0.1841	0.4308	66 51.4
1881	18 27.1	0.1807	0.4379	67 34.7					

In 1818, 1819 and 1820 numerous observations of Declination were made with a Dollond needle.

In 1861 new Unifilar Apparatus for absolute Horizontal Intensity and the Airy Dip-Circle were introduced, both sets of apparatus being used in that year. In 1864 the excavation of the Magnetic Basement caused a suspension of Declination Observations. From 1914 the Dip was determined with an Inductor.

N.B.- In the above table the values of Vertical Intensity for the years 1862-1913 inclusive were computed from the corresponding values of Horizontal Intensity and Dip, the values of Dip being the mean of all the absolute observations taken in any year, and the time of observation approximating to noon on the average. Beginning with 1914 the values of Dip have been computed from the corresponding annual mean values of Horizontal and Vertical Intensity.

† Mean of seven months June to December.

\* Mean of ten months, March to December.

MEAN ANNUAL VALUES OF MAGNETIC ELEMENTS DETERMINED AT THE ABINGER MAGNETIC STATION,  
FOR THE YEARS 1925-1938.

Year	Declination West	Horizontal Intensity	Vertical Intensity	Inclination
	° ' "	C.G.S.Unit	C.G.S.Unit	° ' "
1925	13 22.7	0.18597	0.42946	66 35.1
1926	13 10.4	0.18581	0.42947	66 36.3
1927	12 58.4	0.18575	0.42932	66 36.2
1928	12 47.0	0.18564	0.42941	66 37.3
1929	12 35.8	0.18555	0.42918	66 37.2
1930	12 24.6	0.18542	0.42924	66 38.2
1931	12 13.7	0.18543	0.42923	66 38.1
1932	12 2.6	0.18536	0.42940	66 39.1
1933	11 51.7	0.18532	0.42942	66 39.4
1934	11 41.1	0.18533	0.42955	66 39.7
1935	11 30.3	0.18527	0.42981	66 40.9
1936	11 20.0	0.18524	0.43007	66 41.8
1937	11 10.4	0.18522	0.43031	66 42.7
1938*	11 1.4	0.18522	0.43050	66 43.2

The values of Inclination are computed from the corresponding values of horizontal and vertical intensity.

Commencing with the years 1927 and 1929 respectively, the values of horizontal and vertical intensity are based upon observations with Coil-magnetometers.

\* Discontinuities of  $-1.7\gamma$  in H and  $-3.9\gamma$  in Z were introduced in 1938. See Introduction p.viii.

## MAGNETIC DISTURBANCES.

The following notes briefly summarise, month by month, the magnetic conditions exhibited by the traces of Declination, Horizontal Intensity and Vertical Intensity recorded at the Abinger Magnetic Station in the year 1938.

**January.** - Conditions were unsteady during the first four days. At 4<sup>d</sup> 13<sup>h</sup> - 15<sup>h</sup> there was a temporary decrease in H (100γ) accompanied by an increase in Z (50γ). A short quiet spell followed, lasting from 5<sup>d</sup> 11<sup>h</sup> to 6<sup>d</sup> 12<sup>h</sup>. Unsteadiness then returned and had developed to the dimensions of a small disturbance by 7<sup>d</sup> 15<sup>h</sup>. Several movements occurred exceeding 10' in D and 50γ in H during the next twelve hours, after which nearly quiet conditions again prevailed until 12<sup>d</sup> 16<sup>h</sup>. The period from 12<sup>d</sup> 16<sup>h</sup> to 13<sup>d</sup> 8<sup>h</sup> was moderately disturbed, with ranges of nearly 30' in D and 150γ in H, and a slow fluctuation in Z (±50γ). From 13<sup>d</sup> 12<sup>h</sup> conditions were, on the whole, quiet with a few isolated movements until the outbreak of the first of the three great storms for which the month was remarkable. This storm began with a sudden movement in all traces at 16<sup>d</sup> 22<sup>h</sup> 35<sup>m</sup> and lasted for about twenty four hours. The traces are reproduced in Plate I. Considerable unsteadiness persisted after the main storm had subsided, - at intervals reaching the dimensions of moderate disturbance. Periods of greatest disturbance were: 18<sup>d</sup> 15<sup>h</sup> to 19<sup>d</sup> 3<sup>h</sup>, 19<sup>d</sup> 16<sup>h</sup> - 19<sup>h</sup>, 21<sup>d</sup> 21<sup>h</sup> to 22<sup>d</sup> 5<sup>h</sup>. The disturbance during the last of these periods merged abruptly into the second great storm of the month at about 22<sup>d</sup> 5<sup>h</sup> 25<sup>m</sup>. The traces of the storm are reproduced in Plate II. Between the subsidence of this storm at 22<sup>d</sup> 22<sup>h</sup> and the commencement of the third and greatest there was much unsteadiness with occasional movements in D exceeding 10'. The third storm began suddenly at 25<sup>d</sup> 11<sup>h</sup> 50<sup>m</sup>, causing large movements in all traces. During its later and final stages it was accompanied by an aurora of exceptional brilliance and complexity. The traces are reproduced in Plate III. From 26<sup>d</sup> 6<sup>h</sup> conditions were markedly unsteady, but large movements were few. There were, however, two short periods of active disturbance before the month closed, the first, from 29<sup>d</sup> 20<sup>h</sup> - 24<sup>h</sup>, containing a movement of 20' in D; the second, from 31<sup>d</sup> 19<sup>h</sup> 15<sup>m</sup> to 22<sup>h</sup>, having the characteristics of the onset of a great storm (with sudden commencement at 19<sup>h</sup> 24<sup>m</sup>) but dying out, after ranges of 35' in D and 150γ in H, with almost equal suddenness.

The range in declination during the month was from 10° 3'9" on 25th to 12° 9'4" on the same day; in horizontal intensity, from .17685 on 26th to .18752 on 16th; in vertical intensity, from .42737 on 26th to .43306 on 25th.

**February.** - The traces showed many irregularities during the first five days, with occasional prominent peaks amounting to 10' in D and more than 50γ in H. At 6<sup>d</sup> 3<sup>h</sup> 8<sup>m</sup> an abrupt movement in all traces preceded a period of greatly increased disturbance. Notable movements occurred at 5<sup>h</sup> (a rapid decline in Z, 35γ) at 16<sup>h</sup> (a recovery in Z, with a large bay in H, - 100γ) and at 19<sup>h</sup> (a wave in D, - 25'), but the chief characteristic was the rapidity with which minor movements succeeded one another. After a temporary lull the disturbance was resumed with even greater activity at 8<sup>d</sup> 16<sup>h</sup> and continued till 10<sup>d</sup> 14<sup>h</sup>. The largest movements occurred between 8<sup>d</sup> 20<sup>h</sup> and 22<sup>h</sup>, the range approaching 200γ in H and 30' in D, while in Z there was a rapid increase of 120γ between 8<sup>d</sup> 15<sup>h</sup> and 18<sup>h</sup> followed by an irregular decline terminating about 9<sup>d</sup> 0<sup>h</sup>. A further short outbreak between 11<sup>d</sup> 0<sup>h</sup> and 10<sup>h</sup> was recorded, after which a nearly quiet period set in lasting until 13<sup>d</sup> 0<sup>h</sup>. Unsteadiness of the rapid oscillatory type noted above began during the evening of 13th. It increased during 14th to a minor disturbance, which however quickly died out so that by 15<sup>d</sup> 0<sup>h</sup> nearly quiet conditions again prevailed. These lasted for eight days. Unsteadiness gradually increased after 23<sup>d</sup> 0<sup>h</sup> reaching a maximum during the evening of 25th and remaining at an active stage during the rest of the month. The movements occasionally reached 10' in D and 50γ in H.

The range in declination during the month was from 10° 43'6" to 11° 17'8" both on 8th; in horizontal intensity, from .18422 to .18607 both on 8th; in vertical intensity, from .42996 on 10th to .43153 on 8th.

March. - The month opened with considerable activity in progress. This had developed during the late evening of Feb. 28 with movements of 15' in D and 50γ in H. It declined somewhat after 2<sup>d</sup> 0<sup>h</sup> and the period from 3<sup>d</sup> 6<sup>h</sup> to 4<sup>d</sup> 18<sup>h</sup> was relatively quiet. Disturbance then set in, characterised by many oscillatory movements in H and D accompanied by a general increase in D amounting to 35' (between 5<sup>d</sup> 16<sup>h</sup> and 20<sup>h</sup>) and a slow surge in Z between 5<sup>d</sup> 12<sup>h</sup> and 24<sup>h</sup>, the rise being 125γ. Movements rapidly subsided after 6<sup>d</sup> 6<sup>h</sup>. From 8<sup>d</sup> 0<sup>h</sup> to 11<sup>d</sup> 20<sup>h</sup> conditions were nearly quiet. Unsteadiness - sometimes oscillatory - then became general until 16<sup>d</sup> 0<sup>h</sup>, though without prominent movements. The ensuing quiet period ended at 21<sup>d</sup> 11<sup>h</sup> when renewed unsteadiness rapidly attained the dimensions of a minor disturbance. Movements were rapid between 22<sup>d</sup> 6<sup>h</sup> and 14<sup>h</sup> and markedly oscillatory during the remainder of the disturbance. Prominent bays are seen in H at 23<sup>d</sup> 9<sup>h</sup> (-100γ), 20<sup>h</sup> (+120γ) and 23<sup>h</sup> (-100γ); in D at 23<sup>d</sup> 23<sup>h</sup> (-15'); in Z at 23<sup>d</sup> 23<sup>h</sup> (-60γ) and 24<sup>d</sup> 3<sup>h</sup> (-50γ). There was, in addition, a slow fluctuation in Z, namely a rise of 50γ between 23<sup>d</sup> 13<sup>h</sup> and 20<sup>h</sup> succeeded by an oscillatory decline of 110γ until 24<sup>d</sup> 3<sup>h</sup> and then by gradual recovery to normal. A further short period of activity occurred between 25<sup>d</sup> 18<sup>h</sup> and 26<sup>d</sup> 4<sup>h</sup>. Ranges were 80γ in H, 15' in D and 50γ in Z, the last being due to a slow downward surge between 26<sup>d</sup> 0<sup>h</sup> and 4<sup>h</sup>. Thereafter a gradual return to quiet conditions took place and these lasted with little interruption until the end of the month.

The range in declination during the month was from 10° 38'.9 on 24th to 11° 26'.7 on 5th; in horizontal intensity, from .18390 on 23rd to .18635 on 21st; in vertical intensity, from .42949 on 24th to .43147 on 5th.

April. - There was general unsteadiness of traces in varying degree until 6<sup>d</sup> 6<sup>h</sup>, after which a rapid decline in H (80γ) was followed by a short period of increased activity ending at 7<sup>d</sup> 16<sup>h</sup>. A further period of more active movement began at 11<sup>d</sup> 10<sup>h</sup>. An abrupt increase in H at 12<sup>d</sup> 19<sup>h</sup> 55<sup>m</sup> appeared to be the initial stage of a considerable disturbance, which however did not develop until 13<sup>d</sup> 11<sup>h</sup>. From that time until 15<sup>d</sup> 5<sup>h</sup> all traces showed lively activity. The movements were distinguished for rapidity rather than range and this was especially the case between 14<sup>d</sup> 8<sup>h</sup> and 10<sup>h</sup> when the registration almost failed at times on account of rapid movement. The disturbance, which is reproduced in Plate IV, comprised ranges of 30' in D, 175γ in H and 80γ in Z. Conditions remained rather unsteady until 16<sup>d</sup> 5<sup>h</sup> 46<sup>m</sup> when, with a typical "sudden commencement" movement in all traces, an intense disturbance began which proved to be one of the most violent ever recorded by instruments of the Royal Observatory, and indeed the only one in which movements of comparable extent have been registered photographically. The disturbance was, however, relatively short-lived. After 16<sup>d</sup> 8<sup>h</sup> the movements, though still rapid, were of greatly diminished extent and they had virtually ceased by 16<sup>h</sup>. The extreme ranges during the disturbance were 307' in D, 1377γ in H and 499γ in Z. The traces are reproduced as far as practicable in Plate V. Horizontal intensity remained well below normal value from the conclusion of the storm until 17<sup>d</sup> 11<sup>h</sup> after which it rapidly recovered. During the next few days many irregular movements took place with occasional tendency to rapid oscillation. The most active periods were 17<sup>d</sup> 15<sup>h</sup> to 18<sup>d</sup> 3<sup>h</sup> and 22<sup>d</sup> 12<sup>h</sup> to 23<sup>d</sup> 23<sup>h</sup>. The last four days of the month were nearly quiet.

The range in declination during the month was from 9° 10'.9 to 14° 17'.7; in horizontal intensity, from .17435 to .18812; in vertical intensity, from .42714 to .43213, - all on 16th.

May. - Slight unsteadiness at the beginning of the month increased during 2nd and 3rd. On 3rd there were movements of 50γ in H and a surge of +75γ in Z between 12<sup>h</sup> and 24<sup>h</sup>. On 4th a state of minor disturbance culminated with a steep wave in H at 15<sup>h</sup> (+160γ) preceded by a general rise in Z (80γ). The traces showed many irregularities during the following two days but quiet conditions gradually supervened and lasted from 7<sup>d</sup> 0<sup>h</sup> to 9<sup>d</sup> 12<sup>h</sup>. Continuous small erratic movements then appeared, - to be lost suddenly in a storm of great intensity which began at 11<sup>d</sup> 15<sup>h</sup> 53<sup>m</sup>. This storm was comparable with, though not so violent as, that of January 25-26, and comprised ranges of a similar order of magnitude. They were 79' in D, 960γ in H and 420γ in Z, compared with 125', 1056γ and 569γ respectively in the January storm. The most active stage terminated about 12<sup>d</sup> 0<sup>h</sup>. It was accompanied by a bright aurora which was visible in full moonlight. The traces are reproduced in Plate VI. Considerable activity was still displayed until 13<sup>d</sup> 3<sup>h</sup>, there being movements up to 120γ in H and 25' in D together with a range of 160γ in Z between 12<sup>d</sup> 16<sup>h</sup> and 24<sup>h</sup>. Another period of marked activity began at 14<sup>d</sup> 8<sup>h</sup>. Activity persisted with steadily diminishing intensity until about 18<sup>d</sup> 0<sup>h</sup>. The most conspicuous features were: an increase in Z (100γ) between 14<sup>d</sup> 11<sup>h</sup> and 14<sup>h</sup> together with a wave in H (+120γ); oscillation of a more or less regular character in all



traces between 14<sup>h</sup> 10<sup>m</sup> and 15<sup>h</sup> 18<sup>m</sup>, with several waves exceeding 50γ in H and 10' in D in the mid-night hours of 14th; and a temporary decrease in Z (60γ) between 14<sup>d</sup> 22<sup>h</sup> and 15<sup>d</sup> 6<sup>h</sup>. Conditions remained relatively quiet from 18<sup>d</sup> 0<sup>h</sup> to 24<sup>d</sup> 12<sup>h</sup>. At 24<sup>d</sup> 15<sup>h</sup> there was a sharp temporary increase in H (100γ) followed by oscillatory unsteadiness until 25<sup>d</sup> 6<sup>h</sup>. No further significant movements were recorded until 28<sup>d</sup> 6<sup>h</sup> when great unsteadiness developed, more particularly in H. This culminated in two steep waves in H, +90γ at 29<sup>d</sup> 13<sup>h</sup> and +120γ at 29<sup>d</sup> 16<sup>h</sup>, the period between 29<sup>d</sup> 10<sup>h</sup> and 22<sup>h</sup> showing also a slow surge in Z (+100γ). Only minor irregularities appeared on the remaining days.

The range in declination during the month was from 9° 59'·3 on 11th to 11° 19'·4 on 14th; in horizontal intensity, from ·17913 to ·18873, both on 11th; in vertical intensity, from ·42749 to ·43169, both on 11th.

June. - A minor disturbance took place between 2<sup>d</sup> 14<sup>h</sup> and 3<sup>d</sup> 2<sup>h</sup> in which movements did not exceed 60γ in H. A period of slight general unsteadiness followed, lasting until 7<sup>d</sup> 22<sup>h</sup>. At 7<sup>d</sup> 22<sup>h</sup> 1<sup>m</sup> an abrupt movement of +95γ in H accompanied by small movements in the other two traces was the beginning of a further disturbance, not of large ranges but comprising numerous rapid oscillations. These diminished to general unsteadiness again after about 36 hours, an unsteadiness which became increasingly pronounced during 11th and 12th. At 12<sup>d</sup> 17<sup>h</sup> 55<sup>m</sup> a singularly close repetition of the conditions of 7<sup>d</sup> - 8<sup>d</sup> began, including the abrupt movement in H and the rapid oscillation which followed. The disturbance ceased at 14<sup>d</sup> 3<sup>h</sup>. The ensuing days were not notable for any distinctive movements. The degree of unsteadiness varied, being greatest on 16th and 21st and least between 23<sup>d</sup> 0<sup>h</sup> and 24<sup>d</sup> 12<sup>h</sup> - when conditions were practically quiet.

The range in declination during the month was from 10° 48'·5 on 13th to 11° 12'·8 on 2nd; in horizontal intensity, from ·18451 on 8th to ·18644 on 7th; in vertical intensity, from ·43000 on 18th to ·43085 on 10th.

July. - Unsteadiness on 1st and 2nd abated during 3rd and the first half of 4th. At 4<sup>d</sup> 12<sup>h</sup> 1<sup>m</sup> a disturbance began abruptly, lasting until about 5<sup>d</sup> 6<sup>h</sup>. In the active stages, i.e. between 4<sup>d</sup> 13<sup>h</sup> and 5<sup>d</sup> 1<sup>h</sup>, oscillatory changes in intensity were prominent and occurred in rapid succession. Several reached 100γ in H, but in Z the range was not great. A disturbance of about thirty hours duration developed rapidly from 9<sup>d</sup> 20<sup>h</sup>. Again the changes in H were much more pronounced than in the other elements, - and a wave of +120γ was recorded at 10<sup>d</sup> 18<sup>h</sup>. Slight irregularities only were shown between 11<sup>d</sup> 1<sup>h</sup> and 13<sup>d</sup> 12<sup>h</sup>. Activity then steadily increased until at 15<sup>d</sup> 7<sup>h</sup> a considerable disturbance was in progress. At first H decreased 100γ and then by means of large oscillatory movements increased nearly 200γ. This rise was accompanied by a similar increase in Z, the maximum values occurring in each component at 15<sup>d</sup> 17<sup>h</sup>. An oscillatory decline in intensity followed, minimum values being reached at 16<sup>d</sup> 1<sup>h</sup> in the case of Z and at 16<sup>d</sup> 9<sup>h</sup> in the case of H. The movements in D, though numerous, seldom reached 15'. The disturbance rapidly waned after 16<sup>d</sup> 3<sup>h</sup> and with a short-lived revival at 16<sup>d</sup> 19<sup>h</sup> ceased before midnight. The traces are reproduced in Plate VII. A series of nearly quiet days followed, on most of which however, some irregularities appeared in the traces. The series came to an end on 29th, when after considerable unsteadiness a minor disturbance developed from 30<sup>d</sup> 4<sup>h</sup>. A marked temporary decrease in H (120γ), lasting from 30<sup>d</sup> 6<sup>h</sup> to 15<sup>h</sup>, was the most prominent feature of this disturbance. Quiet conditions returned soon after midnight and prevailed throughout 31st.

The range in declination during the month was from 10° 45'·8 to 11° 18'·2, both on 15th; in horizontal intensity, from ·18405 on 16th to ·18659 on 10th; in vertical intensity, from ·43005 on 14th and 29th to ·43168 on 15th.

August. - Conditions during the early part of the month were generally rather disturbed. Movements up to 60γ in H and 15' in D occurred on 1st and 2nd, while the diurnal range in Z exceeded 100γ. Between 3<sup>d</sup> 21<sup>h</sup> and 4<sup>d</sup> 1<sup>h</sup> there were large ranges in all elements, namely 250γ in H, 120γ in Z and 32' in D. Disturbance continued actively throughout 5th and 6th and then gradually moderated to a state of general unsteadiness. At 10<sup>d</sup> 3<sup>h</sup> 20<sup>m</sup> a small abrupt movement in all traces preceded a period of increasing activity. Activity reached a maximum between 11<sup>d</sup> 10<sup>h</sup> and 20<sup>h</sup>, when several approximately regular waves in H exceeded 50γ and Z showed an upward surge of nearly 150γ. There

was also a corresponding variation in D ( $-20'$ ). Almost quiet conditions were recorded from  $13^d 6^h$  to  $21^d 12^h$ . Irregularities then began to appear and at  $22^d 13^h 52^m$  a brisk disturbance was announced by a typical "sudden commencement" movement in all traces. The extent of this movement corresponded to  $148\gamma$  in H,  $48\gamma$  in V and  $9'$  in D. The subsequent ranges hardly reached the scale indicated by the commencement - the largest being in H and not much exceeding  $100\gamma$  - but the disturbance was remarkable for a short series of very rapid oscillations in its concluding stage. These occurred between  $14^h 15^m$  and  $14^h 40^m$  on 23rd and reached  $140\gamma$  in H. Plate VIII illustrates the major part of the disturbance. From  $24^d$  to  $28^d$  only minor irregularities were shown. Unsteadiness then increased considerably but did not reach the dimensions of a "disturbance" in the remaining days.

The range in declination during the month was from  $10^\circ 41'.9$  on 3rd to  $11^\circ 20'.0$  on 11th; in horizontal intensity from  $\cdot 18390$  on 24th to  $\cdot 18699$  on 3rd; in vertical intensity, from  $\cdot 42970$  on 3rd to  $\cdot 43147$  on 11th.

**September.** - During the first ten days only minor irregularities disturbed the traces. They were sufficiently numerous, however, to prevent any day, except perhaps 6th, being classified as quiet. From 11th larger isolated movements occurred and on the night of 13th there was a sudden outbreak of activity lasting from  $13^d 18\frac{1}{2}^h$  to  $14^d 5^h$ . This included several movements of about  $100\gamma$  in H and one of  $25'$  in D. After a short quiet interval activity commenced again at  $14^d 15\frac{1}{2}^h$  and steadily developed until a storm of moderate dimensions was in progress. The earlier stages were characterised by a series of regular oscillations in D and H each occupying about half an hour. Later the movements became large and irregular. There was a range of  $200\gamma$  in H between  $15^d 4\frac{1}{2}^h$  and  $9^h$  and at  $15^d 20\frac{1}{2}^h$ , near the end of the disturbance, a movement of  $180\gamma$  in the same element. Similar movements in D were accompanied by an unusually large variation in Z which decreased  $200\gamma$  between  $14^d 17\frac{1}{2}^h$  and  $15^d 3^h$  and then increased  $230\gamma$  by  $15^d 15\frac{1}{2}^h$ , after which it declined to normal values. (See Plate IX). The disturbance had virtually ceased by  $16^d 4^h$ , but all traces still remained subject to frequent minor irregularities during succeeding days. There was a sudden "kick" in each trace at  $23^d 4^h 36^m$  suggestive of the onset of a storm. Nothing happened, however, beyond a few small oscillations in H. Conditions became disturbed, generally, during 26th. There were movements up to  $80\gamma$  in H and one of  $20'$  in D. At  $27^d 28^h$  activity abruptly intensified. Large movements in H and D, with ranges of  $280\gamma$  and  $32'$  respectively, were accompanied by a fluctuating decrease in Z ( $160\gamma$ ). Z steadily recovered after  $28^d 3^h$  and the movements in the other traces changed in character to relatively small oscillations of very short period. These persisted on a declining scale throughout 29th. A further period of activity began at  $30^d 12^h$ . The largest movement was one of  $200\gamma$  in H at  $20\frac{1}{2}^h$ . This was accompanied by a wave movement of  $-28'$  in D and  $-70\gamma$  in Z.

The range in declination during the month was from  $10^\circ 23'.9$  to  $11^\circ 18'.8$ , both on 15th; in horizontal intensity, from  $\cdot 18356$  on 15th to  $\cdot 18659$  on 27th; in vertical intensity, from  $\cdot 42919$  on 28th to  $\cdot 43185$  on 15th.

**October.** - The concluding stages of a brisk disturbance were in progress when the month began and during the first few days there was considerable unsteadiness in all traces. Conditions were, however, practically quiet on 5th. At  $7^d 6^h 14^m$  a sudden small movement in H occurred which appeared to be the first sign of an approaching storm. The storm rapidly developed after  $7^d 14^h$ , though Z had already been increasing steadily since noon. The most active periods were  $7^d 16^h - 21^h$  and  $8^d 4^h - 7^h$ . Several waves approaching  $150\gamma$  in H and reaching  $30'$  in D occurred in the first named period, during which the whole range in D was  $52'$ , while Z reached a value about  $200\gamma$  in excess of the normal. After  $8^d 8^h$  the movements ceased, but H remained below normal value for six or seven hours longer. The traces are reproduced in Plate X. Some unsteadiness persisted until the end of 13th; then a short quiet interval occurred. Unsteadiness was resumed at  $16^d 1^h$  and continued in varying degree until the end of 23rd, when movements became distinctly larger and a state of minor disturbance supervened. The largest movements occurred during 26th, but did not exceed  $100\gamma$  in H or  $15'$  in D. After 27th there was a gradual decline in activity, so that 30th and 31st were almost quiet.

The range in declination during the month was from  $10^\circ 35'.9$  to  $11^\circ 27'.3$  both on 7th; in horizontal intensity, from  $\cdot 18362$  on 8th to  $\cdot 18614$  on 25th; in vertical intensity, from  $\cdot 42974$  on 1st to  $\cdot 43252$  on 7th.

November. - The first seven days of the month were quiet. A period of considerable activity began about 8<sup>d</sup> 12<sup>h</sup> and lasted until 10<sup>d</sup> 4<sup>h</sup> during which movements up to 20' in D and 75γ in H occurred. A second quiet interval ended at 14<sup>d</sup> 13<sup>h</sup> 57<sup>m</sup> with a small sudden movement in all traces which was followed three hours later by a brief spell of activity without notable features. A further quiet period lasted from 15<sup>d</sup> 3<sup>h</sup> to 17<sup>d</sup> 12<sup>h</sup>. Active movements then began to show in all traces, but the ranges were not large and after about twelve hours had diminished to an extent which left only a general unsteadiness. This unsteadiness markedly increased from 21<sup>d</sup> 11<sup>h</sup> to 22<sup>h</sup> and again during the second half of 24th. Nothing approaching the dimensions of a disturbance occurred, however, and nearly quiet conditions returned on 28th.

The range in declination during the month was from 10° 41'·5 on 8th to 11° 13'·4 on 14th; in horizontal intensity, from ·18429 on 9th to ·18585 on 16th; in vertical intensity, from ·43029 on 9th to ·43119 on 14th.

December. - A short period of activity, during which there was a range of 35' in D, lasted from 2<sup>d</sup> 15<sup>h</sup> to 3<sup>d</sup> 6<sup>h</sup> and was followed by a similar occurrence about a day later. Practically quiet conditions then became established until 9<sup>d</sup> 16<sup>h</sup>. Slight unsteadiness of an oscillatory type was succeeded by a brisk disturbance between 10<sup>d</sup> 15<sup>h</sup> and 22<sup>h</sup>. The ranges were 22' in D, 130γ in H, and 90γ in Z. General unsteadiness continued to prevail and after 16<sup>d</sup> 15<sup>h</sup> rapidly increased. A state of minor disturbance existed from 16<sup>d</sup> 17<sup>h</sup> to 19<sup>d</sup> 0<sup>h</sup>, during which several movements up to 15' in D and 75γ in H were recorded. From 20th unsteadiness decreased gradually while periods of quiet conditions frequently occurred. By 24th these were definitely established, and continued to the end of the year.

The range in declination during the month was from 10° 36'·8 on 2nd to 11° 12'·8 on 3rd, in horizontal intensity, from ·18391 on 18th to ·18584 on 17th; in vertical intensity, from ·43038 on 18th and 22nd to ·43151 on 10th.

The absolute maximum and minimum values respectively of the elements recorded during the year were:

Declination: 14° 17'·7 on April 16th; 9° 10'·9 on April 16th.  
 Horizontal intensity: ·18873 on May 11th; ·17435 on April 16th.  
 Vertical intensity: ·43306 on January 25th; ·42714 on April 16th.

NOTE: Some of the tracings are taken from the La Cour Magnetograms and some from the Cambridge. This introduces *differences of sense and of scale.*

ROYAL OBSERVATORY, GREENWICH.

Results of  
Meteorological Observations

1938

MONTH and DAY 1938	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years							Highest in Sun's Rays	Lowest on the Grass				
Jan. 1	30.175	43.2	37.9	5.3	40.7	+ 2.1	38.8	36.1	4.6	6.2	2.3	83	47.4	35.7	45.2	0.015	0.0	7.9
2	30.236	43.8	38.8	5.0	40.6	+ 2.2	39.3	37.5	3.1	5.7	1.7	88	52.9	33.9	45.0	0.020	0.0	7.9
3	30.304	40.9	32.3	8.6	35.2	- 3.1	33.3	29.8	5.4	7.2	2.5	81	40.0	29.0	45.0	0.022	0.0	8.0
4	30.140	43.0	34.1	8.9	38.5	+ 0.2	36.9	34.5	4.0	5.7	1.0	85	45.1	31.4	45.0	0.017	0.0	8.0
5	30.138	41.5	35.1	6.4	38.7	+ 0.5	36.8	33.8	4.9	7.3	3.1	82	43.3	30.8	44.9	0.010	0.0	8.0
6	29.939	42.2	38.8	3.4	40.7	+ 2.6	38.5	35.2	5.5	7.7	3.0	80	45.5	34.0	44.9	0.034	0.0	8.0
7	29.370	46.1	38.3	7.8	42.8	+ 4.8	40.6	37.4	5.4	10.0	2.0	81	56.6	32.1	44.8	0.000	2.7	8.1
8	29.221	45.9	36.7	9.2	41.3	+ 3.4	40.0	38.3	3.0	5.8	1.1	89	59.6	30.4	44.8	0.027	0.3	8.1
9	28.752	45.4	35.6	9.8	41.6	+ 3.7	39.7	37.0	4.6	10.2	1.1	83	54.4	30.1	44.7	0.066	1.6	8.1
10	28.757	39.6	34.5	5.1	37.7	- 0.2	36.4	34.4	3.3	6.0	1.7	88	44.8	30.6	44.5	0.117	0.6	8.1
11	29.348	46.8	32.0	14.8	40.8	+ 2.9	39.6	38.0	2.8	5.7	1.1	89	50.3	27.9	44.7	0.049	0.0	8.2
12	29.484	53.9	43.2	10.7	48.5	+ 10.6	47.0	45.3	3.2	7.7	0.4	89	59.9	36.9	44.7	0.199	0.0	8.2
13	29.594	52.9	42.6	10.3	48.7	+ 10.7	47.2	45.5	3.2	8.1	1.0	89	61.0	39.5	44.7	0.492	0.0	8.2
14	29.687	52.8	41.3	11.5	46.1	+ 8.1	44.7	43.0	3.1	5.7	1.9	89	52.9	35.1	44.8	0.063	0.0	8.3
15	29.216	52.1	43.2	8.9	47.9	+ 9.8	43.7	38.2	9.7	15.2	3.2	69	60.7	36.9	44.9	0.072	0.3	8.3
16	29.451	53.6	41.8	11.8	48.0	+ 9.7	46.3	44.4	3.6	7.5	1.8	87	54.9	35.8	44.9	0.194	0.0	8.4
17	29.616	53.5	36.4	17.1	45.0	+ 6.5	42.0	37.8	7.2	9.9	3.8	76	59.9	28.5	45.1	0.040	4.2	8.4
18	29.749	49.0	34.2	14.8	40.9	+ 2.3	39.4	37.4	3.5	9.8	1.1	87	56.0	27.2	45.0	0.028	0.0	8.4
19	29.661	49.1	43.2	5.9	46.0	+ 7.3	43.0	39.1	6.9	14.0	2.2	77	75.3	35.0	45.3	0.000	5.2	8.5
20	30.002	51.8	45.0	6.8	48.4	+ 9.6	45.6	42.3	6.1	9.7	3.1	79	64.1	41.0	45.1	0.000	0.1	8.5
21	30.067	50.2	41.2	9.0	48.0	+ 9.2	46.1	43.9	4.1	7.7	1.4	85	54.8	33.2	45.2	0.020	0.0	8.6
22	30.260	49.4	37.4	12.0	44.3	+ 5.5	43.0	41.4	2.9	5.7	2.0	89	59.4	28.8	45.1	0.000	1.0	8.6
23	30.332	50.8	45.5	5.3	48.8	+ 9.9	46.6	44.2	4.6	6.9	1.8	83	59.7	40.1	45.2	0.004*	2.6	8.7
24	30.308	54.8	43.4	11.4	49.2	+ 10.3	45.8	41.7	7.5	12.5	3.2	75	84.9	37.4	45.2	0.000	5.4	8.7
25	30.038	49.1	38.8	10.3	45.4	+ 6.3	42.6	38.8	6.6	12.7	2.8	78	57.2	32.1	45.3	0.103	0.9	8.8
26	29.767	47.6	36.9	10.7	41.0	+ 1.7	38.7	35.2	5.8	12.8	2.3	80	74.7	31.0	45.5	0.129	3.0	8.8
27	29.654	41.3	33.7	7.6	37.4	- 2.1	34.9	30.3	7.1	12.6	3.3	76	55.8	29.0	45.3	0.000	1.7	8.9
28	29.457	52.8	34.7	18.1	46.0	+ 6.4	44.2	42.0	4.0	6.2	1.8	86	60.2	30.5	45.4	0.081	0.0	8.9
29	29.231	52.7	38.1	14.6	44.5	+ 4.8	40.2	33.7	10.8	18.5	4.7	66	66.1	34.7	45.0	0.293	4.6	9.0
30	29.411	47.2	37.1	10.1	42.0	+ 2.3	39.1	34.6	7.4	13.1	1.4	75	54.0	31.9	45.0	0.213	0.5	9.0
31	29.490	51.6	39.4	12.2	47.6	+ 7.9	46.0	44.2	3.4	6.2	0.9	88	60.2	33.0	45.1	0.128	0.0	9.1
Means	29.705	48.2	38.4	9.8	43.6	+ 5.0	41.5	38.5	5.1	9.0	2.1	82.3	57.1	33.0	45.0	Sum 2.436	1.1	8.4
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the Autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly Autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

The mean reading of the Barometer for the month was 29.705 in., being 0.096 in. lower than the average for the 65 years, 1841-1905.

\* Rainfall (Column 16). The amount entered on January 23 is derived from dew.

TEMPERATURE OF THE AIR.

The highest in the month was 54.8 on January 24; the lowest in the month was 32.0 on January 11; and the range was 22.8.

The mean of all the highest daily readings in the month was 48.2, being 5.1 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 38.4, being 4.2 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 9.8, being 0.9 greater than the average for the 65 years, 1841-1905. †

The mean for the month was 43.6, being 5.0 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS						CLOUDS AND WEATHER			
	POLARIS		δ URSAE MINORIS		OSLER'S				Robin-son's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot			Horizontal move-ment of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures	0 <sup>h</sup> to 6 <sup>h</sup>		6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>	
Jan. 1	0.0	0.00	0.0	0.00	N	N	2.6	0.37	323	c d <sub>o</sub>	d <sub>o</sub> c Nbst i r <sub>o</sub>	c Stcu	cir	
2	1.5	0.11	1.3	0.09	N:NNE	N:NNE	1.8	0.16	255	c r <sub>o</sub> c m <sub>o</sub>	c Stcu m <sub>o</sub>	c Stcu i r <sub>o</sub> m <sub>o</sub>	c i r c m <sub>o</sub>	
3	0.0	0.00	0.0	0.00	E:NE	Calm	2.8	0.14	215	c r c	c Nbst s <sub>o</sub> m <sub>o</sub>	c Nbst s <sub>o</sub> m	c	
4	5.0	0.36	2.7	0.19	Calm:NNW	N:NE	3.0	0.20	267	c m	c d <sub>o</sub> m	c i r d <sub>o</sub> m	c b c	
5	1.4	0.10	0.7	0.05	NE:Calm	NNW:NW	1.0	0.05	193	c	c Nbst d d <sub>o</sub> m	c d <sub>o</sub> m	c m	
6	3.4	0.25	2.6	0.19	W	WSW:SW	1.0	0.13	280	c m	c Stcu m	c Stcu m	c r	
7	11.8	0.86	10.9	0.79	SW	WSW:W	4.1	0.46	383	c	c b Acu c Stcu	c Stcu r <sub>o</sub> c b	b	
8	0.3	0.02	0.3	0.02	WSW	Calm:SW	1.2	0.05	233	b c	c Acu m	c d m	d m c	
9	6.2	0.47	6.1	0.46	S:WSW	WSW:SW	6.5	0.75	376	c r	r <sub>o</sub> c Cist Acu so-ha	c b Ci c	b lu-ha w c	
10	5.9	0.45	5.3	0.40	SSW:WSW	Calm:NW:W	1.5	0.19	291	c d c	c b c Nbst r <sub>o</sub> m	rs r c m	c bc	
11	0.7	0.05	0.0	0.00	WSW:SW	SW	1.0	0.06	252	bc b	b c Ci c Nbst	c r c Nbst	c i d <sub>o</sub>	
12	2.3	0.17	0.9	0.07	S:SW	WSW:SSW	6.0	0.69	350	c i r d	d <sub>o</sub> c Stcu	c Stcu	c lu-ha d <sub>o</sub>	
13	6.5	0.49	5.9	0.45	SW	SW	6.0	0.91	399	rr c	c St	o r R	r i d bc	
14	2.2	0.16	1.8	0.14	SW:SSW	S:SSW	11.0	0.92	406	b c	c Ast Nbst	c Stcu r <sub>o</sub> r	r r <sub>o</sub> c q	
15	8.4	0.64	7.7	0.58	SSW:SW	WSW	20.0	3.97	656	c r c q	c q r <sub>o</sub> nbst	c Stcu q	c b lu-ha	
16	1.1	0.09	0.8	0.06	SW:SSW	SW	6.0	1.29	475	b lu-ha c r <sub>o</sub>	r <sub>o</sub> rr Nbst	r d d <sub>o</sub> Nbst	d <sub>o</sub> d <sub>o</sub> c	
17	9.7	0.74	7.6	0.58	SW:NW	NW:W:WSW	4.0	0.53	365	c r	c bc Ci m <sub>o</sub>	bc Frcu b m <sub>o</sub>	b x	
18	4.9	0.37	4.5	0.34	SW:SSW	SSW	2.0	0.17	308	b x c	c Acu	c	c d <sub>o</sub> r	
19	2.5	0.19	1.6	0.12	WSW:WNW	W:WSW	4.0	0.47	404	c b	c b Ci m	b Cist Frcu y	c	
20	1.2	0.09	0.4	0.03	SW:WSW	SW	3.7	0.20	345	c	c Ast	c	c	
21	5.6	0.43	2.5	0.19	SW	SW:Calm:NE	2.6	0.18	291	c	c o d <sub>o</sub>	o Ast Nbst d d <sub>o</sub> m	c b m	
22	2.6	0.20	1.5	0.12	Calm	SW:Calm	0.6	0.03	178	b c m	c acu m	c Acu m	c m c	
23	1.7	0.13	1.5	0.12	SW	SW	2.2	0.15	306	c	c b w c Stcu	c Stcu	c	
24	10.9	0.86	10.7	0.84	SW:WSW	WSW:SW	4.2	0.47	415	c b c	c b Cu	b Ci Cu	b w	
25	10.3	0.81	10.2	0.80	SW	WNW:WSW	6.1	0.71	443	b c	c d r Nbst	r c Stcu Frst b	b Aurora	
26	10.2	0.80	9.2	0.73	WSW:SW	SW:W	2.7	0.25	350	b Aurora c	c bc Acu Ast	c rr	c b c	
27	5.8	0.46	3.7	0.29	W:NW	NW:WSW	3.0	0.25	349	c b x	bc Frcu m	bc Frcu c	c b x c	
28	3.2	0.25	2.9	0.23	SW:SSW	WSW	6.0	0.55	445	c rr	rr c Nbst	c	c d <sub>o</sub>	
29	1.8	0.15	1.5	0.12	WNW	WNW:SW	22.0	2.18	593	c r T L R p	c p b Frst	b Frst y q	b c	
30	5.2	0.41	4.3	0.34	SW:NW	WNW:SW	7.6	0.73	418	c r r	c Ci Frst	c Ast Nbst b	b c m <sub>o</sub>	
31	4.5	0.36	4.5	0.36	SSW:SW	SW	15.8	1.00	473	c dd c	c Stcu	c dd <sub>o</sub> c	c q r <sub>o</sub> r	
Means	4.4	0.34	3.7	0.28	...	...	..	0.59	356					
Number of column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31	

The mean *Temperature of Evaporation* for the month was 41°·5, being 4°·3 higher than the average for the 65 years, 1841-1905.

The mean *Temperature of the Dew Point* for the month was 38°·5, being 3°·4 higher than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 82·3, being 4·5 less than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0·234 in., being 0·029 in. greater than the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·8.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·133. The maximum daily amount of *Sunshine* was 5·4 hours on January 24.

The highest reading of the *Solar Radiation Thermometer* was 84°·9 on January 24; and the lowest reading of the *terrestrial Radiation Thermometer* was 27°·2 on January 18.

The *Proportions of Wind* referred to the cardinal points were N. 13, E. 3, S. 31, W. 45, calm or nearly calm conditions, 8; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 22·0 lbs. on the square foot on January 29. The mean daily *Horizontal Movement of the Air* for the month was 356 miles; the greatest daily value was 656 miles on January 15, and the least daily value was 178 miles on January 22.

*Rain* (0·005 in. or over) fell on 24 days in the month, amounting to 2·436 in., as measured by gauge No. 6 partly sunk below the ground; being 0·555 in. greater than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
Feb. 1	29.362	46.2	38.4	7.8	41.3	+ 1.7	37.6	31.7	9.6	16.5	6.0	68	85.1	32.8	44.9	0.000	4.8	9.1
2	29.764	47.2	36.9	10.3	41.7	+ 2.2	38.9	34.5	7.2	8.5	3.3	76	55.8	30.4	44.9	0.007	0.0	9.2
3	30.127	53.3	42.9	10.4	47.6	+ 8.1	44.7	41.1	6.5	14.0	1.8	78	78.2	36.6	45.1	0.001*	0.2	9.2
4	30.264	53.9	44.2	9.7	48.4	+ 8.9	45.1	41.0	7.4	16.9	2.2	75	85.6	37.0	44.9	0.000	1.1	9.3
5	30.113	53.1	39.5	13.6	44.9	+ 5.3	42.2	38.5	6.4	14.7	1.8	78	90.1	30.0	45.0	0.000	4.2	9.4
6	30.189	47.4	34.9	12.5	42.7	+ 3.1	40.8	38.1	4.6	6.7	2.0	84	58.2	27.0	44.8	0.000	0.0	9.4
7	30.231	45.3	39.6	5.7	41.6	+ 2.1	40.3	38.6	3.0	9.2	1.3	89	59.4	38.1	44.9	0.000	0.1	9.5
8	30.065	41.0	38.6	2.4	39.9	+ 0.6	39.2	38.2	1.7	3.6	1.0	93	44.7	37.9	44.7	0.000	0.0	9.5
9	29.987	50.2	39.9	10.3	44.7	+ 5.6	42.9	40.5	4.2	12.6	1.1	85	71.6	32.0	44.8	0.002	2.8	9.6
10	29.871	51.8	38.2	13.6	46.7	+ 7.8	43.3	39.0	7.7	14.4	3.8	74	61.7	32.5	44.8	0.072	0.7	9.7
11	30.317	42.8	33.6	9.2	37.7	- 1.1	33.3	24.5	13.2	17.9	7.8	59	84.4	29.0	44.8	0.000	6.0	9.7
12	29.948	49.6	35.3	14.3	43.2	+ 4.4	38.7	31.4	11.8	18.9	4.6	63	82.0	30.3	44.9	0.025	3.7	9.8
13	30.014	41.0	33.1	7.9	36.2	- 2.8	34.2	30.5	5.7	11.0	1.9	80	79.7	30.4	44.7	0.125	3.6	9.8
14	30.076	36.3	31.2	5.1	33.0	- 6.3	31.6	29.2	3.8	10.8	0.5	85	71.8	27.3	44.3	0.015	2.7	9.9
15	30.083	36.1	32.6	3.5	33.9	- 5.5	32.0	28.3	5.6	9.8	3.3	80	40.4	29.4	44.2	0.043	0.0	10.0
16	30.087	35.8	33.5	2.3	34.5	- 5.0	33.0	30.3	4.2	6.7	2.8	84	38.5	32.3	44.0	0.026	0.0	10.0
17	30.098	37.1	30.7	6.4	34.0	- 5.6	32.9	30.9	3.1	6.5	2.7	89	40.2	25.5	43.8	0.102	0.0	10.1
18	30.201	49.5	30.8	18.7	38.7	- 0.8	35.5	29.9	8.8	24.0	2.3	70	91.0	25.6	43.8	0.000	6.2	10.1
19	30.266	44.1	33.4	10.7	38.0	- 1.5	36.3	33.7	4.3	7.0	2.2	84	61.8	29.0	43.6	0.000	0.9	10.2
20	30.357	41.5	32.3	9.2	37.6	- 1.9	35.8	32.9	4.7	9.1	1.3	83	56.0	28.2	43.3	0.000	1.0	10.3
21	30.293	39.6	35.8	3.8	38.3	- 1.3	36.2	32.8	5.5	7.9	2.8	80	44.2	34.5	43.3	0.000	0.0	10.4
22	30.172	36.7	32.1	4.6	34.9	- 4.8	32.7	28.6	6.3	9.2	3.0	78	43.2	24.1	43.1	0.000	0.0	10.4
23	30.169	44.2	34.8	9.4	38.3	- 1.5	35.7	31.2	7.1	13.9	2.2	75	75.8	30.5	43.0	0.000	4.4	10.5
24	30.148	46.8	30.5	16.3	36.3	- 3.7	34.6	31.7	4.6	13.3	0.0	83	77.8	20.2	43.1	0.003*	5.5	10.5
25	30.085	55.7	30.8	24.9	42.4	+ 2.3	39.8	35.9	6.5	14.6	0.2	78	91.0	20.6	43.0	0.001*	1.4	10.6
26	29.879	56.4	45.5	10.9	49.7	+ 9.5	46.1	41.8	7.9	14.1	2.6	74	101.9	40.1	43.0	0.157	1.6	10.7
27	30.043	50.8	41.6	9.2	46.3	+ 6.0	42.1	36.3	10.0	24.2	2.4	67	90.7	38.1	43.0	0.030	5.5	10.8
28	30.056	53.3	48.7	4.6	50.7	+ 10.4	47.8	44.7	6.0	13.9	2.2	80	74.8	44.9	43.1	0.008	0.1	10.8
Means	30.081	46.0	36.4	9.5	40.8	+ 1.3	38.3	34.5	6.3	13.9	2.5	78.3	69.1	31.2	44.1	0.617	2.0	9.9
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

\* Rainfall (Column 16). The amount entered on February 3 is derived from dew, and those on February 24 and 25 from hoar frost.

The mean reading of the Barometer for the month was 30.081 in., being 0.272 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 56°·4 on February 26; the lowest in the month was 30°·5 on February 24; and the range was 25°·9.

The mean of all the highest daily readings in the month was 46°·0, being 1°·1 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 36°·4, being 1°·7 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 9°·5, being 0°·7 less than the average for the 65 years, 1841-1905. †

The mean for the month was 40°·8, being 1°·3 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			Robin-son's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
hours		hours				lbs.	lbs.	miles					
Feb. 1	12.3	0.98	12.0	0.96	SW	SW:WSW	10.0	1.83	578	c r <sub>o</sub> q b	b Frcu	bc b Frcu	b
2	6.4	0.51	5.8	0.47	WSW	W:SW	1.7	0.20	337	b	c m <sub>o</sub> Stcu Acu	c Acu p b m	b c w
3	5.7	0.46	5.3	0.43	SW:WSW	WSW:SW	1.2	0.17	327	c b w m <sub>o</sub>	b c Ast Acu	c y Acu Ast	c b w
4	5.8	0.47	4.7	0.38	SW	SW:SSW	1.7	0.15	294	b c	c Stcu m <sub>o</sub> b	b c Ast Stcu	c
5	8.1	0.67	8.1	0.67	S:SSW	SSW	1.0	0.07	257	c w	c Cist	c Acu Ci so-ha b	c b w c
6	0.0	0.00	0.0	0.00	SSW:Calm	Calm:NE	0.0	0.00	155	c b x	c m f	c f	c f m m <sub>o</sub>
7	0.0	0.00	0.0	0.00	Calm:ENE	ENE:Calm	1.0	0.05	222	c m m <sub>o</sub>	c Stcu m <sub>o</sub>	c Stcu m <sub>o</sub>	c o d <sub>o</sub> m
8	0.0	0.00	0.0	0.00	Calm	Calm	0.0	0.00	158	o	o Ast d m	o m	o m
9	5.0	0.41	4.3	0.35	SW	SW:WSW	2.5	0.22	324	o c w	c b m c	c Ci so-ha r <sub>o</sub> c Nbst	c
10	11.0	0.90	11.0	0.90	WSW	NW:NNW	6.4	1.26	494	c b c	c Nbst d	c Nbst r b	b c p h b
11	4.3	0.35	3.1	0.25	NNW	NNW:W:WSW	3.4	0.50	370	b	b bc Frcu	bc c Stcu b y	b c
12	7.1	0.59	5.8	0.49	WSW:W	NW:NNW	20.0	2.19	548	c	c r <sub>o</sub> b Frst y	bc Stcu q r h b	b c q r
13	6.7	0.56	6.5	0.54	NNW:N	N	11.0	0.93	418	c r <sub>o</sub>	c b c Frst	c ss c Stcu	i s c
14	2.1	0.17	1.8	0.15	N:NNE	NE:NNE	3.9	0.55	390	c	c Nbst i s s <sub>o</sub>	c Nbst i s	s c
15	0.0	0.00	0.0	0.00	NNE:NE	NE	3.6	0.77	444	s c	c s <sub>o</sub>	c Nbst i s <sub>o</sub>	c i s
16	0.0	0.00	0.0	0.00	NE:ENE	NE:NNE	1.8	0.39	394	s c rs	c Nbst i rs	c i rs	c
17	5.9	0.49	5.0	0.42	NNE:NE	E	2.4	0.25	339	c	c s rs Nbst	rs s c	c x
18	9.9	0.82	9.0	0.75	NNE	ENE:NE	10.5	0.50	381	bc c	c Stcu b	b y	b c
19	11.5	1.00	11.5	1.00	NE:NNE	NNE:NE	1.3	0.21	361	c	c Stcu	c Frst	c b x
20	0.0	0.00	0.0	0.00	NE	NNE	1.1	0.11	296	b x	c b m <sub>o</sub> c Stcu	c Stcu	c
21	0.0	0.00	0.0	0.00	NNE:NE	ENE	0.8	0.05	237	c	c d <sub>o</sub> m Ast	c	c
22	2.3	0.20	2.0	0.17	NNE:Calm	NE:Calm:E	0.5	0.01	188	c	c i s <sub>o</sub>	c Stcu i s <sub>o</sub> c	c b x c
23	8.4	0.73	8.4	0.73	ENE:E	E	1.8	0.15	265	c	bc Stcu m	c Stcu b c	c b
24	10.9	0.95	10.7	0.93	E:Calm	SE:Calm	0.1	0.01	199	b x c b	bc Cist x	c Ci so-ha b	b x
25	4.3	0.38	3.5	0.30	SE:Calm	S	1.3	0.12	255	bx c	c Acu f c	bc c Acu	b c
26	1.6	0.15	1.0	0.09	S:SSW	S:SSW	6.2	0.57	368	c r <sub>o</sub>	r <sub>o</sub> c bc	c	rr c
27	0.3	0.03	0.3	0.03	WSW:WNW	WSW:SW	10.5	1.61	553	c	c b c Frcu b y	b c Acu r <sub>o</sub> r	c r c
28	0.0	0.00	0.0	0.00	SW	SW	5.1	0.69	452	c r <sub>o</sub>	r <sub>o</sub> c Stcu	c Stcu	c r
Means	4.6	0.39	4.3	0.36	...	...	...	0.48	343				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 38°·3, being 0°·6 higher than

The mean *Temperature of the Dew Point* for the month was 34°·5, being 0°·5 lower than

the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 78·3, being 5·3 less than

The mean *Elastic Force of Vapour* for the month was 0·200 in., being 0·004 in. less than

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·4.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·203. The maximum daily amount of *Sunshine* was 6·2 hours on February 18.

The highest reading of the *Solar Radiation Thermometer* was 101·9 on February 26; and the lowest reading of the *Terrestrial Radiation Thermometer* was 20·2 on February 24.

The *Proportions of Wind* referred to the cardinal points were N. 26, E. 21, S. 21, W. 22, calm or nearly calm conditions, 10; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 20·0 lbs. on the square foot on February 12. The mean daily *Horizontal Movement of the Air* for the month was 343 miles; the greatest daily value was 578 miles on February 1., and the least daily value was 155 miles on February 6.

*Rain* (0·005 in. or over) fell on 11 days in the month, amounting to 0·617 in., as measured by gauge No. 6 partly sunk below the ground; being 0·863 in. less than the average fall for the 65 years, 1841-1905.



MONTH and DAY 1938	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
Mar. 1	30.001	54.1	40.7	13.4	48.5	+ 8.1	44.5	39.4	9.1	18.9	1.2	71	96.4	34.6	43.3	0.039	5.7	10.9
2	30.416	53.1	34.6	18.5	43.4	+ 3.0	39.5	33.5	9.9	21.4	2.0	68	84.7	27.8	43.6	0.000	4.3	10.9
3	30.455	61.2	37.1	24.1	46.6	+ 6.1	41.5	33.9	12.7	27.6	1.8	62	104.6	31.0	43.8	0.000	9.6	11.0
4	30.507	59.4	35.8	23.6	46.4	+ 5.7	43.0	38.6	7.8	14.7	2.7	74	91.5	27.0	44.0	0.000	8.5	11.1
5	30.444	61.8	34.8	27.0	47.0	+ 6.1	43.3	38.6	8.4	20.7	0.4	72	105.5	26.5	43.9	0.002*	7.2	11.1
6	30.310	61.1	33.2	27.9	47.1	+ 6.1	42.1	34.8	12.3	25.7	2.2	63	91.0	24.6	44.0	0.000	7.6	11.2
7	30.246	55.9	32.4	23.5	43.5	+ 2.5	41.2	38.0	5.5	14.0	1.3	81	96.6	23.6	44.0	0.000	5.1	11.3
8	30.078	64.4	31.7	32.7	45.9	+ 4.8	41.6	35.5	10.4	28.6	0.6	66	109.3	22.0	44.0	0.000	6.6	11.3
9	29.983	61.1	38.1	23.0	48.3	+ 7.3	45.2	41.3	7.0	16.6	2.3	77	105.6	31.0	44.0	0.000	6.2	11.4
10	30.081	57.6	45.1	12.5	51.8	+ 10.9	49.0	46.0	5.8	10.0	1.4	81	89.4	41.0	44.0	0.000	0.5	11.5
11	30.248	59.5	45.8	13.7	51.8	+ 10.8	49.3	46.6	5.2	11.0	0.9	82	98.0	33.9	44.2	0.000	3.2	11.5
12	30.396	54.3	38.8	15.5	47.4	+ 6.3	44.1	40.0	7.4	14.5	0.6	75	103.2	26.6	44.2	0.000	4.6	11.6
13	30.346	53.8	36.1	17.7	42.8	+ 1.5	40.6	37.4	5.4	14.4	0.1	81	93.2	26.6	44.3	0.000	3.0	11.7
14	30.119	59.7	34.5	25.2	45.6	+ 4.1	40.4	32.4	13.2	30.3	0.0	60	116.5	19.6	44.8	0.000	10.4	11.7
15	30.058	57.7	34.6	23.1	45.5	+ 3.8	42.5	38.5	7.0	16.7	0.2	77	109.4	24.0	44.8	0.000	7.6	11.8
16	29.952	59.5	44.7	14.8	50.5	+ 8.6	47.2	43.4	7.1	17.4	3.2	77	110.4	39.1	44.9	0.000	4.6	11.8
17	30.047	55.5	44.4	11.1	51.4	+ 9.4	48.2	44.7	6.7	14.0	2.6	78	91.2	38.9	44.9	0.000	0.5	11.9
18	30.105	57.4	44.2	13.2	50.3	+ 8.3	47.0	43.2	7.1	16.2	2.7	77	104.9	38.5	45.2	0.000	3.6	12.0
19	29.998	64.0	43.0	21.0	52.1	+ 10.2	44.9	35.1	17.0	33.5	5.2	52	118.5	30.7	45.3	0.000	10.4	12.1
20	29.806	66.4	41.9	24.5	53.9	+ 12.0	46.4	36.7	17.2	30.1	5.6	52	117.8	27.9	45.6	0.000	6.9	12.1
21	29.663	63.2	46.4	16.8	54.1	+ 12.2	48.6	42.5	11.6	19.4	3.4	65	115.1	33.8	45.7	0.000	7.4	12.2
22	29.828	60.9	42.4	18.5	49.4	+ 7.4	46.3	42.6	6.8	14.3	1.1	77	104.7	31.1	45.9	0.000	6.1	12.2
23	29.947	61.1	39.7	21.4	46.8	+ 4.6	45.2	43.3	3.5	13.0	0.4	87	105.7	30.0	45.8	0.000	3.8	12.3
24	29.923	64.6	37.3	27.3	50.7	+ 8.3	44.6	36.4	14.3	24.7	0.0	59	115.5	27.8	46.1	0.005	7.4	12.4
25	29.710	53.2	37.1	16.1	47.1	+ 4.4	45.7	44.1	3.0	7.6	2.0	89	68.2	29.8	46.1	0.199	0.0	12.5
26	29.815	48.5	36.5	12.0	42.7	- 0.3	38.1	30.4	12.3	22.2	2.5	62	103.3	30.0	46.3	0.068	7.2	12.5
27	29.786	56.0	41.7	14.3	51.0	+ 7.7	47.8	44.3	6.7	15.3	0.4	77	88.1	40.6	46.3	0.020	0.4	12.6
28	30.045	60.9	46.4	14.5	53.9	+ 10.2	49.0	43.6	10.3	18.3	4.3	68	96.4	38.3	46.6	0.000	2.3	12.6
29	30.055	62.9	45.6	17.3	53.7	+ 9.6	49.7	45.5	8.2	15.0	2.8	74	115.3	39.0	46.7	0.000	4.2	12.7
30	30.070	66.6	48.9	17.7	56.3	+ 11.8	52.1	48.0	8.3	17.2	2.4	74	116.4	42.3	46.8	0.000	7.3	12.8
31	30.117	64.9	46.8	18.1	54.9	+ 10.0	49.8	44.4	10.5	19.9	2.2	68	119.4	39.4	47.0	0.000	8.0	12.8
Means	30.082	59.4	40.0	19.4	49.0	+ 7.1	45.1	40.1	9.0	18.8	1.9	71.8	102.8	31.5	45.0	0.333	5.5	11.9
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

\* Rainfall (Column 16). The amount entered on March 5 is derived from hoar frost.

The mean reading of the Barometer for the month was 30.082 in., being 0.329 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 66°·6 on March 30; the lowest in the month was 31°·7 on March 8; and the range was 34°·9.

The mean of all the highest daily readings in the month was 59°·4, being 10°·2 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 40°·0, being 4°·4 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 19°·4, being 5°·8 greater than the average for the 65 years, 1841-1905. †

The mean for the month was 49°·0, being 7°·1 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			Robin-son's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
hours		hours				lbs.	lbs.	miles					
Mar. 1	10.6	0.97	10.5	0.95	SW:WSW:NW	NW:NNW	3.4	0.43	374	r d <sub>o</sub> c	c b c Frst	c b y Frcu	b
2	11.0	1.00	11.0	1.00	NW:WSW	W:WSW	2.0	0.23	323	b x c	c m Acu	c Acu b Ci y	b
3	11.0	1.00	11.0	1.00	SW:WSW	WSW	0.9	0.12	311	b w	b y	b y	b
4	9.8	0.89	8.6	0.78	WSW	Calm	0.8	0.04	225	b	b Ci z	b z	b f
5	10.5	1.00	10.5	1.00	Calm	SW	0.8	0.04	189	b x f	b F b	b y	b z
6	9.3	0.89	6.4	0.61	SW:Calm	Calm:WSW	0.1	0.00	163	b z	b z	b z	b m
7	10.5	1.00	8.6	0.82	Calm	Calm	0.1	0.00	143	b x	b Ci f z <sub>o</sub>	b Ci so-ha z <sub>o</sub> y	b x m f
8	7.9	0.75	7.3	0.69	Calm	SW:WSW	1.0	0.05	200	b x f	b F b Ci z <sub>o</sub>	b z <sub>o</sub> y	b
9	2.7	0.26	2.0	0.19	WSW	WSW	1.9	0.27	345	b c b	b Cist c Stcu	c Stcu b c	c
10	3.2	0.30	2.1	0.20	WSW	W:NNW	1.3	0.13	280	c	c Stcu	c Stcu	c bc
11	2.9	0.27	2.9	0.27	NNW:Calm	NE:Calm	0.2	0.01	174	bc c	c Cist m	c Frcu b	b m <sub>o</sub> c
12	8.5	0.83	8.0	0.78	Calm:ENE	E:ESE	0.8	0.03	202	c	c Stcu	c Stcu b Cu	b x
13	10.3	1.00	10.3	1.00	E:Calm	E	0.5	0.03	184	b x c m	c Stcu m m <sub>o</sub>	c b y	b
14	10.3	1.00	10.3	1.00	Calm:S	SSW	1.0	0.10	244	b x	b y	b y	b
15	6.3	0.62	2.7	0.26	SW	SW	1.6	0.17	276	b x	b m c Cist so-ha	c Cist Cu y	c
16	0.0	0.00	0.0	0.00	SW	SW	3.9	0.53	404	c b	b c Stcu	c b c Stcu	c
17	4.3	0.41	3.3	0.32	SW	WSW:SW	1.5	0.12	295	c d <sub>o</sub>	c Nbst	c Stcu	c
18	10.3	1.00	10.3	1.00	SW	SW	4.3	0.33	370	c	c Stcu	c Stcu b	b
19	9.5	1.00	9.5	1.00	SSW:SW	SW:SSW	4.5	0.34	362	b	b Ci y	b Ci y	b
20	8.5	0.90	7.1	0.75	SSW	SSW	4.1	0.31	345	b x	bc Cist y	c Cist y	c b c
21	9.1	0.96	8.7	0.91	SSW	SW	3.7	0.42	346	c	bc Acu Cist	bc c Cu y	c b
22	0.7	0.08	0.0	0.00	NE	ESE	0.2	0.02	205	b	c bc Acu m	bc Acu b	b o m
23	8.3	0.87	5.6	0.59	Calm	Calm	0.0	0.00	131	o f	f b m	b m	b f
24	0.5	0.05	0.0	0.00	Calm:WSW	WSW:SW	3.0	0.19	291	f x b	b bc Ci so-ha y	bc Ci c y	c r <sub>o</sub>
25	8.7	0.92	8.6	0.91	SW	SW:NNW	4.3	0.27	332	c i r r <sub>o</sub>	c Nbst i r	i r	c b
26	0.7	0.07	0.3	0.04	WSW:NW	NW:WSW	3.4	0.43	383	b	b c Cu y	c y	c r <sub>o</sub> r
27	4.1	0.46	3.2	0.35	WSW:WNW	NW	2.8	0.33	380	r c	c r c r <sub>o</sub> c Stcu	c	c
28	4.6	0.51	3.3	0.37	NW:NNW	W:WSW	2.4	0.16	307	c b	b c Stcu m <sub>o</sub>	c Stcu y	c
29	3.8	0.43	3.1	0.35	WSW:W	WSW	1.5	0.23	353	c b c	c Frcu Ast	c Stcu	c b c
30	5.6	0.62	5.5	0.61	WSW	W:WSW	2.2	0.36	371	c	c Acu	c Ci Acu y	c b c
31	6.3	0.70	6.0	0.67	WSW:W	W:WSW	1.2	0.20	331	c b	b c Stcu b y	b y	b
Means	6.8	0.67	6.0	0.59	...	...	...	0.19	285				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 45°·1, being 5°·7 higher than the average for the 65 years, 1841-1905.

The mean *Temperature of the Dew Point* for the month was 40°·1, being 4°·5 higher than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 71·8, being 6·3 less than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0·249 in., being 0·040 in. greater than the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 4·8.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·463. The maximum daily amount of *Sunshine* was 10·4 hours on March 14 and 19.

The highest reading of the *Solar Radiation Thermometer* was 119°·4 on March 31; and the lowest reading of the *terrestrial Radiation Thermometer* was 19°·6 on March 14.

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 7, S. 25, W. 44, calm or nearly calm conditions, 18; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 4·5 lbs. on the square foot on March 19. The mean daily *Horizontal Movement of the Air* for the month was 285 miles; the greatest daily value was 404 miles on March 16, and the least daily value was 131 miles on March 23.

*Rain* (0·005 in. or over) fell on 5 days in the month, amounting to 0·333 in., as measured by gauge No. 6 partly sunk below the ground; being 1·187 in. less than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whole receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
April 1	30.153	65.6	44.4	21.2	52.7	+ 7.4	48.3	43.4	9.3	19.2	3.4	70	119.7	37.6	47.2	0.000	6.9	12.9
2	29.912	58.9	42.7	16.2	50.5	+ 4.8	46.1	40.9	9.6	19.2	3.6	69	123.0	36.0	47.5	0.000	6.4	13.0
3	29.939	52.6	41.8	10.8	47.4	+ 1.4	40.6	29.7	17.7	30.6	3.5	50	112.0	31.9	47.4	0.078	9.0	13.0
4	30.232	51.9	31.8	20.1	43.5	- 2.7	37.9	28.3	15.2	26.0	3.9	55	104.3	19.2	47.7	0.000	5.8	13.1
5	30.084	52.6	34.3	18.3	46.1	- 0.2	42.9	38.7	7.4	13.1	5.4	75	95.7	23.8	47.8	0.000	0.4	13.2
6	30.086	62.9	45.6	17.3	53.3	+ 7.0	48.9	44.1	9.2	14.9	2.8	71	103.0	37.0	47.8	0.000	3.4	13.2
7	30.083	63.2	42.1	21.1	52.4	+ 6.1	47.1	40.8	11.6	21.1	3.9	65	116.0	33.0	47.9	0.000	6.4	13.3
8	30.147	52.2	39.6	12.6	45.3	- 0.8	39.9	31.4	13.9	21.8	5.7	58	107.2	29.6	47.7	0.000	7.1	13.4
9	30.288	46.0	35.7	10.3	41.6	- 4.4	36.9	28.6	13.0	20.3	3.8	60	75.3	27.0	47.8	0.000	0.1	13.4
10	30.517	50.9	35.4	15.5	42.4	- 3.5	37.3	28.3	14.1	21.2	4.9	58	118.2	21.0	48.0	0.000	11.3	13.5
11	30.550	54.6	28.9	25.7	41.9	- 3.9	37.5	30.1	11.8	22.2	1.6	63	109.2	15.5	47.9	0.000	9.7	13.5
12	30.425	60.9	33.4	27.5	45.5	- 0.4	41.7	36.3	9.2	22.5	1.5	70	115.8	18.8	47.9	0.000	9.0	13.6
13	30.216	60.0	34.1	25.9	47.5	+ 1.4	42.8	36.3	11.2	19.5	1.7	65	110.9	20.9	47.9	0.000	10.3	13.7
14	30.102	54.0	41.7	12.3	47.8	+ 1.4	43.4	37.5	10.3	18.3	3.3	68	120.4	27.6	47.7	0.000	1.0	13.7
15	30.097	55.0	40.0	15.0	46.5	- 0.3	42.8	37.9	8.6	19.5	2.0	71	113.5	30.0	47.7	0.000	0.4	13.8
16	30.085	55.2	36.1	19.1	45.8	- 1.4	42.4	37.8	8.0	16.2	3.6	74	110.1	24.2	47.7	0.000	4.6	13.9
17	30.231	50.3	34.9	15.4	43.6	- 4.0	38.6	30.2	13.4	23.8	3.5	60	110.9	27.0	47.8	0.000	5.5	14.0
18	30.266	47.2	33.7	13.5	40.2	- 7.8	35.7	27.4	12.8	20.0	5.2	60	115.0	19.8	47.9	0.000	4.8	14.0
19	30.144	53.9	33.0	20.9	44.0	- 4.3	39.0	30.7	13.3	22.4	3.3	60	116.2	17.9	47.8	0.000	3.4	14.1
20	30.204	53.5	37.4	16.1	46.2	- 2.3	41.8	35.6	10.6	20.8	3.4	66	103.2	27.2	47.9	0.000	0.4	14.1
21	30.189	52.1	41.9	10.2	46.9	- 1.8	42.5	36.6	10.3	19.5	3.9	67	112.5	32.9	47.9	0.000	0.6	14.2
22	29.972	53.4	42.3	11.1	47.9	- 0.8	44.0	38.9	9.0	16.4	3.8	71	93.8	33.0	47.8	0.000	0.1	14.3
23	29.931	51.9	41.2	10.7	46.5	- 2.1	43.4	39.5	7.0	12.6	2.1	76	92.0	31.0	47.9	0.000	0.0	14.3
24	30.007	51.3	42.2	9.1	46.6	- 2.0	43.2	38.8	7.8	14.0	3.3	74	76.9	34.5	47.8	0.000	0.1	14.4
25	29.984	53.0	41.2	11.8	47.3	- 1.3	44.4	40.9	6.4	13.7	4.2	78	94.6	34.4	47.8	0.012	0.4	14.4
26	29.971	52.7	39.0	13.7	45.1	- 3.5	42.1	37.9	7.2	13.9	2.5	76	99.0	31.1	47.9	0.002	1.1	14.5
27	29.918	55.7	39.1	16.6	47.1	- 1.6	42.9	37.4	9.7	21.3	2.2	68	104.1	30.6	48.0	0.000	2.2	14.6
28	29.947	56.7	37.1	19.6	46.8	- 2.0	42.8	37.5	9.3	19.5	1.8	69	111.5	28.1	48.0	0.008	2.1	14.6
29	29.932	51.0	37.9	13.1	44.3	- 4.7	39.5	31.9	12.4	24.2	3.5	61	113.1	30.0	47.8	0.001	3.5	14.7
30	29.788	54.1	37.9	16.2	45.8	- 3.3	41.2	34.5	11.3	22.9	3.6	65	111.7	31.5	48.0	0.003	7.5	14.7
Means	30.113	54.4	38.2	16.2	46.3	- 1.0	41.9	35.6	10.7	19.7	3.4	66.4	107.0	28.1	47.8	Sum 0.104	4.1	13.8
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

The mean reading of the Barometer for the month was 30.113 in., being 0.358 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 65.6 on April 1; the lowest in the month was 28.9 on April 11; and the range was 36.7.

The mean of all the highest daily readings in the month was 54.4, being 1.7 lower than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 38.2, being 1.3 lower than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 16.2, being 0.4 less than the average for the 65 years, 1841-1905. †

The mean for the month was 46.3, being 1.0 lower than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			Robin-son's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Move-ment of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
April 1	5.8	0.65	5.7	0.63	W:WSW	WSW	0.8	0.13	289	b c	c bc Ci	bc Acu b y	b
2	0.8	0.09	0.7	0.08	WSW	WSW	6.5	1.19	477	b c	c Stcu	c Stcu	c
3	6.7	0.79	6.4	0.75	NW:NNW	NNW:N	6.5	0.93	416	c r b	b c Stcu	c Frcu b y	b c b
4	8.2	0.96	8.0	0.94	Calm:WSW:NW	NW:WSW	0.8	0.05	238	b x	b y	b c Cist so-ha y	c b
5	6.1	0.71	5.6	0.66	WSW	WSW:NW	2.0	0.15	306	b c	b d <sub>o</sub> c Stcu	c Stcu	c b
6	8.4	0.99	8.4	0.99	WSW:NW	NW:NNW	0.8	0.07	252	b c b c	c Stcu	c Stcu y	c b
7	7.8	0.92	7.8	0.92	WSW:NW	NNW:N	1.4	0.10	266	b	b c Cu	bc Ci Acu b	b
8	8.0	0.94	8.0	0.94	N:NNE	NNE:NE	1.5	0.15	288	b c	bc c Stcu y	c Cu y	c b
9	4.5	0.56	4.1	0.52	NNE:NE	NE	1.5	0.10	277	b c	c Stcu	c Stcu y	c b
10	8.0	1.00	8.0	1.00	NE:ENE	E:ESE	1.1	0.06	235	b c	c b y	bc b y	b x
11	7.8	0.97	7.7	0.96	Calm:N	NNE:ESE	0.8	0.04	167	b x	b f b Frcu y	b Ci y	b x
12	8.0	1.00	8.0	1.00	Calm:NE	NE:ESE:Calm	1.0	0.07	216	b x c	c Frcu b Ci	b Ci y	b x m <sub>o</sub>
13	7.5	0.94	7.5	0.94	Calm:NNE	NNE:NE	1.0	0.07	220	b x m <sub>o</sub>	b z <sub>o</sub> b y	b y	b
14	5.1	0.64	5.1	0.64	N:NNE	NNE	3.8	0.35	335	b c	c Stcu y	c y	c b
15	7.5	0.94	7.3	0.91	NNE:NE	NE:E:ENE	1.4	0.11	286	b c	c Stcu	c Stcu y	c bc
16	3.7	0.50	2.7	0.35	NE:ENE	E:NE	1.0	0.04	244	b x	b c Stcu	c so-ha	bc c
17	6.7	0.89	6.5	0.87	NE	NE:NNE	3.5	0.34	368	c b	b c Stcu y	c Stcu y	c b
18	...	...	...	...	NNE:N	N	2.3	0.21	303	b c b x	b c y	c y	c b x
19	7.4	0.99	7.4	0.99	WSW:NNW	NNW:N	2.2	0.18	291	b x c	c Acu y	c Stcu y	c b
20	0.0	0.00	0.0	0.00	NNW	NNE:Calm	1.0	0.05	225	b x m <sub>o</sub>	b c Stcu m <sub>o</sub>	c Stcu y	c
21	1.2	0.16	0.0	0.00	Calm:N	Var.:Calm	0.3	0.02	185	c	c Ast Cunb	c Acu Stcu y	c
22	3.7	0.49	2.7	0.36	N	N:NNW	1.5	0.13	274	c ir <sub>o</sub>	c Acu Nbst r <sub>o</sub>	r <sub>o</sub> c	c bc
23	2.1	0.30	1.1	0.15	NNW:N	N:NNE	1.3	0.09	264	b c r <sub>o</sub>	c r <sub>o</sub> c Nbst	c Nbst r <sub>o</sub> c	c
24	0.0	0.00	0.0	0.00	NNE:N	N	0.9	0.13	215	c	c r <sub>o</sub> c	c	c
25	2.6	0.37	2.3	0.33	Calm:NNW:N	N:ENE:NNE	1.2	0.11	257	c	c r <sub>o</sub> r Nbst	c Nbst Stcu	c b
26	5.1	0.72	4.9	0.71	NNE:NE	NE:ENE	0.8	0.08	255	c	c Nbst r <sub>o</sub>	r <sub>o</sub> c Cu Acu b	b
27	7.0	1.00	7.0	1.00	NNE	NNE:ENE:NE	1.3	0.08	242	b c	c Stcu r <sub>o</sub>	r <sub>o</sub> c Stcu b	b
28	2.8	0.40	2.8	0.40	NNE	NE:NNE	2.3	0.23	312	b	b c Stcu	c Stcu r c y	c
29	3.3	0.47	3.2	0.45	NNE:N	N	4.0	0.35	346	c b	bc c Stcu p y	c Acu y	c b c
30	0.0	0.00	0.0	0.00	NNW:NE	NNE	5.3	0.83	434	c p	c y	c y	c
Means	5.0	0.63	4.8	0.60	...	...	...	0.21	283				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 41°.9, being 2°.0 lower than

The mean *Temperature of the Dew Point* for the month was 35°.6, being 4°.0 lower than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 66.4, being 8.1 less than

The mean *Elastic Force of Vapour* for the month was 0.208, in., being 0.036 in. less than

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6.5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0.298. The maximum daily amount of *Sunshine* was 11.3 hours on April 10.

The highest reading of the *Solar Radiation Thermometer* was 123°.0 on April 2; and the lowest reading of the *Terrestrial Radiation Thermometer* was 15°.5 on April 11.

The *Proportions of Wind* referred to the cardinal points were N. 52, E. 21, S. 4, W. 15, calm or nearly calm conditions, 8; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 6.5 lbs. on the square foot on April 2 and 3. The mean daily *Horizontal Movement of the Air* for the month was 283 miles; the greatest daily value was 477 miles on April 2, and the least daily value was 167 miles on April 11.

*Rain* (0.005 in. or over) fell on 3 days in the month, amounting to 0.104 in., as measured by gauge No. 6 partly sunk below the ground; being 1.462 in. less than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER  Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whole receiving surface is 8 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evapo- ration	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
May 1	29.765	52.1	44.2	7.9	47.4	- 1.9	44.3	40.5	6.9	11.3	3.2	76	77.0	42.3	47.8	0.035	0.0	14.8
2	29.767	51.0	42.3	8.7	45.3	- 4.2	43.5	41.2	4.1	8.8	2.4	86	83.0	41.2	48.0	0.028	0.0	14.9
3	29.814	49.8	44.0	5.8	46.9	- 2.9	44.8	42.3	4.6	10.3	2.2	84	60.8	43.4	47.9	0.289	0.0	14.9
4	29.872	56.6	45.2	11.4	51.1	+ 1.1	45.5	38.3	12.8	23.3	4.2	62	123.7	39.9	48.0	0.000	4.2	15.0
5	29.915	59.5	42.7	16.8	50.6	+ 0.3	44.0	34.9	15.7	27.5	4.2	55	118.8	37.6	48.2	0.000	13.3	15.0
6	29.893	58.5	37.9	20.6	47.9	- 2.6	42.6	35.1	12.8	19.1	3.0	61	117.0	26.7	48.1	0.000	7.3	15.1
7	29.891	52.7	37.1	15.6	45.1	- 5.6	40.8	34.5	10.6	21.7	1.2	66	91.8	25.9	48.2	0.000	0.8	15.1
8	30.022	54.7	32.1	22.6	44.1	- 6.9	38.5	29.2	14.9	20.9	2.7	55	117.0	18.1	48.4	0.000	9.9	15.2
9	29.888	59.4	33.1	26.3	47.9	- 3.3	41.9	33.0	14.9	23.9	3.1	56	126.1	21.2	48.7	0.000	2.8	15.3
10	29.946	58.2	38.8	19.4	50.3	- 1.2	46.3	41.6	8.7	17.0	2.3	72	103.0	27.7	48.5	0.000	4.0	15.3
11	30.074	65.5	45.2	20.3	54.7	+ 2.9	47.3	38.3	16.4	25.8	5.0	54	128.9	31.2	48.8	0.000	10.2	15.4
12	29.939	70.9	44.3	26.6	57.4	+ 5.3	49.8	41.3	16.1	39.8	4.3	55	132.7	30.4	48.8	0.002	11.1	15.4
13	29.855	63.3	49.8	13.5	56.9	+ 4.5	52.1	47.4	9.5	16.1	4.1	70	115.8	39.5	49.0	0.000	0.8	15.5
14	29.643	76.1	49.0	27.1	62.4	+ 9.8	56.2	50.8	11.6	25.3	2.3	66	128.4	38.1	49.2	0.186	3.9	15.5
15	29.627	66.9	52.2	14.7	59.6	+ 6.8	54.7	50.3	9.3	19.7	2.1	71	134.5	39.4	49.4	0.046	9.0	15.6
16	29.745	59.2	46.9	12.3	54.0	+ 1.0	50.9	47.8	6.2	11.1	3.1	79	97.0	36.1	49.8	0.000	1.4	15.6
17	29.706	57.5	44.2	13.3	52.4	- 0.7	50.5	48.7	3.7	9.3	0.8	87	76.6	32.0	50.0	0.189	0.0	15.7
18	29.609	58.2	44.6	13.6	50.9	- 2.4	47.2	42.9	8.0	15.2	1.7	74	109.5	42.0	50.2	0.078	1.3	15.7
19	29.786	53.7	41.9	11.8	47.5	- 6.0	42.8	36.3	11.2	19.9	2.7	65	95.5	37.0	50.2	0.000	3.2	15.8
20	29.908	55.4	41.7	13.7	49.1	- 4.7	44.4	38.4	10.7	16.2	6.0	66	123.2	35.0	50.3	0.066	6.7	15.8
21	30.073	60.3	40.5	19.8	50.7	- 3.5	45.3	38.4	12.3	20.4	2.5	63	127.8	31.2	50.5	0.000	13.0	15.9
22	30.110	65.8	41.2	24.6	54.0	- 0.6	49.8	45.4	8.6	14.7	3.1	73	131.5	33.8	50.6	0.000	8.1	16.0
23	29.913	70.3	43.6	26.7	57.0	+ 2.1	51.8	46.6	10.4	20.4	1.1	69	133.6	33.0	50.9	0.000	7.1	16.0
24	29.837	61.9	45.3	16.6	53.9	- 1.4	48.2	41.7	12.2	19.2	2.5	63	113.0	35.1	50.9	0.009	5.9	16.0
25	29.756	59.3	43.7	15.6	51.2	- 4.3	48.2	45.0	6.2	12.5	1.8	79	112.2	32.9	50.9	0.233	0.0	16.0
26	29.619	59.7	40.0	19.7	51.5	- 4.3	48.0	44.1	7.4	14.5	0.4	76	115.3	29.2	51.0	0.000	4.7	16.1
27	29.382	64.7	50.3	14.4	56.2	+ 0.2	53.1	50.3	5.9	13.9	1.5	81	123.3	42.7	51.3	0.024	1.7	16.1
28	29.368	54.1	46.5	7.6	50.3	- 5.9	49.0	47.7	2.6	9.5	0.2	91	86.2	39.6	51.1	0.276	0.2	16.2
29	29.487	59.3	44.2	15.1	51.7	- 4.7	48.4	44.9	6.8	16.6	1.4	77	115.0	38.0	51.2	0.085	5.5	16.2
30	29.419	60.2	48.6	11.6	54.0	- 2.7	49.3	44.3	9.7	17.0	6.3	69	115.6	42.4	51.3	0.021	7.5	16.2
31	29.678	58.6	44.2	14.4	53.7	- 3.4	51.0	48.4	5.3	12.9	1.3	82	94.0	34.0	51.3	0.093	2.4	16.3
Means	29.784	59.8	43.4	16.4	51.8	- 1.3	47.4	42.2	9.6	17.9	2.7	70.4	110.6	34.7	49.6	1.660	4.7	15.6
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

The mean reading of the Barometer for the month was 29.784 in., being 0.017 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 76° 1 on May 14; the lowest in the month was 32° 1 on May 8; and the range was 44° 0.

The mean of all the highest daily readings in the month was 59° 8, being 2° 4 lower than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 43° 4, being 0° 8 lower than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 16° 4, being 1° 6 less than the average for the 65 years, 1841-1905. †

The mean for the month was 51° 8, being 1° 3 lower than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot						
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures	Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
May	hours		hours				lbs.	lbs.	miles				
1	0.0	0.00	0.0	0.00	NNE:NE	NE:NNE	3.6	0.75	440	c ir.	r. c r. r.	c d.	c m.
2	0.0	0.00	0.0	0.00	NNE:ENE	ENE	2.8	0.36	350	c m.	c d. r. m. c	c r. d.	d. c
3	0.6	0.09	0.5	0.07	NE	ENE:NE	1.2	0.14	300	c d.	c d. rr	r c Nbst	c r c
4	6.5	1.00	6.5	1.00	ENE	ENE	4.8	0.86	429	c	c Acu y	c Acu y	c b
5	2.3	0.35	1.4	0.21	ENE	ENE	7.8	0.76	409	b	b Frcu y	b Frcu y	b c
6	6.5	1.00	6.5	1.00	NE	NE:E: Calm	1.6	0.15	276	c	c Stcu y	c Frcu b y	b x
7	6.0	1.00	6.0	1.00	SW:NNE	NNE:NE	2.6	0.32	311	b x c	c Stcu y	c Ast y	c b
8	6.0	1.00	6.0	1.00	Calm:NNE	Calm:SSW	0.5	0.01	184	b x	b c Stcu y	c Stcu y	c b
9	4.7	0.79	4.6	0.77	SW:WSW	WSW:W:WNW	0.8	0.06	236	t x c	c bc Acu c y	c Stcu y	c b
10	0.0	0.00	0.0	0.00	WSW:Calm	SE	0.2	0.02	183	b z.	b c z.	c Acu Stcu z.	c
11	6.0	1.00	6.0	1.00	Calm:SSW	SSW:S	1.4	0.09	238	c	c b Cu y	b Frcu y	b Aurora
12	0.2	0.03	0.2	0.03	S:SSW	SSW:SW	3.0	0.40	332	b	b Cist y	b Ci c v y	c r. c
13	3.7	0.62	2.9	0.49	SW	SSW:S	2.0	0.28	319	c	c Stcu v	c Stcu Ast v y	c b
14	0.0	0.00	0.0	0.00	S	S:SSW	1.8	0.12	254	b c	c Ast y	c y c ir.	c ir
15	3.6	0.66	3.2	0.59	SSW	SSW:S	3.3	0.33	311	c ir	c Ast Cu v	c Stcu v y	bc
16	5.1	0.92	5.1	0.92	S:SSW	SSW	1.9	0.15	285	bc c	c Nbst r. d.	c Stcu	c b c
17	0.0	0.00	0.0	0.00	SSW:Calm	Calm:SW:WSW	2.5	0.08	222	c bc c	c rr	rr. c	c r c
18	0.0	0.00	0.0	0.00	WSW	N:NE	1.2	0.13	283	c r c	c Stcu	c r. c	c rr.
19	2.6	0.48	1.9	0.35	N	N:NNW	2.0	0.17	285	c	c Stcu	c Stcu y	c
20	5.4	0.98	5.4	0.98	NNW:NNE	NNE:NE	3.6	0.30	338	c b c	c Nbst p	c Cunb p c	c b
21	4.9	0.97	4.9	0.97	NNE:N:NNE	NE	2.0	0.12	287	b c	c bc Stcu y	b Cu y	b
22	4.8	0.96	4.8	0.96	NNE	NE:Calm	0.9	0.04	233	b c	c Ast b c Stcu	c Frcu	c b
23	5.0	1.00	5.0	1.00	Calm:SW	W:NNW	4.0	0.30	294	b	b c Cist	c Cu y	c b
24	0.7	0.15	0.2	0.04	WSW:WNW	NW:WNW	3.4	0.34	351	b	c Cunb p	c y	c
25	5.0	1.00	5.0	1.00	W:WSW	WSW:Calm:S	0.3	0.02	211	c	c Nbst id.	c Nbst rr. R	c b m
26	0.0	0.00	0.0	0.00	SSW	SSW:SSE	1.0	0.07	246	b m	c Cist Cu so-ha	c	c
27	3.2	0.65	2.8	0.55	SSE	S:E:Calm	0.5	0.03	201	c	c Frcu r.	s Stcu r c	c b
28	0.1	0.03	0.0	0.00	SSW	NW:SW	1.5	0.07	241	b c	c Nbst r. rr	r c r.	c ir
29	0.7	0.15	0.5	0.10	WSW	WSW:S:SW	5.0	0.53	380	c ir bc	bc c so-ha	c d r	c d. c
30	4.6	0.96	4.5	0.95	SW:WSW	W:WSW	7.8	1.42	503	c b c	c Stcu Nbst p	c p c Ast Cunb	c b
31	0.0	0.00	0.0	0.00	WSW:SW:SSW	SSW:SW	3.9	0.39	343	b	b c Ast Frst	c Frcu d c	c rr. c
Means	2.8	0.51	2.7	0.48	...	...	...	0.28	299				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean temperature of Evaporation for the month was 47°·4, being 1°·6 lower than

The mean temperature of the Dew Point for the month was 42°·2, being 2°·6 lower than the average for the 65 years, 1841-1905.

The mean Degree of Humidity for the month was 70·4, being 3·5 less than

The mean Elastic Force of Vapour for the month was 0·270 in., being 0·028 in. less than

The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·2.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·302. The maximum daily amount of Sunshine was 13·3 hours on May 5.

The highest reading of the Solar Radiation Thermometer was 134°·6 on May 15; and the lowest reading of the Terrestrial Radiation Thermometer was 18°·1 on May 8.

The Proportions of Wind referred to the cardinal points were N. 22, E. 18, S. 27, W. 24, calm or nearly calm conditions, 9; the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 7·8 lbs. on the square foot on May 5 and 30. The mean daily Horizontal Movement of the Air for the month was 299 miles; the greatest daily value was 503 miles on May 30, and the least daily value was 183 miles on May 10.

Rain (0·005 in. or over) fell on 15 days in the month, amounting to 1·660 in., as measured by gauge No. 6 partly sunk below the ground; being 0·255 in. less than the average fall for the 65 years, 1841-1905).

MONTH and DAY 1938	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					of Evapo- ration	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
June 1	29.480	64.5	49.0	15.5	56.3	- 1.1	53.4	50.8	5.5	12.0	2.4	82	130.3	46.4	51.7	0.119	1.0	16.3
2	29.572	57.6	47.0	10.6	51.7	- 6.1	46.3	39.6	12.1	22.1	6.4	64	103.6	41.1	51.6	0.000	1.0	16.3
3	29.881	64.8	44.6	20.2	54.3	- 3.8	48.7	42.5	11.8	23.9	2.6	64	141.0	37.1	51.7	0.000	7.7	16.4
4	29.773	69.2	50.0	19.2	60.3	+ 2.0	53.2	46.2	14.1	25.3	2.8	60	136.2	46.1	52.0	0.000	12.1	16.4
5	29.687	66.7	49.2	17.5	59.5	+ 1.1	52.0	44.1	15.4	26.9	4.8	57	139.2	42.9	52.2	0.000	10.0	16.4
6	29.846	66.6	47.1	19.5	58.7	+ 0.4	53.5	48.6	10.1	16.3	2.9	69	135.0	40.1	52.2	0.000	5.0	16.4
7	29.846	72.2	55.6	16.6	63.3	+ 5.1	58.5	54.7	8.6	14.5	4.2	74	134.1	48.4	52.6	0.000	3.4	16.5
8	29.911	70.4	58.7	11.7	63.8	+ 5.7	60.3	57.7	6.1	12.8	2.6	81	116.7	51.2	52.8	0.000	0.5	16.5
9	29.972	72.0	51.9	20.1	60.2	+ 2.2	53.0	45.8	14.4	26.9	3.0	59	146.7	42.3	53.0	0.000	7.3	16.5
10	29.982	64.7	47.5	17.2	55.9	- 2.2	49.6	42.7	13.2	22.4	3.4	61	137.8	39.9	53.2	0.017	8.3	16.5
11	30.020	64.6	47.1	17.5	56.1	- 2.1	49.2	41.4	14.7	23.5	5.4	58	135.8	39.0	53.2	0.000	7.6	16.6
12	30.009	60.9	50.3	10.6	55.3	- 3.1	49.8	43.9	11.4	18.2	5.2	65	121.6	40.9	53.3	0.000	0.9	16.6
13	30.134	66.3	47.0	19.3	58.1	- 0.4	52.1	46.2	11.9	21.7	2.4	64	141.0	36.1	53.7	0.000	11.9	16.6
14	30.090	78.4	52.0	26.4	65.8	+ 7.1	57.2	49.8	16.0	28.2	2.3	56	137.7	41.0	53.8	0.000	10.2	16.6
15	30.077	68.7	51.2	17.5	59.2	+ 0.4	53.1	47.3	11.9	18.4	4.9	64	130.9	42.2	54.0	0.000	6.4	16.6
16	30.150	76.9	47.2	29.7	62.8	+ 3.9	55.7	49.3	13.5	28.4	1.6	61	143.8	36.2	54.2	0.000	11.8	16.6
17	30.072	74.2	52.7	21.5	63.4	+ 4.4	57.3	52.2	11.2	19.1	1.5	67	142.0	40.4	54.4	0.000	8.1	16.6
18	29.859	75.9	51.5	24.4	63.9	+ 4.7	57.2	51.6	12.3	20.8	2.0	64	130.7	40.1	54.5	0.000	3.9	16.6
19	29.867	73.6	53.1	20.5	63.4	+ 3.9	55.5	48.3	15.1	29.1	1.7	58	133.2	46.9	54.8	0.000	6.5	16.6
20	30.089	73.7	48.9	24.8	62.1	+ 2.2	53.1	43.9	18.2	29.1	3.6	51	133.1	38.7	55.0	0.000	12.3	16.6
21	30.020	80.9	49.6	31.3	65.9	+ 5.6	55.9	46.7	19.2	34.1	4.2	50	141.7	37.6	55.2	0.000	14.3	16.6
22	29.964	77.6	55.1	22.5	64.7	+ 4.1	59.1	54.7	10.0	24.6	3.3	70	139.4	47.9	55.3	0.011	3.5	16.6
23	29.951	76.8	60.2	16.6	66.6	+ 5.7	60.7	56.3	10.3	21.0	3.4	70	136.0	54.0	55.6	0.000	1.4	16.6
24	29.856	78.7	62.0	16.9	69.0	+ 7.8	61.4	55.8	13.2	22.9	4.2	63	142.5	54.5	55.9	0.000	6.8	16.6
25	29.685	77.6	59.0	18.6	66.6	+ 5.2	59.7	54.4	12.2	21.9	4.0	65	140.0	52.6	56.1	0.000	7.2	16.6
26	29.785	74.1	55.0	19.1	63.9	+ 2.4	56.9	51.0	12.9	25.0	3.6	63	138.2	49.7	56.2	0.000	2.9	16.6
27	29.564	65.1	54.6	10.5	61.5	- 0.1	58.1	55.4	6.1	14.4	4.2	81	104.0	50.0	56.2	0.197	1.9	16.6
28	29.474	66.2	52.4	13.8	59.8	- 1.8	53.9	48.5	11.3	19.8	4.7	66	125.2	47.7	56.5	0.011	2.7	16.6
29	29.458	68.0	53.2	14.8	60.2	- 1.4	52.4	44.4	15.8	28.4	6.8	56	131.6	46.8	56.6	0.000	6.6	16.6
30	29.647	67.3	50.2	17.1	57.7	- 3.8	51.9	46.1	11.6	23.2	3.2	65	131.7	41.7	56.8	0.059	6.9	16.6
Means	29.857	70.5	51.8	18.7	61.0	+ 1.6	54.6	48.7	12.3	22.5	3.6	64.3	133.4	44.0	54.1	Sum 0.414	6.3	16.5
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 8) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

The mean reading of the barometer for the month was 29.857 in., being 0.035 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 80° 9 on June 21; the lowest in the month was 44° 6 on June 3; and the range was 36° 3.

The mean of all the highest daily readings in the month was 70° 5, being 1° 6 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 51° 8, being 1° 4 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 18° 7, being 0° 2 greater than the average for the 65 years, 1841-1905. †

The mean for the month was 61° 0, being 1° 6 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).



MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER				
	POLARIS		δ URSÆ MINORIS		OSLER'S			Pressure on the Square Foot		Robin-son's				
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Greatest	Mean of 24 Hourly Measures	Horizontal Move-ment of the Air					
					A.M.	P.M.				0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>	
June 1	0.6	0.13	0.5	0.09	SW:SSW	S:SE:SSW	14.8	0.50	318	c	c Stcu	c Nbst r r <sub>o</sub> c	c r <sub>o</sub> c q	
2	3.7	0.78	3.4	0.71	SSW:WSW	WSW	12.6	2.40	553	c q	c Stcu q	c y	c b c	
3	0.8	0.16	0.5	0.10	WSW	WSW:SW	3.2	0.40	348	c b	b c Frcu	c Frcu y	c	
4	0.0	0.00	0.0	0.00	SSW	S: Calm	2.5	0.21	264	c	c b Cu y	b Acu y	c	
5	4.3	0.97	4.3	0.97	S:SW:WSW	WSW:SW:SSW	2.6	0.27	337	c	c y	c v y	b	
6	3.3	0.69	3.3	0.69	SSW:SW	SW: S	4.2	0.40	337	b c	c d c Cu Frcu	c r <sub>o</sub> c Cu Stcu	c	
7	1.9	0.42	1.7	0.39	SSW:SW	SW	3.0	0.30	323	b c	c Stcu	c	c	
8	1.5	0.33	1.1	0.25	SW	SW:SSW	1.2	0.03	232	c	c Stcu	c Stcu	c so-ha b c	
9	3.4	0.76	3.3	0.75	W:WSW	WSW:SW	1.9	0.16	305	c	c b bc Cu Frcu y	bc c Frcu y	c r <sub>o</sub> b	
10	3.3	0.74	3.2	0.71	SW:WSW	W:NW	2.7	0.20	314	b c	c Cunb p y	c Cunb p t y	c	
11	0.0	0.00	0.0	0.00	NNW	N:NNW	1.2	0.03	235	c b	b c Cu	c	c	
12	2.0	0.44	2.0	0.44	NNW:N	NE:ENE	0.3	0.01	204	c	c Acu Stcu y	c Stcu y	c	
13	3.1	0.70	2.9	0.64	NNE	NNE: Calm	2.0	0.12	244	c b	b c Stcu Frst y	c b c y	c b	
14	2.5	0.57	2.4	0.54	Calm:NNW	NW:NNW	1.1	0.09	226	c	c bc Acu Frcu z <sub>o</sub>	bc Stcu b y	b c	
15	4.2	0.92	4.1	0.91	NNW	NNW: E	1.6	0.14	287	c	c Stcu	c y	c b	
16	4.2	0.93	4.0	0.90	Calm:SW	W:NW	0.7	0.03	191	b c	c b bc Cist y	b bc Ci y	c b	
17	4.1	0.91	4.1	0.91	Calm:NE	E:SE	0.7	0.05	203	b c	c b Cu z <sub>o</sub> y	b z <sub>o</sub> y	b	
18	3.9	0.87	3.9	0.87	SSE:SSW	SSW	1.2	0.05	233	b c b	b c Ast y	c r <sub>o</sub> c y	c b	
19	4.5	1.00	4.5	1.00	SW:WSW	W	2.5	0.36	362	b c r <sub>o</sub>	c Acu y	c Ci so-ha y	c b	
20	4.5	1.00	4.5	1.00	WSW:WNW	WNW:W	1.6	0.08	259	b c	c Cist so-ha b y	b Frcu y	b	
21	4.5	1.00	4.5	1.00	WSW:SW	SW: W	1.7	0.11	273	b	b Ci so-ha y	b Ci y	b y	
22	1.4	0.31	1.3	0.30	WSW	W:WSW	1.8	0.13	285	b c	c b Frcu y	b y c r r <sub>o</sub>	r <sub>o</sub> c	
23	0.0	0.00	0.0	0.00	WSW	WSW	1.3	0.13	294	c	c d <sub>o</sub> c Stcu	c Stcu y	c	
24	4.5	1.00	4.5	1.00	WSW	WSW:SW	1.9	0.28	342	c	c Cu Ci y	c Cist Cicu y	c b	
25	3.3	0.73	3.0	0.67	SW	WSW	7.7	0.86	421	b	c Cu Acu y	c Ast y	c b c	
26	0.6	0.14	0.5	0.11	WSW	WSW:SW	2.5	0.21	310	c b c	c Stcu y	c y	c	
27	4.4	0.97	3.9	0.88	SW	SW:WSW	6.5	1.01	438	c	c d <sub>o</sub> r	r R c Nbst	c b	
28	0.3	0.06	0.1	0.03	SW:WSW	SW	15.0	1.83	527	b c	c Acu Nbst	c p <sub>o</sub> y	c r <sub>o</sub> q	
29	4.1	0.92	3.9	0.87	WSW:WNW	W:WSW	6.6	1.65	498	c q	c Acu Stcu y	bc Acu y	b c b	
30	4.4	0.98	4.4	0.98	SW:WSW	SW	3.3	0.27	320	b c	c Stcu Nbst	c p c Acu	c p b	
Means	2.8	0.61	2.7	0.59	...	...	..	0.41	316					
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31	

The mean *Temperature of Evaporation* for the month was 54°·6, being 0°·3 lower than

The mean *Temperature of the Dew Point* for the month was 48°·7, being 2°·1 lower than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 64·3, being 8·9 less than

The mean *Elastic Force of Vapour* for the month was 0·345 in., being 0·030 in. less than

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·0.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·383. The maximum daily amount of *Sunshine* was 14·3 hours on June 21.

The highest reading of the *Solar Radiation Thermometer* was 146°·7 on June 9; and the lowest reading of the *terrestrial Radiation Thermometer* was 36°·1 on June 13.

The *Proportions of Wind* referred to the cardinal points were N. 11, E. 5, S. 30, W. 47, calm or nearly calm condition, 7; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 15·0 lbs. on the square foot on June 28. The mean daily *Horizontal Movement of the Air* for the month was 316 miles; the greatest daily value was 553 miles on June 2, and the least daily value was 191 miles on June 16.

*Rain* (0·005 in. or over) fell on 6 days in the month, amounting to 0·414 in., as measured by gauge No. 6 partly sunk below the ground; being 1·624 in., less than the average fall for the 65 years, 1841-1905.



MONTH and DAY 1938	BAROMETER  Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air				Of Evapo- ration	Of the Dew Point	Mean	Greatest	Least	Of Radiation		Of the Earth 4 ft. below the Surface of the Soil					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values				Deducted Mean Daily Value			Highest in Sun's Rays	Lowest on the Grass			
July 1	29.624	64.1	47.1	17.0	55.4	- 6.1	51.7	48.1	7.3	18.0	1.0	76	130.7	36.6	56.7	0.018	7.5	16.6
2	29.733	67.7	45.7	22.0	57.4	- 4.2	52.1	46.8	10.6	21.9	1.6	68	133.1	33.1	56.8	0.008	6.2	16.6
3	29.834	67.5	47.3	20.2	58.2	- 3.6	53.0	48.0	10.2	20.5	1.5	69	117.1	37.4	56.6	0.000	4.3	16.5
4	29.576	69.1	50.8	18.3	58.3	- 3.8	53.0	47.9	10.4	20.0	4.0	69	133.1	43.8	56.7	0.420	5.4	16.5
5	29.435	62.8	47.2	15.6	54.4	- 7.9	50.8	47.2	7.2	16.0	3.4	76	122.0	41.3	56.5	0.134	7.2	16.5
6	29.712	68.0	48.1	19.9	57.7	- 4.7	52.3	46.9	10.8	21.3	1.6	68	136.6	40.2	56.6	0.005	8.0	16.5
7	29.610	74.9	53.1	21.8	63.4	+ 1.0	57.9	53.5	9.9	20.9	3.3	70	133.0	45.2	56.5	0.166	4.1	16.4
8	29.499	60.2	54.0	6.2	56.0	- 6.4	53.6	51.5	4.5	9.9	3.4	85	105.8	46.6	56.6	0.191	0.4	16.4
9	29.804	63.6	53.3	10.3	57.0	- 5.4	52.5	48.3	8.7	19.1	3.1	72	115.5	46.5	56.7	0.067	3.3	16.4
10	29.900	63.5	50.8	12.7	57.4	- 5.1	54.3	51.5	5.9	12.3	2.4	81	90.9	43.8	56.5	0.003	1.2	16.4
11	29.658	70.6	58.3	12.3	63.1	+ 0.4	57.6	53.1	10.0	19.2	3.8	70	131.0	56.0	56.7	0.000	4.3	16.3
12	29.617	65.3	55.8	9.5	59.7	- 3.2	55.1	51.0	8.7	16.4	4.6	73	98.3	52.9	56.5	0.000	0.4	16.3
13	29.839	74.4	53.7	20.7	63.1	- 0.0	55.4	48.4	14.7	24.4	5.2	59	143.0	45.1	56.9	0.000	9.1	16.3
14	29.840	67.9	54.0	13.9	60.6	- 2.7	56.0	52.1	8.5	16.8	3.1	73	107.2	46.8	56.8	0.000	1.0	16.2
15	29.789	66.1	55.5	10.6	60.2	- 3.2	57.6	55.5	4.7	9.5	2.4	85	97.5	51.9	56.9	0.061	0.2	16.2
16	29.898	65.6	54.1	11.5	58.1	- 5.3	54.4	51.1	7.0	17.0	2.8	78	124.6	50.1	57.0	0.019	2.7	16.2
17	30.023	71.9	54.0	17.9	62.0	- 1.4	54.5	47.5	14.5	25.2	4.1	59	133.3	48.8	57.1	0.003	8.2	16.2
18	30.017	67.7	56.0	11.7	62.0	- 1.3	58.5	55.8	16.2	9.7	2.2	81	94.2	50.8	57.2	0.008	0.2	16.1
19	29.956	77.4	57.1	20.3	66.6	+ 3.4	60.9	56.6	10.0	18.4	1.6	71	142.0	48.2	57.4	0.000	10.4	16.1
20	29.876	76.6	55.5	21.1	64.8	+ 1.6	59.7	55.9	8.9	19.0	1.0	73	134.7	51.1	57.2	0.000	7.3	16.0
21	29.889	74.9	59.8	15.1	66.1	+ 2.9	60.3	55.9	10.2	17.8	2.6	70	120.2	52.5	57.5	0.000	1.6	16.0
22	29.853	70.8	56.9	13.9	63.1	- 0.0	59.2	56.2	6.8	13.1	1.6	78	110.8	50.0	57.7	0.000	0.4	15.9
23	29.792	72.6	54.5	18.1	63.3	+ 0.3	57.8	53.3	10.0	15.8	1.5	70	127.4	46.6	57.8	0.000	3.6	15.9
24	29.742	77.9	51.2	26.7	64.6	+ 1.7	58.4	53.5	11.1	19.4	1.4	67	131.7	41.5	58.0	0.000	6.2	15.9
25	29.725	76.5	54.8	21.7	64.9	+ 2.2	58.9	54.2	10.7	20.1	1.9	68	139.3	48.1	58.2	0.044	5.8	15.8
26	29.696	72.5	55.8	16.7	63.7	+ 1.2	56.9	51.1	12.6	25.1	1.6	64	130.7	45.9	58.2	0.000	3.7	15.8
27	29.813	73.4	52.2	21.2	62.6	+ 0.2	55.9	49.9	12.7	30.4	1.2	63	140.5	43.5	58.5	0.170	9.3	15.7
28	29.790	69.8	53.1	16.7	60.8	- 1.5	55.0	49.8	11.0	20.9	1.1	67	127.1	43.3	58.4	0.000	6.4	15.7
29	29.872	71.4	51.9	19.5	61.9	- 0.4	56.1	51.0	10.9	21.4	1.4	68	132.0	41.0	58.5	0.000	4.5	15.6
30	29.857	78.7	54.6	24.1	66.9	- 4.6	60.0	54.7	12.2	21.6	3.5	65	140.9	48.1	58.7	0.000	13.6	15.6
31	29.963	82.9	60.8	22.1	71.6	- 9.4	65.3	61.3	10.3	19.3	2.5	70	145.3	55.4	58.8	0.000	7.6	15.5
Means	29.782	70.5	53.5	17.1	61.4	- 1.2	56.3	51.9	9.6	18.7	2.5	71.2	124.8	46.2	57.3	1.317	5.0	16.1
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by mean of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

The mean reading of the Barometer for the month was 29.782 in., being 0.024 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 82°·9 on July 31; the lowest in the month was 45°·7 on July 2; and the range was 37°·2.

The mean of all the highest daily readings in the month was 70°·5, being 1°·6 lower than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 53°·5, being 0°·3 lower than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 17°·1, being 1°·2 less than the average for the 65 years, 1841-1905. †

The mean for the month was 61°·4, being 1°·2 lower than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1939	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
hours		hours				lbs.	lbs.	miles	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>	
July 1	3.2	0.70	3.0	0.66	SW: Calm	Var.: Calm	0.4	0.01	171	b	c z <sub>0</sub> c r <sub>0</sub> r	c Nbst r c	c w
2	3.8	0.81	3.8	0.81	Calm: N	SSW: SW	0.9	0.03	200	c b w m	b z <sub>0</sub> c Nbst	c r c t	c r <sub>0</sub> b
3	0.7	0.16	0.6	0.13	WSW	WSW: SW	1.8	0.15	287	b c	c Acu y	c Acu y	c
4	3.8	0.80	3.6	0.75	SW: WSW	SW	5.2	0.16	291	c	c Acu Cu	c r R t l c	c b
5	2.2	0.46	2.1	0.45	SW	Var.: SW	1.5	0.09	253	b c	c P t l Cunb	c Cunb P t bc t	c r <sub>0</sub> t l
6	0.4	0.08	0.4	0.08	SW	SSW: S	2.6	0.07	260	c b	b c Cu Frcu y	c p c y	c so-ha c
7	3.7	0.77	3.7	0.77	SE: SSE	SE: S	4.2	0.16	295	c p c	c r	c r c R t l c	r c
8	0.6	0.12	0.6	0.12	S: SSE: S	SSW: SW	9.2	0.84	426	c b c	c d r	r <sub>0</sub> d d <sub>0</sub> c	c i d <sub>0</sub>
9	3.7	0.74	3.4	0.68	SW: WSW	WSW	4.4	0.44	404	c	c Nbst	c r P c	c r c
10	0.2	0.04	0.1	0.03	WSW: SW	SSW: SW	3.2	0.30	355	c	c p c Stcu	c	c
11	0.0	0.00	0.0	0.00	SW	SW: W	3.8	0.43	387	c	c Acu	c Stcu	c
12	0.0	0.00	0.0	0.00	WSW	WSW: NNW: NW	0.6	0.06	252	c	c Nbst r <sub>0</sub>	c r <sub>0</sub> c Cist	c
13	3.0	0.60	3.0	0.60	NW: WNW	SW: SSW	0.8	0.05	229	c	b c Frcu y	c y	c b
14	0.0	0.00	0.0	0.00	SW	SSW: SW	1.2	0.13	278	b c	c Stcu	c Stcu y	c
15	0.1	0.02	0.1	0.02	SSW: SW	WSW: NNW	0.2	0.03	226	c d <sub>0</sub>	c Nbst d <sub>0</sub> r <sub>0</sub>	r r <sub>0</sub> c i r	i r c
16	0.0	0.00	0.0	0.00	NNW: W: WSW	WNW: W	0.9	0.10	268	c	c Acu	c i r	c r <sub>0</sub>
17	0.0	0.00	0.0	0.00	W: WSW	W: WSW	1.2	0.12	281	c	c Ci Stcu	c y	p c
18	1.2	0.23	1.2	0.23	WSW: SW	W: WSW	0.5	0.05	239	c r c	c r <sub>0</sub> c Ast	c	c bc
19	3.8	0.73	3.8	0.73	WSW: Calm	WSW: SW	0.7	0.05	224	c bc w	c bc y	b y	b w
20	2.7	0.50	2.6	0.49	WSW: SW	SW	0.4	0.06	237	b c	c b Frst	b z <sub>0</sub> y	b c
21	0.5	0.10	0.0	0.00	N: NNW	NNW: ENE	0.4	0.03	204	c b c	c Acu m <sub>0</sub>	c Stcu z <sub>0</sub> y	c
22	2.6	0.50	1.1	0.21	E: Calm	E: ENE	0.3	0.03	201	c	c Stcu	c Stcu	c
23	5.2	0.90	5.0	0.87	Calm	ENE: E: Calm	0.5	0.02	172	c	c Cist	c b c	c b
24	3.9	0.68	3.6	0.63	SSE: Calm	SW: SSW	0.6	0.05	222	c b c	c Cu y	c y	c
25	0.5	0.09	0.1	0.02	SW	SSW	0.5	0.05	230	c b	bc c Stcu y	c Stcu Frcu y	c r r <sub>0</sub>
26	5.7	1.00	5.7	1.00	SW: WSW	WSW: SW	1.2	0.11	268	c	c Ast Stcu	c bc Stcu y	b
27	2.5	0.43	2.5	0.43	SSW	SSW	2.7	0.38	327	b	b c Cu Acu y	c bc c v y	c r r
28	5.3	0.93	5.1	0.89	SW	SW: SSW	2.3	0.20	323	c b	b c Acu Ast	c Stcu	c b c
29	5.3	0.93	4.9	0.84	SSW: SW	SSW: SW	2.5	0.22	305	b c	c Acu Cu y	c Acu Cu y	c b
30	3.7	0.59	3.6	0.57	SSW: SW	SW	2.5	0.27	309	c	c b v y	bc b Ci y	b
31	6.3	1.00	6.3	1.00	SSW: SW	WSW: Calm	0.5	0.05	217	b c	c b Frcu	c y	c b
Means	2.4	0.45	2.3	0.42	...	...	...	0.15	269				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 56°·3, being 1°·8 lower than the average for the 65 years, 1841-1905.

The mean *Temperature of the Dew Point* for the month was 51°·9, being 2°·2 lower than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 71·2, being 2·0 less than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0·369 in., being 0·032 in. less than the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·8.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·308. The maximum daily amount of *Sunshine* was 13·6 hours on July 30.

The highest reading of the *Solar Radiation Thermometer* was 145°·3 on July 31; and the lowest reading of the *terrestrial Radiation Thermometer* was 33°·1 on July 2.

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 5, S. 38, W. 40, calm or nearly calm conditions, 11; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 9·2 lbs. on the square foot on July 8. The mean daily *Horizontal Movement of the Air* for the month was 269 miles; the greatest daily value was 426 miles on July 8, and the least daily value was 171 miles on July 1.

*Rain* (0·005 in. or over) fell on 13 days in the month, amounting to 1·317 in., as measured by gauge No. 6 partly sunk below the ground; being 1·062 in. less than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
Aug. 1	30.074	83.9	63.8	20.1	72.2	+ 10.2	65.9	62.0	10.2	19.7	2.2	71	151.2	54.1	58.8	0.000	11.1	15.4
2	30.070	81.7	59.7	22.0	67.9	+ 5.8	63.1	59.8	8.1	16.8	2.2	76	140.2	53.8	59.0	0.000	6.4	15.4
3	30.011	79.7	58.0	21.7	67.6	+ 5.5	60.7	55.6	12.0	21.0	3.2	65	139.4	53.7	59.3	0.000	11.2	15.4
4	29.898	81.1	55.5	25.6	67.1	+ 5.0	60.8	56.1	11.0	21.8	2.4	68	133.3	52.5	59.4	0.015	9.2	15.3
5	29.813	80.6	57.1	23.5	67.1	+ 5.0	62.3	59.0	8.1	19.7	2.1	76	134.2	51.2	59.6	0.000	2.6	15.2
6	29.781	84.0	60.9	23.1	70.4	+ 8.2	63.9	59.5	10.9	26.2	0.8	69	138.0	52.6	59.7	0.000	5.5	15.2
7	29.765	65.3	61.8	3.5	63.6	+ 1.4	62.7	62.1	1.5	5.8	1.0	95	74.2	54.2	59.8	0.619	0.0	15.1
8	29.734	79.2	62.2	17.0	68.2	+ 5.9	63.7	60.7	7.5	18.5	0.3	78	135.6	54.7	60.1	0.038	6.4	15.1
9	29.761	81.6	59.2	22.4	68.7	+ 6.4	62.6	58.4	10.3	22.1	1.7	70	145.7	50.4	60.1	0.000	6.9	15.0
10	29.786	66.7	60.6	6.1	63.5	+ 1.2	62.0	61.0	2.5	8.8	1.2	91	96.1	57.0	60.2	0.440	0.0	15.0
11	29.766	78.6	56.1	22.5	65.9	+ 3.5	61.2	57.9	8.0	19.5	0.5	75	142.9	48.8	60.3	0.000	7.3	14.9
12	29.736	77.8	55.6	22.2	63.9	+ 1.4	61.2	59.3	4.6	15.7	0.7	85	136.6	46.3	60.5	0.591	4.7	14.8
13	29.723	71.1	56.9	14.2	62.6	+ 0.1	57.5	53.3	9.3	18.0	2.7	72	128.8	53.8	60.3	0.000	2.3	14.8
14	29.759	66.1	56.2	9.9	61.0	- 1.5	57.0	53.7	7.3	12.4	2.9	77	86.3	49.0	60.3	0.000	0.0	14.7
15	29.795	74.4	53.6	20.8	62.6	+ 0.2	57.5	53.3	9.3	22.2	0.7	72	136.1	42.1	60.4	0.000	6.1	14.7
16	29.593	71.6	59.0	12.6	63.7	+ 1.4	59.0	55.4	8.3	19.1	3.8	74	126.7	54.0	60.3	0.004	2.9	14.6
17	29.667	68.7	53.9	14.8	61.8	- 0.3	54.5	47.7	14.1	25.3	3.1	59	133.0	43.0	60.3	0.000	5.3	14.6
18	29.734	71.0	53.0	18.0	61.1	- 0.8	55.1	49.7	11.4	21.9	2.7	66	135.7	43.0	60.4	0.000	6.3	14.5
19	29.418	68.6	56.3	12.3	61.1	- 0.6	56.9	53.5	7.6	18.0	6.2	76	98.7	51.7	60.3	0.020	1.3	14.4
20	29.533	66.7	52.5	14.2	59.2	- 2.3	52.9	46.8	12.4	23.4	6.5	63	122.0	43.6	60.3	0.047	3.9	14.4
21	29.787	70.8	46.1	24.7	56.7	- 4.6	51.3	45.7	11.0	24.4	1.9	67	141.0	34.1	60.2	0.013	9.7	14.3
22	29.898	61.8	48.3	13.5	55.5	- 5.6	52.6	49.9	5.6	15.9	1.8	81	89.3	38.5	60.0	0.012	0.1	14.3
23	29.970	73.0	49.0	24.0	59.4	- 1.5	54.3	49.6	9.8	20.1	0.3	70	142.7	41.3	60.0	0.000	10.7	14.2
24	29.962	74.8	49.5	25.3	61.3	+ 0.5	55.1	49.5	11.8	21.7	0.7	65	146.3	36.8	59.8	0.000	6.3	14.1
25	29.945	78.3	49.7	28.6	62.9	+ 2.2	56.4	50.8	12.1	23.3	1.0	65	141.6	35.3	59.8	0.000	7.8	14.1
26	29.965	69.6	56.4	13.2	60.8	+ 0.1	57.0	53.9	6.9	14.0	1.8	78	123.3	50.6	59.8	0.104	1.0	14.0
27	29.923	72.1	53.7	18.4	61.7	+ 1.1	57.5	54.2	7.5	15.4	1.3	76	120.4	45.0	59.8	0.000	4.2	13.9
28	29.744	67.2	53.1	14.1	59.6	- 0.8	57.2	55.3	4.3	12.3	0.5	86	98.2	43.2	59.7	0.212	0.7	13.9
29	29.682	56.9	50.5	6.4	54.7	- 5.6	53.6	52.7	2.0	7.5	0.5	93	65.9	43.4	59.5	0.076	0.0	13.8
30	29.791	61.7	43.7	18.0	54.2	- 5.9	50.3	46.3	7.9	16.4	1.0	75	108.7	33.5	59.5	0.001*	3.3	13.8
31	29.828	66.0	42.3	23.7	53.8	- 6.1	49.2	44.3	9.5	22.3	0.0	70	125.7	30.3	59.5	0.000	4.4	13.7
Means	29.804	72.6	54.7	17.9	62.6	+ 0.9	57.9	54.1	8.5	18.4	1.9	74.3	123.8	46.5	59.9	Sum 2.192	4.8	14.6
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

\* Rainfall (Column 16). The amount entered on August 30 is derived from dew.

The mean reading of the Barometer for the month was 29.804 in., being 0.014 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 84.0 on August 6; the lowest in the month was 42.3 on August 31; and the range was 41.7.

The mean of all the highest daily readings in the month was 72.6, being 1.8 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 54.7, being 1.1 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 17.9, being 0.7 greater than the average for the 65 years, 1841-1905. †

The mean for the month was 62.6, being 0.9 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSAE MINORIS		OSLER'S				Robin-son's				
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
Aug. 1	5.6	0.89	5.5	0.88	NNE:NE	ESE:ENE	1.4	0.12	254	b	b c Stcu	c bc Ci y	b c
2	5.5	0.87	5.1	0.82	ENE:NE	E:NE	1.0	0.16	283	c o	o m <sub>o</sub> c so-ha b	b c b Ci	b c b
3	6.1	0.98	6.1	0.98	NNE:NE	ENE	2.7	0.32	326	b c	c b Ci y	b Ci cu y	b
4	1.9	0.31	0.3	0.05	NE:ENE	E:NE	1.7	0.19	294	b c	c b z <sub>o</sub> y	b c Ci z <sub>o</sub> y	c l r
5	4.4	0.70	4.2	0.68	N:Calm	SSW:Calm	1.1	0.03	190	c	c m <sub>o</sub> b Cist	b c so-ha c y	c r <sub>o</sub> b
6	4.1	0.60	2.9	0.44	Calm:SW:W	W:Calm	0.9	0.03	198	b c	c Acu y	bc Frcu y	c
7	0.0	0.00	0.0	0.00	NE:N	Calm	0.2	0.00	164	c m <sub>o</sub>	c r <sub>o</sub> r m <sub>o</sub>	r R d d <sub>o</sub> m <sub>o</sub>	d <sub>o</sub> r c m <sub>o</sub>
8	2.0	0.30	1.9	0.28	Calm:W	SW:SSW	0.3	0.02	186	c r c	c m <sub>o</sub> c Acu	bc b Cu y	b c
9	0.7	0.11	0.7	0.11	Calm	SSW:Calm	0.5	0.03	186	c	c Acu	c Ci Acu Cunb	c
10	3.1	0.45	2.1	0.31	Calm	Calm	0.0	0.00	156	c r r	R c i r <sub>o</sub>	r r <sub>o</sub>	r r <sub>o</sub> c
11	6.5	0.96	6.4	0.95	SSW:Calm	Var.:Calm	0.4	0.00	164	f c b w	b c Frcu y	c y t	c b
12	0.6	0.09	0.5	0.08	Calm:WSW	Var.:NNW	0.6	0.03	200	b w m	b c so-ha	c t R t l c r t	c r c
13	1.7	0.24	1.7	0.24	NNW:NW	NW	0.9	0.07	255	c	c Frcu	c Acu Frcu y	c
14	4.2	0.58	3.8	0.50	NNW	N:NNE	0.3	0.02	207	c	c r <sub>o</sub> c Stcu	c	c
15	2.2	0.31	1.9	0.26	NNE:Calm	Calm:SSW	0.3	0.02	190	c m w	c Frcu y	c bc Acu Ci cu y	b c
16	0.7	0.10	0.5	0.08	SSW:SW	SW:WSW	3.7	0.49	378	c	c r <sub>o</sub> d <sub>o</sub> c	c Acu Cu v	c
17	5.9	0.81	4.7	0.64	WSW:WNW	NW:WNW:WSW	3.5	0.50	390	c d <sub>o</sub> c	c Frcu y	c Acu Stcu y	c b lu-ha
18	5.0	0.69	4.6	0.64	WSW:SW	WSW:SW	3.4	0.50	364	b c	c Acu	c Acu Ci v y	c b
19	4.4	0.60	4.1	0.57	SW	SW:W	4.6	0.66	410	b c	c Nbst r	r r <sub>o</sub> c p <sub>o</sub> c	c
20	7.5	0.97	7.3	0.95	SW	SW	3.2	0.28	348	c	c Acu	c P c y	c
21	6.1	0.78	5.8	0.74	WSW:SW	SW:WSW	1.4	0.05	233	c b w	b bc Cu Stcu	c r t bc y	bc c b
22	5.3	0.68	5.0	0.65	WSW	SW:Calm:ENE	1.1	0.05	233	b c	c r c Ast	c Nbst r <sub>o</sub>	r <sub>o</sub> c b
23	7.7	1.00	7.6	0.98	Calm:SE	SE:ESE	1.0	0.05	201	b i m w	b m bc Frcu	bc b Frcu y	b
24	4.7	0.60	4.5	0.58	Calm:SSE	SE:ESE:Calm	0.5	0.05	212	b c	c Cist Acu y	c Acu y	c
25	0.5	0.06	0.4	0.05	Calm	Calm:N:NE	0.3	0.03	180	c w	c m <sub>o</sub> c Acu	bc c Acu y	c
26	3.2	0.41	0.0	0.00	Calm:N	N:NE:Calm	0.2	0.02	180	c	c Stcu	c d <sub>o</sub> d <sub>o</sub>	r r c
27	4.1	0.50	1.9	0.23	Calm	SW:SSW	0.2	0.01	177	c	c m c Frst	c y	c
28	0.0	0.00	0.0	0.00	SSW:Calm	Calm	0.1	0.00	176	c	c r r <sub>o</sub> c	c r <sub>o</sub>	c r <sub>o</sub> rr
29	7.8	0.95	7.7	0.93	Calm:N	N	2.0	0.16	275	rr d	d o d <sub>o</sub>	c Nbst	c b
30	7.1	0.87	7.0	0.84	Calm:NNW	NNW	0.6	0.02	201	b w c m	c m bc	c Stcu	c b w
31	6.5	0.79	6.4	0.77	Calm	Calm:SW	0.1	0.01	170	b w c	c m <sub>o</sub> c Stcu	c bc c Cu Frcu y	c b
Means	4.0	0.55	3.6	0.49	...	...	...	0.13	238				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 57°·9, being 0°·4 higher than

The mean *Temperature of the Dew Point* for the month was 54°·1, being 0°·2 lower than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 74·3, being 2·5 less than

The mean *Elastic Force of Vapour* for the month was 0·422 in., being 0·002 in. less than

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·327. The maximum daily amount of *Sunshine* was 11·2 hours on August 3.

The highest reading of the *Solar Radiation Thermometer* was 151°·2 on August 1; and the lowest reading of the *Terrestrial Radiation Thermometer* was 30°·3 on August 31.

The *Proportions of Wind* referred to the cardinal points were N. 19, E. 13, S. 18, W. 20, calm or nearly calm conditions, 30; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 4·6 lbs. on the square foot on August 19. The mean daily *Horizontal Movement of the Air* for the month was 238 miles; the greatest daily value was 410 miles on August 19, and the least daily value was 156 miles on August 10.

*Rain* (0·005 in. or over) fell on 12 days in the month, amounting to 2·192 in., as measured by gauge No. 6 partly sunk below the ground; being 0·152 in. less than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
Sept. 1	29.879	67.6	42.4	25.2	55.2	- 4.6	50.7	46.1	9.1	17.4	0.2	71	125.0	31.9	59.3	0.011	5.8	13.6
2	29.931	66.5	47.7	18.8	56.1	- 3.6	49.7	42.7	13.4	23.5	0.6	61	122.8	36.1	59.1	0.000	9.8	13.6
3	30.005	66.7	40.0	26.7	54.4	- 5.2	48.9	42.8	11.6	20.6	1.2	65	122.7	27.9	59.1	0.021	8.2	13.5
4	30.021	63.2	49.8	13.4	56.5	- 3.0	51.3	46.0	10.5	18.9	0.3	68	115.0	39.9	58.8	0.000	3.1	13.4
5	30.028	65.7	43.9	21.8	54.9	- 4.5	50.5	46.0	8.9	19.4	0.6	71	120.1	30.5	58.7	0.001	2.6	13.4
6	29.795	62.9	50.2	12.7	56.0	- 3.2	53.8	52.0	4.0	9.2	1.7	86	85.3	41.4	58.6	0.212	0.3	13.3
7	29.647	63.6	50.0	13.6	56.8	- 2.2	53.2	49.8	7.0	14.7	0.9	77	99.6	41.1	58.6	0.033	0.5	13.2
8	29.893	64.8	51.3	13.5	57.5	- 1.3	54.6	52.1	5.4	10.9	0.0	83	112.8	45.6	58.4	0.023	1.4	13.1
9	30.021	63.6	52.5	11.1	57.3	- 1.3	53.0	49.0	8.3	13.2	3.7	74	103.9	48.5	58.3	0.000	1.5	13.1
10	30.049	63.7	51.4	12.3	57.6	- 0.8	52.9	48.5	9.1	15.3	3.7	71	121.1	44.1	58.4	0.000	1.4	13.0
11	30.060	68.8	44.6	24.2	56.9	- 1.2	54.0	51.4	5.5	11.3	0.4	82	113.0	29.7	58.2	0.000	1.5	13.0
12	30.014	79.0	61.0	18.0	67.5	+ 9.5	62.3	58.7	8.8	17.7	2.9	74	132.6	51.2	58.4	0.000	7.7	12.9
13	29.981	79.4	59.4	20.0	67.4	+ 9.6	62.2	58.6	8.8	20.0	1.2	74	132.6	49.1	58.4	0.000	9.0	12.9
14	29.804	73.2	53.3	19.9	62.0	+ 4.3	58.1	55.1	6.9	15.6	0.7	77	131.4	48.9	58.5	0.047	4.8	12.8
15	29.978	62.3	45.4	16.9	54.1	- 3.5	48.8	42.9	11.2	19.6	2.4	66	127.2	34.3	58.2	0.000	8.1	12.7
16	30.014	66.7	43.0	23.7	54.4	- 3.1	49.4	44.0	10.4	21.8	0.6	68	120.6	31.9	58.4	0.000	6.5	12.7
17	29.785	70.4	50.3	20.1	60.0	+ 2.8	54.5	49.6	10.4	22.6	2.4	69	123.0	41.6	58.3	0.007	6.4	12.6
18	29.690	68.2	58.0	10.2	61.7	+ 4.8	59.9	58.6	3.1	10.9	1.8	89	110.0	50.5	58.2	0.055	1.8	12.5
19	29.621	67.0	50.9	16.1	59.4	+ 2.9	55.6	52.4	7.0	15.3	1.7	78	115.5	43.1	58.3	0.011	2.4	12.5
20	29.515	68.4	51.1	17.3	57.8	+ 1.6	55.1	52.8	5.0	16.1	1.7	83	116.3	43.3	58.4	0.056	2.0	12.4
21	29.554	60.2	53.4	6.8	56.6	+ 0.7	55.3	54.2	2.4	7.0	1.1	91	74.2	45.7	58.3	0.075	0.0	12.3
22	29.774	70.2	52.1	18.1	60.1	+ 4.5	56.5	53.5	6.6	15.8	0.0	79	126.7	41.3	58.4	0.041	9.9	12.3
23	29.740	79.7	58.1	21.6	67.2	+ 11.8	63.2	60.6	6.6	17.5	0.7	79	133.7	52.6	58.6	0.000	8.0	12.2
24	29.702	74.6	57.1	17.5	64.4	+ 9.1	61.7	59.8	4.6	13.3	1.2	85	113.2	45.7	58.4	1.241	2.6	12.1
25	29.721	68.4	52.2	16.2	61.0	+ 5.8	59.8	58.9	2.1	9.8	0.2	93	102.0	42.7	58.3	0.065	1.7	12.1
26	29.774	64.0	48.4	15.6	56.4	+ 1.2	54.7	53.3	3.1	10.1	0.0	89	98.2	38.9	58.5	0.071	0.1	12.0
27	29.801	63.2	53.3	9.9	57.1	+ 2.0	55.8	54.8	2.3	9.8	0.0	91	108.3	47.6	58.3	0.896	2.1	11.9
28	29.722	62.8	51.7	11.1	57.0	+ 2.1	55.4	54.1	2.9	8.2	0.5	90	98.3	46.6	58.4	0.000	0.5	11.9
29	29.687	64.4	48.0	16.4	58.4	+ 3.7	55.7	53.5	4.9	17.6	0.0	83	105.6	36.6	58.3	0.021	2.3	11.8
30	29.778	66.6	47.0	19.6	54.8	+ 0.4	52.1	49.6	5.2	16.9	0.0	81	123.2	36.4	58.3	0.019	8.7	11.7
Means	29.833	67.5	50.6	16.9	58.5	+ 1.3	55.0	51.7	6.8	15.3	1.1	78.3	114.5	41.5	58.5	2.906	4.0	12.7
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

The mean reading of the Barometer for the month was 29.833 in., being 0.016 in. higher than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 79°·7 on September 23; the lowest in the month was 40°·0 on September 3; and the range was 39°·7.

The mean of all the highest daily readings in the month was 67°·5, being 1°·3 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 50°·6, being 0°·9 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 16°·9, being 0°·4 greater than the average for the 65 years, 1841-1905. †

The mean for the month was 58°·5, being 1°·3 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
hours		hours				lbs.	lbs.	miles					
Sept. 1	4.0	0.48	3.5	0.42	SSW: Calm	Calm: SSW	0.4	0.00	183	b w	c Ci Frcu	c Acu y	c r <sub>o</sub> r <sub>o</sub>
2	8.3	1.00	8.3	1.00	Calm: NNW	NNW	0.9	0.06	234	c	b' Frcu y	b c y	b
3	1.5	0.16	0.3	0.03	Calm	WNW	0.2	0.02	193	b x	b Ci m <sub>o</sub>	c	c r <sub>o</sub> c
4	8.1	0.90	8.1	0.90	W: WNW: N	N: NNE	0.8	0.06	233	c	c Stcu Cu	c y	c b
5	0.0	0.00	0.0	0.00	NNW: W	N: NNW	0.3	0.02	204	b w c	c m <sub>o</sub> Ast Acu	c Stcu Acu y	c r <sub>o</sub> c
6	4.7	0.52	4.7	0.52	WSW	SW: WSW	0.4	0.02	211	c	c d d <sub>o</sub>	d c Stcu bc	c t l r R c t
7	3.9	0.44	3.5	0.39	NW: NNW	NNE: NE	0.6	0.03	223	b c	c Stcu	c Stcu r	d <sub>o</sub> c
8	0.3	0.03	0.3	0.03	NNE: NE	NNE	2.3	0.22	320	c	c r c Nbst	c Stcu	c
9	4.4	0.49	3.9	0.44	N: NNE	NNE: NE	3.5	0.45	369	c	c Stcu	c d <sub>o</sub> c Acu Cu	c b
10	6.9	0.72	6.8	0.71	NNE	NNE	1.8	0.18	294	b c	c Stcu	c Stcu	c bc
11	0.9	0.10	0.5	0.06	Calm: WSW	WSW: WNW	0.2	0.01	206	b	c f e m b m <sub>o</sub>	b c m <sub>o</sub>	c m <sub>o</sub>
12	5.4	0.57	4.9	0.52	W: NW	NW: NNW	0.9	0.07	257	c m <sub>o</sub>	c m <sub>o</sub> b	b y	b
13	7.6	0.80	7.3	0.77	NNW: WSW	WSW	0.7	0.03	236	b c	c b Frcu	b Cu y	b w
14	1.7	0.18	1.4	0.14	WSW: SW	WSW: NNW: NNE	2.0	0.17	312	b w bc	b bc Cu Cist	c r	r c
15	8.5	0.90	7.1	0.75	N	N: Calm	1.4	0.05	221	c	c b bc Frcu	bc Acu Cu y	b w c
16	8.7	0.91	8.3	0.87	Calm: S	SSW: S	1.3	0.08	269	c w	c Acu Cu y	c Acu b y	b
17	0.0	0.00	0.0	0.00	S: SW	SW: SSW	2.6	0.30	339	b c	c Ast Acu y	c y	c r <sub>o</sub> c
18	5.1	0.52	3.7	0.38	SW: SSW	SSW	1.2	0.07	264	c	c r <sub>o</sub> d c	c	c
19	4.0	0.41	3.4	0.35	SSW: SW	SW: SSW	1.0	0.07	276	c r c	c Acu Cunb	c Acu Cunb	c b c
20	0.0	0.00	0.0	0.00	SSE	SW: SSW	1.7	0.13	276	c r <sub>o</sub> r <sub>o</sub>	c r <sub>o</sub> i d <sub>o</sub>	c Ci Frcu	c r c
21	7.4	0.76	7.0	0.72	SSW: Calm	SSW	0.1	0.00	199	c d c	c r <sub>o</sub> r r <sub>o</sub>	r r <sub>o</sub> c	c b
22	8.1	0.83	7.0	0.72	S: SSW	S: SSE	0.8	0.06	246	b c r b	b bc Cu Acu	b Frcu y	b w
23	2.3	0.23	1.9	0.20	SSE	SSE: Calm	1.2	0.07	238	b	b Cist	b c Acu p c	c
24	0.0	0.00	0.0	0.00	SSE	SSW: Calm	0.2	0.00	187	c b c	c Acu Cist	c r	i R c r
25	9.7	0.94	8.8	0.86	Calm	Calm: SSW	0.1	0.00	161	c r <sub>o</sub>	r r <sub>o</sub>	c	c b
26	0.0	0.00	0.0	0.00	Calm	Calm	0.0	0.00	152	b c	c r <sub>o</sub> f c	c r <sub>o</sub> r <sub>o</sub>	r <sub>o</sub> c r <sub>o</sub>
27	0.0	0.00	0.0	0.00	Calm	SE: NE: NW	0.2	0.00	190	r r m c	bc c Ast Nbst	c r <sub>o</sub> r r	r r t l c
28	1.1	0.11	0.4	0.04	WSW: SSW	SSW: S	0.6	0.03	230	c	c Ast	c Ast Nbst	c
29	10.3	1.00	10.3	1.00	S: SSW	SW: SSW	0.5	0.04	246	c	c d c Acu	c Acu	c b w
30	8.7	0.85	6.9	0.67	S	S	1.6	0.11	274	b w	b bc Acu Frcu	bc Cist c r	c b c
Means	4.4	0.46	3.9	0.42	...	...	...	0.08	241				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 55°·0, being 0°·9 higher than the average for the 65 years, 1841-1905.

The mean *Temperature of the Dew Point* for the month was 51°·7, being 0°·6 higher than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 78·3, being 1·6 less than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0·386, in., being 0·007 in. greater than the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·8.

The mean proportion of *Sunshine* for the month (constant sunshine by represented by 1) was 0·318. The maximum daily amount of *Sunshine* was 9·9 hours on September 22.

The highest reading of the *Solar Radiation Thermometer* was 133°·7 on September 23; and the lowest reading of the *Terrestrial Radiation Thermometer* was 27°·9 on September 3.

The *Proportions of Wind* referred to the cardinal points were N. 21, E. 6, S. 34, W. 22, calm or nearly calm conditions, 17; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 3·5 lbs. on the square foot on September 9. The mean daily *Horizontal Movement of the Air* for the month was 241 miles; the greatest daily value was 369 miles on September 9, and the least daily value was 152 miles on September 26.

*Rain* (0·006 in. or over) fell on 18 days in the month, amounting to 2·908 in., as measured by gauge No. 6 partly sunk below the ground; being 0·756 in. greater than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
		Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
Oct. 1	29.803	62.6	47.9	14.7	54.2	+ 0.1	51.2	48.3	5.9	14.0	0.0	80	120.7	37.9	58.3	0.061	2.4	11.7
2	29.548	57.8	46.4	11.4	52.3	- 1.4	50.4	48.5	3.8	10.5	0.4	87	86.8	40.4	58.0	0.160	1.2	11.6
3	29.383	59.0	43.0	16.0	51.5	- 1.8	48.7	45.7	5.8	15.1	1.2	81	103.2	36.9	58.0	0.328	4.8	11.5
4	29.164	59.6	49.8	9.8	54.2	+ 1.2	48.4	41.8	12.4	21.3	6.1	63	101.4	44.0	57.7	0.001	5.4	11.5
5	29.360	55.3	45.6	9.7	50.8	- 2.0	47.9	44.7	6.1	12.0	3.8	80	72.3	39.1	57.4	0.149	0.1	11.4
6	29.647	57.8	45.9	11.9	51.5	- 1.0	47.0	41.8	9.7	18.5	3.4	69	101.3	41.8	57.2	0.000	6.6	11.4
7	29.488	58.5	48.7	9.8	53.9	+ 1.6	51.2	48.6	5.3	8.5	2.9	82	73.1	42.4	56.9	0.141	0.0	11.3
8	29.709	59.8	47.0	12.8	52.7	+ 0.7	48.7	44.4	8.3	15.5	2.2	73	98.3	41.3	56.9	0.051	3.3	11.2
9	29.453	64.7	50.9	13.8	59.6	+ 8.0	56.7	54.3	5.3	12.5	2.1	82	93.7	45.1	56.6	0.147	0.3	11.2
10	29.665	57.9	46.0	11.9	51.3	- 0.0	47.9	44.1	7.2	13.1	2.2	77	108.7	39.0	56.6	0.000	1.5	11.1
11	29.873	60.0	44.2	15.8	51.3	+ 0.4	48.0	44.4	6.9	15.1	1.7	77	101.6	38.0	56.4	0.000	5.7	11.0
12	29.995	60.4	46.4	14.0	54.1	+ 3.5	51.2	48.4	5.7	10.9	1.1	81	88.6	39.0	56.3	0.028	2.7	11.0
13	29.807	61.9	55.1	6.8	58.7	+ 8.4	57.0	55.7	3.0	5.4	2.2	89	76.0	53.4	56.1	0.162	0.0	10.9
14	29.941	61.6	49.1	12.5	56.1	+ 6.0	51.6	47.2	8.9	18.6	2.8	72	106.8	41.0	56.0	0.000	8.0	10.8
15	29.978	60.0	45.2	14.8	52.6	+ 2.7	49.6	46.4	6.2	13.2	1.4	79	96.2	36.0	56.0	0.000	5.0	10.8
16	29.737	60.6	49.2	11.4	56.6	+ 6.8	55.5	54.6	2.0	6.2	0.0	93	75.2	43.2	55.9	0.345	0.0	10.7
17	29.718	63.4	49.8	13.6	55.4	+ 5.8	52.2	49.1	6.3	14.9	2.1	80	114.0	42.0	56.0	0.000	8.8	10.7
18	29.620	61.5	50.6	10.9	55.0	+ 5.7	52.2	49.6	5.4	11.2	1.7	81	111.0	45.5	55.9	0.129	3.1	10.6
19	29.940	58.1	42.3	15.8	51.6	+ 2.5	47.2	42.1	9.5	17.7	1.9	70	98.7	31.9	55.7	0.000	6.0	10.5
20	30.151	63.7	38.7	25.0	48.6	- 0.2	46.5	44.2	4.4	13.7	0.2	85	108.2	29.1	55.8	0.000	6.5	10.5
21	30.044	60.0	42.8	17.2	49.5	+ 0.9	46.5	42.9	6.6	15.7	0.0	79	108.7	31.1	55.5	0.000	9.1	10.4
22	29.728	56.5	39.4	17.1	47.3	- 1.0	45.7	43.8	3.5	10.9	0.0	88	101.8	27.0	55.2	0.000	7.9	10.3
23	29.771	56.1	38.7	17.4	48.3	+ 0.2	46.5	44.5	3.8	10.4	0.4	86	95.3	30.6	55.0	0.001*	6.9	10.3
24	29.912	52.5	31.6	20.9	41.4	- 6.5	39.8	37.6	3.8	10.0	0.0	86	93.4	24.1	54.7	0.000	5.3	10.2
25	29.754	47.5	31.0	16.5	38.7	- 9.0	38.3	37.8	0.9	4.1	0.0	96	67.8	23.3	54.3	0.001*	1.1	10.1
26	29.624	52.6	39.8	12.8	47.0	- 0.6	44.4	41.3	5.7	14.0	0.0	80	84.5	33.2	54.1	0.281	3.7	10.1
27	29.519	48.2	38.0	10.2	43.7	- 3.8	41.8	39.3	4.4	8.9	1.7	84	59.6	32.7	53.8	0.007	2.3	10.0
28	29.765	52.0	41.7	10.3	47.1	- 0.3	44.4	41.2	5.9	10.2	2.0	79	79.8	31.9	53.4	0.000	2.3	9.9
29	29.775	51.5	36.8	14.7	43.7	- 3.6	41.9	39.5	4.2	10.4	0.5	85	65.8	29.0	53.2	0.000	0.1	9.9
30	29.623	56.0	40.2	15.8	49.0	+ 1.8	47.3	45.4	3.6	7.3	0.2	87	71.6	29.7	53.1	0.082	0.0	9.8
31	29.776	53.2	39.3	13.9	47.5	+ 0.4	45.1	42.3	5.2	8.9	1.3	82	73.4	31.0	52.8	0.000	0.1	9.8
Means	29.718	57.8	43.9	13.8	50.8	+ 0.8	48.1	45.1	5.7	12.2	1.5	81.1	91.5	36.5	55.8	Sum 2.074	3.6	10.7
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

\* Rainfall (Column 16). The amount entered on October 23 is derived from dew, and that on October 25 from wet fog.

The mean reading of the Barometer for the month was 29.718 in., being 0.010 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 64.7 on October 9; the lowest in the month was 31.0 on October 25; and the range was 33.7.

The mean of all the highest daily readings in the month was 57.8, being 0.8 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 43.9, being 0.1 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 13.8, being 0.6 greater than the average for the 65 years, 1841-1905. †

The mean for the month was 50.8, being 0.8 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).



MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			ROBINSON'S					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures					
hours		hours				lbs.	lbs.	miles					
Oct. 1	0.7	0.06	0.2	0.02	SSW:WSW	W:SW	1.4	0.04	260	c	c r c	c	c b
2	10.2	0.95	10.1	0.94	SSW	SSW:SW	3.7	0.24	337	b c d.	c i r <sub>o</sub> r r	r r c	c b
3	4.6	0.42	4.6	0.42	SW	SSW	14.3	1.35	485	b	b c Ast Cu	c r <sub>o</sub> r	r r c q
4	3.5	0.33	3.2	0.29	SW:WSW	WSW:SW	18.5	2.93	639	b q	c p <sub>o</sub> q	c q b y	c p c
5	6.0	0.56	4.9	0.46	SW	SW:WSW	3.5	0.40	386	c b	c r c	r r r <sub>o</sub> b	b c r <sub>o</sub>
6	2.9	0.27	2.4	0.22	WSW	WSW:SSW	4.2	0.46	378	c	b c Ast y	c Cist so-ha y	c
7	9.6	0.89	9.6	0.89	SSW	WSW	7.4	0.63	401	c	c i r <sub>o</sub>	r <sub>o</sub> r r c b	b c b
8	0.0	0.00	0.0	0.00	WSW	SW:SSW	5.5	0.71	417	b	c b c Ast Cu	c y r c	c i d <sub>o</sub>
9	4.9	0.44	3.9	0.35	SW	WSW	9.4	1.13	462	c i r	i r c Frcu	c Frcu	c
10	11.0	1.00	11.0	1.00	WSW:SW	WSW:SW	1.4	1.10	280	bc	bc c Cist so-ha	c Cist so-ha b	b w
11	9.8	0.89	9.3	0.85	WSW:SW	WSW:SW	2.9	0.23	325	b w	b c Ast Frst	c Ci Acu b	b c
12	0.0	0.00	0.0	0.00	SW	SW	3.7	0.54	366	c	c Nbst	r <sub>o</sub> c r	r c i r
13	7.6	0.69	7.1	0.65	SW	SW	5.0	0.81	452	i r	r c d c	c Stcu	c p c
14	4.9	0.44	2.7	0.25	WSW	W:SW	3.7	0.25	339	c b	b Ci Frcu	b c Frcu y	c
15	0.8	0.07	0.8	0.07	SSW:SW	SSW	0.2	0.00	197	c	bc Acu Cist so-ha	c	c
16	5.5	0.48	4.5	0.39	S:SW	SW:WSW	1.0	0.05	241	c r r	r R i d <sub>o</sub>	c r <sub>o</sub> c	c b c
17	3.5	0.30	3.1	0.27	SW	SW:SSW	2.5	0.13	304	c b w	b Ci	b Frcu	b c r <sub>o</sub>
18	7.6	0.66	6.2	0.54	SSW:SW	WSW	3.5	0.28	374	c r <sub>o</sub> c	c b c	c r <sub>o</sub> b c Frcu	c r <sub>o</sub> b
19	11.5	1.00	10.5	0.91	WSW:W	W:SW	2.6	0.39	381	b c	bc Cu	bc Ci Cu	b f
20	11.1	0.97	11.1	0.97	Calm	Calm	0.0	0.00	170	b f x	c f b Ci	b Cist	b
21	11.5	1.00	11.5	1.00	Calm:SE	SE:E	1.1	0.05	221	b c w	b	b y	b
22	9.1	0.76	8.1	0.68	Calm:SE	SE:ENE	0.3	0.03	197	b x m <sub>o</sub>	b bc Frst	bc	b m
23	11.2	0.93	10.4	0.87	ENE:Calm	E:Calm	0.2	0.02	197	b c m w	c m b	b	b
24	8.2	0.68	4.1	0.34	Calm	E:Calm	0.0	0.00	166	b x Fe	Fe f b m	b m <sub>o</sub>	b m f
25	0.0	0.00	0.0	0.00	Calm	Calm	0.0	0.00	141	Fe Fe	Fe Fe f	F F g	F F
26	3.4	0.29	2.0	0.17	N	NW:WSW	3.5	0.11	272	F r <sub>o</sub> d c	c bc b m <sub>o</sub>	b c Acu m <sub>o</sub>	c r r c
27	1.6	0.13	0.1	0.01	NW:NNW	N:NNW	2.5	0.17	318	b c r <sub>o</sub> c m <sub>o</sub>	bc c Nbst m <sub>o</sub>	c p <sub>o</sub> c m <sub>o</sub>	c m <sub>o</sub>
28	4.9	0.41	0.7	0.06	N	N	2.3	0.14	286	c m	c Stcu Cist	c Frcu	c w m
29	3.3	0.26	3.3	0.26	Calm	Calm:S	0.0	0.00	158	f f	b f f	b c Acu m	c m
30	6.6	0.53	3.0	0.24	S:SSW	SSW:NNW	0.4	0.03	222	c	c Ast Nbst r <sub>o</sub>	c d <sub>o</sub> r	r c
31	1.5	0.12	0.8	0.06	NNW:SW	SW:SSW	1.1	0.05	247	c b c	c Ast m	c Stcu	c
Means	5.7	0.50	4.8	0.43	...	...	...	0.36	310				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 48°·1, being 0°·2 higher than the average for the 65 years, 1841-1905.

The mean *Temperature of the Dew Point* for the month was 45°·1, being 0°·5 lower than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 81·1, being 3·8 less than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0·302 in., being 0·006 in. less than the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·2.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·332. The maximum daily amount of *Sunshine* was 9·1 hours on October 21.

The highest reading of the *Solar Radiation Thermometer* was 120°·7 on October 1; and the lowest reading of the *terrestrial Radiation Thermometer* was 23°·3 on October 25.

The *Proportions of Wind* referred to the cardinal points were N. 8, E. 7, S. 35, W. 36, calm or nearly calm conditions, 14; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 18·5 lbs. on the square foot on October 4. The mean daily *Horizontal Movement of the Air* for the month was 310 miles; the greatest daily value was 639 miles on October 4, and the least daily value was 141 miles on October 25.

*Rain* (0·005 in. or over) fell on 14 days in the month, amounting to 2·074 in., as measured by gauge No. 6 partly sunk below the ground; being 0·708 in. less than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (Saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
Nov. 1	29.499	54.8	43.0	11.8	49.8	+ 2.8	46.3	42.1	7.7	18.3	1.3	75	93.2	36.0	52.8	0.083	3.5	9.7
2	29.573	54.3	42.4	11.9	47.6	+ 0.8	44.3	40.1	7.5	13.4	3.2	75	74.8	36.0	52.8	0.000	5.0	9.7
3	29.765	55.4	46.9	8.5	51.3	+ 4.7	48.1	44.6	6.7	11.7	3.5	78	71.4	42.1	52.7	0.000	0.1	9.6
4	29.773	62.4	52.8	9.6	58.3	+ 11.9	56.1	54.3	4.0	7.2	1.8	86	82.0	51.0	52.7	0.007	0.4	9.5
5	30.018	68.1	56.7	11.4	61.0	+ 14.9	58.5	56.5	4.5	10.7	2.8	85	107.9	54.9	52.7	0.000	6.7	9.5
6	30.059	58.5	53.4	5.1	55.6	+ 9.8	54.3	53.2	2.4	4.1	1.5	91	63.6	48.2	52.6	0.000	0.0	9.4
7	29.907	55.9	51.5	4.4	54.2	+ 8.8	51.6	49.1	5.1	8.6	1.4	83	69.2	46.2	52.8	0.000	0.0	9.4
8	29.850	55.5	47.8	7.7	52.5	+ 7.5	49.7	46.8	5.7	9.4	2.2	81	60.8	41.0	52.9	0.000	0.0	9.3
9	29.864	50.7	40.4	10.3	47.3	+ 2.7	46.1	44.7	2.6	6.4	0.2	91	65.4	30.0	52.9	0.001*	0.5	9.2
10	29.793	60.0	47.7	12.3	51.8	+ 7.5	50.3	48.7	3.1	7.8	0.6	89	94.8	40.4	53.0	0.000	4.0	9.2
11	29.612	62.3	49.2	13.1	54.6	+ 10.6	52.6	50.7	3.9	10.5	0.9	87	99.5	42.0	53.2	0.083	4.0	9.1
12	29.726	61.6	52.0	9.6	57.0	+ 13.3	53.9	51.1	5.9	10.3	1.7	81	77.5	46.0	53.0	0.050	0.5	9.1
13	29.772	61.9	56.0	5.9	59.5	+ 16.0	56.0	53.1	6.4	9.8	2.1	79	75.2	50.8	53.0	0.101	0.0	9.0
14	30.038	59.7	46.8	12.9	55.5	+ 12.2	53.5	51.7	3.8	8.3	0.8	87	75.7	36.7	53.2	0.006	...	...
15	30.224	50.8	46.3	4.5	48.6	+ 5.5	48.4	48.2	0.4	2.0	0.0	98	57.0	45.3	53.0	0.000	0.0	8.9
16	30.066	54.9	47.2	7.7	51.8	+ 9.0	51.1	50.5	1.3	3.5	0.2	95	61.0	45.1	53.0	0.023	0.0	8.9
17	30.025	54.0	50.6	3.4	52.9	+ 10.3	51.1	49.4	3.5	7.6	0.6	87	66.5	44.0	53.3	0.000	0.1	8.8
18	29.921	55.4	47.8	7.6	52.6	+ 10.2	51.2	49.8	2.8	7.8	0.6	90	71.0	37.7	53.0	0.030	0.1	8.8
19	29.706	55.0	43.2	11.8	47.4	+ 5.1	44.4	40.7	6.7	12.1	1.5	77	65.3	37.0	53.1	0.288	4.0	8.7
20	29.394	50.9	43.0	7.9	46.4	+ 4.2	45.2	43.7	2.7	6.7	1.4	91	56.0	36.8	52.9	0.587	0.0	8.7
21	29.083	46.0	35.5	10.5	41.5	- 0.6	40.3	38.7	2.8	6.9	0.2	90	54.5	28.2	52.7	0.004	0.0	8.6
22	29.171	47.6	39.3	8.3	42.4	+ 0.3	40.2	37.0	5.4	12.6	1.2	81	62.0	29.3	52.6	0.013	3.9	8.6
23	28.997	57.1	41.3	15.8	48.1	+ 6.1	44.9	40.9	7.2	17.9	0.0	76	71.4	36.1	52.2	0.115	0.3	8.5
24	29.461	46.9	36.4	10.5	42.3	+ 0.3	39.7	35.8	6.5	10.8	1.8	78	57.3	28.8	52.0	0.000	1.7	8.5
25	29.525	52.9	36.5	16.4	47.0	+ 5.1	44.5	41.5	5.5	10.1	1.0	81	63.0	30.0	51.8	1.039	0.3	8.4
26	29.385	52.9	36.8	16.1	46.0	+ 4.2	43.2	39.6	6.4	10.9	1.7	78	59.4	28.3	51.3	0.360	2.2	8.4
27	29.707	49.3	30.1	19.2	41.0	- 0.7	39.0	36.1	4.9	10.6	0.0	83	58.6	23.2	51.0	0.016	3.8	8.4
28	29.440	52.0	38.3	13.7	47.6	+ 6.1	46.5	45.2	2.4	7.2	0.5	91	59.1	31.1	50.9	0.190	0.0	8.3
29	29.616	43.4	32.3	11.1	37.3	- 3.9	36.2	34.4	2.9	7.6	0.8	90	51.6	25.0	51.6	0.000	0.0	8.3
30	29.317	51.4	35.5	15.9	44.8	+ 3.8	42.4	39.2	5.6	10.7	0.3	80	66.2	30.5	50.5	0.093	3.0	8.2
Means	29.676	54.7	44.2	10.5	49.8	+ 6.3	47.7	45.2	4.5	9.4	1.2	84.5	69.7	37.9	52.5	3.089	1.5	8.9
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

\* Rainfall (Column 16). The amount entered on November 9 is derived from dew.

The mean reading of the Barometer for the month was 29.676 in., being 0.089 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR

The highest in the month was 68° 1 on November 5; the lowest in the month was 30° 1 on November 27; and the range was 38° 0.

The mean of all the highest daily readings in the month was 54° 7, being 5° 8 higher than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 44° 2, being 5° 8 higher than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 10° 5, being equal to the average for the 65 years, 1841-1905. †

The mean for the month was 49° 8, being 6° 3 higher than the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p.xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSÆ MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		Horizontal Movement of the Air				
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures		0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
hours		hours				lbs.	lbs.	miles					
Nov. 1	12.0	0.96	11.8	0.95	SSW:WNW	WNW:SW	3.3	0.38	402	c r r	r d <sub>0</sub> c Cist	b c Frcu b y	b
2	4.8	0.38	3.9	0.31	SW:WSW	WSW	2.6	0.23	363	b c	bc Acu	bc Acu Stcu	c b c r <sub>0</sub>
3	0.0	0.00	0.0	0.00	WSW	SW:SSW	2.1	0.15	317	c	c Acu	c Stcu	c d <sub>0</sub>
4	0.0	0.00	0.0	0.00	SSW:SW	WSW	3.1	0.61	465	d <sub>0</sub> d <sub>0</sub>	d <sub>0</sub> c Stcu	c Ci Acu	c
5	3.5	0.28	2.6	0.21	WSW	WSW	4.0	0.33	404	c	c b Ci	b	c b
6	0.0	0.00	0.0	0.00	WSW:SW	SW	0.7	0.12	303	b c	c	c m	c
7	3.6	0.29	2.8	0.22	SW	SW	1.1	0.13	299	c	c d <sub>0</sub>	c Stcu	c
8	12.3	0.98	12.3	0.98	SW	SW:SSW	2.0	0.12	287	b c	c Stcu	c Stcu b	b w
9	0.0	0.00	0.0	0.00	SSW:S	SSE:Calm	0.5	0.02	209	b c b w	b c Stcu	c Stcu	c
10	7.7	0.62	6.7	0.53	Calm:S	SE:SSE	0.2	0.01	191	c	c b c	c b	c
11	7.3	0.59	6.1	0.49	SE:SSE	S:SSW	3.4	0.12	283	c b lu-ha bc	bc Acu	b c c r r	c
12	3.3	0.25	1.1	0.08	SSW:S	SSW	3.6	0.43	391	c lu-ha c	c i r c Stcu	p c	c b
13	4.7	0.36	4.1	0.31	S:SSW	SSW	4.6	0.85	471	b c	c Ast Acu	c Nbst d r <sub>0</sub>	r <sub>0</sub> r c
14	..	..	..	..	SSW:SW	SW	3.2	0.13	279	c	c Acu Ci	c b m <sub>0</sub>	b m w
15	0.0	0.00	0.0	0.00	Calm	Calm	0.0	0.00	157	f f	c f f	c f f	f f
16	0.0	0.00	0.0	0.00	ESE	E:ESE	0.2	0.03	221	f m	c p <sub>0</sub> m <sub>0</sub>	c p <sub>0</sub> m <sub>0</sub>	c r r <sub>0</sub> m
17	0.8	0.06	0.7	0.05	Calm:SW	SW	0.5	0.01	220	c m <sub>0</sub>	c Stcu	c Stcu	c
18	0.0	0.00	0.0	0.00	Calm:SSW	SSW	4.4	0.27	309	c w	c m c Stcu	c Stcu d c	c d <sub>0</sub> r
19	5.5	0.42	4.5	0.34	WNW:WSW	SW:SSW	5.8	0.17	314	c r r c	c b Cist	b c Cist so-ha	c r <sub>0</sub> b c
20	8.9	0.67	7.9	0.59	SSW:S	S:SW	6.2	0.38	361	c r r <sub>0</sub>	c r <sub>0</sub>	r <sub>0</sub> r r	r b c
21	0.0	0.00	0.0	0.00	SW:Calm	Calm	0.4	0.03	201	b x	c Cist so-ha m	c Ci so-ha f	F r m
22	4.3	0.32	3.3	0.25	Calm:W	W:SW	1.1	0.05	258	r c m	c b Frcu m	b c Stcu	c b c
23	11.6	0.87	9.1	0.69	S:SW	SW:WSW	33.2	2.24	541	c r r <sub>0</sub>	c r <sub>0</sub> c	c p c q r	c b c
24	5.0	0.38	4.1	0.31	SW:WSW	WSW:SW	1.0	0.05	251	c b c	c Ast f m	b Cu m c	c b
25	0.0	0.00	0.0	0.00	SSW:SW	SW	9.5	0.54	409	b c	c r c p c	c Ast Acu	r r R
26	13.5	1.00	13.5	1.00	SW:WSW	W:WSW	26.2	1.05	402	r r R c	c b c so-ha prhn	b c Frst b	b x
27	0.0	0.00	0.0	0.00	SW	SSW	5.5	0.38	321	b x m	b Acu Cicu m	b c r	c d <sub>0</sub>
28	8.5	0.63	6.0	0.45	SW:WSW	SSW:WSW	2.5	0.19	267	c r d	c m c so-ha	c Cist Acu	c b
29	8.4	0.62	7.0	0.52	SW:Calm	Calm:SSW	0.0	0.00	222	b x m	c Cist so-ha prhn f	c Ast Acu f	b x i m
30	9.6	0.71	8.3	0.61	SSW:SW	WSW:SW	7.3	0.47	428	c i r	i r b c Frst	bc p b	bc b
Means	4.7	0.36	4.0	0.31	...	...	..	0.32	318				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean *Temperature of Evaporation* for the month was 47°·7, being 5°·8 higher than the average for the 65 years, 1841-1905.

The mean *Temperature of the Dew Point* for the month was 45°·2, being 5°·5 higher than the average for the 65 years, 1841-1905.

The mean *Degree of Humidity* for the month was 84·5, being 2·1 less than the average for the 65 years, 1841-1905.

The mean *Elastic Force of Vapour* for the month was 0·303 in., being 0·057 in. greater than the average for the 65 years, 1841-1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·170. The maximum daily amount of *Sunshine* was 6·7 hours on November 5.

The highest reading of the *Solar Radiation Thermometer* was 107°·9 on November 5; and the lowest reading of the *terrestrial Radiation Thermometer* was 23°·2 on November 27.

The *Proportions of Wind* referred to the cardinal points were N. 0, E. 5, S. 44, W. 41, calm or nearly calm conditions, 10; the whole month being represented by 100.

The *Greatest Pressure of the Wind* in the month was 33·2 lbs. on the square foot on November 23. The mean daily *Horizontal Movement of the Air* for the month was 318 miles; the greatest daily value was 541 miles on November 23, and the least daily value was 157 miles on November 15.

*Rain* (0·006 in. or over) fell on 17 days in the month, amounting to 3·089 in., as measured by gauge No. 6 partly sunk below the ground; being 0·869 in. greater than the average fall for the 65 years, 1841-1905.

MONTH and DAY 1938	BAROMETER	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			Degree of Humidity (saturation = 100)	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 6 inches above the ground	Daily Duration of Sunshine	Sun above Horizon
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit)	Of the Air					Of Evaporation	Of the Dew Point	Mean	Greatest	Least		Of Radiation		Of the Earth 4 ft. below the Surface of the Soil			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value					Highest in Sun's Rays	Lowest on the Grass				
		°	°	°	°	°	°	°					°	°				
Dec. 1	29.192	48.7	41.0	7.7	44.6	+ 3.7	41.5	37.1	7.5	12.8	3.7	75	63.8	34.5	50.3	0.124	3.9	8.2
2	29.454	49.7	40.3	9.4	45.4	+ 4.5	43.0	39.8	5.6	9.7	1.9	81	68.0	33.0	50.0	0.063	5.2	8.2
3	29.733	46.4	33.6	12.8	42.2	+ 1.1	39.6	35.7	6.5	12.9	2.0	78	56.0	25.8	49.7	0.000	3.5	8.2
4	29.876	49.9	29.7	20.2	40.4	- 0.9	39.1	37.3	3.1	7.2	0.7	88	56.8	22.8	49.3	0.000	0.9	8.1
5	29.611	55.1	39.2	15.9	48.8	+ 7.3	46.2	43.3	5.5	12.3	0.7	80	60.3	31.9	49.5	0.058	0.4	8.1
6	29.799	51.8	40.1	11.7	45.8	+ 4.3	43.8	41.3	4.5	9.0	2.9	84	64.1	32.0	49.2	0.000	2.6	8.1
7	29.661	49.7	40.6	9.1	45.5	+ 4.2	43.6	41.2	4.3	8.8	2.3	85	61.3	37.7	49.2	0.005	0.5	8.0
8	29.264	51.8	40.6	11.2	45.7	+ 4.7	43.7	41.2	4.5	9.5	0.6	84	57.8	33.2	49.0	0.052	0.0	8.0
9	29.288	48.7	33.3	15.4	43.0	+ 2.4	41.3	38.9	4.1	8.2	1.0	85	59.6	25.1	49.0	0.247	4.3	8.0
10	29.141	52.0	47.4	4.6	49.4	+ 9.0	48.1	46.7	2.7	4.6	0.9	90	58.9	43.2	48.9	0.194	0.0	8.0
11	29.203	54.0	46.8	7.2	50.4	+ 10.2	48.5	46.5	3.9	6.0	1.2	87	61.8	39.3	48.7	0.034	0.1	7.9
12	29.484	55.2	43.3	11.9	50.5	+ 10.2	48.7	46.8	3.7	7.9	0.4	87	71.0	30.7	48.9	0.104	3.7	7.9
13	29.709	51.0	43.5	7.5	48.3	+ 7.8	47.6	46.9	1.4	4.8	0.0	95	60.4	31.1	48.9	0.003*	0.3	7.9
14	29.767	52.7	39.4	13.3	49.1	+ 8.4	48.0	46.9	2.2	4.4	0.4	92	58.7	32.8	49.0	0.071	0.0	7.9
15	29.809	50.4	38.1	12.3	44.7	+ 3.9	43.8	42.8	1.9	5.2	0.0	93	63.5	33.3	49.0	0.009	2.0	7.9
16	29.789	48.6	44.9	3.7	47.0	+ 6.3	46.3	45.4	1.6	3.2	1.0	95	50.7	43.7	49.0	0.410	0.0	7.8
17	30.078	44.9	27.7	17.2	36.6	- 3.8	34.9	32.0	4.6	8.9	1.0	83	41.6	22.3	48.9	0.015	0.0	7.8
18	30.052	29.0	25.0	4.0	27.0	- 13.0	25.8	22.1	4.9	6.5	1.1	82	40.0	20.8	48.7	0.000	2.1	7.8
19	29.898	27.3	24.2	3.1	25.9	- 13.6	24.3	19.3	6.6	10.0	3.0	77	30.9	24.1	48.3	0.036	0.0	7.8
20	29.673	25.7	20.4	5.3	23.4	- 15.6	21.8	16.3	7.1	10.7	2.4	73	38.5	15.9	48.1	0.000	2.5	7.8
21	29.518	29.1	22.2	6.9	26.2	- 12.5	25.8	24.0	2.2	4.1	0.4	92	34.1	18.8	47.4	0.102	0.0	7.8
22	29.537	34.0	26.0	8.0	30.6	- 7.8	30.1	29.1	1.5	5.0	0.4	93	39.4	28.1	47.2	0.103	0.0	7.8
23	29.751	32.1	27.1	5.0	29.2	- 9.0	28.5	26.8	2.4	3.7	0.3	90	33.0	27.0	46.8	0.169	0.0	7.8
24	30.017	33.8	30.3	3.5	32.3	- 5.9	31.1	28.7	3.6	5.6	1.2	87	41.0	29.0	46.4	0.019	0.0	7.8
25	30.271	32.8	28.4	4.4	31.2	- 7.2	30.1	28.0	3.2	4.9	0.2	87	36.0	28.2	46.2	0.007	0.0	7.8
26	30.123	38.7	28.0	10.7	32.3	- 6.3	31.8	31.1	1.2	2.3	0.0	95	35.2	29.0	45.7	0.305	0.0	7.8
27	29.838	43.3	38.7	4.6	41.0	+ 2.2	39.6	37.7	3.3	5.7	0.0	87	48.0	33.2	45.8	0.000	3.4	7.8
28	29.873	42.3	38.0	4.3	40.1	+ 1.2	37.8	34.2	5.9	9.0	2.5	79	52.0	31.9	45.5	0.000	0.5	7.9
29	29.680	47.2	39.5	7.7	42.9	+ 3.9	42.2	41.3	1.6	3.6	0.6	94	51.6	35.7	45.4	0.228	0.0	7.9
30	29.452	43.1	34.6	8.5	39.7	+ 0.8	37.7	34.7	5.0	8.2	2.4	82	51.8	29.2	45.4	0.000	3.6	7.9
31	29.504	40.7	34.0	6.7	37.1	- 1.6	35.6	33.3	3.8	8.2	1.5	86	51.4	28.8	45.1	0.014	3.0	7.9
Means	29.679	43.9	35.0	8.8	39.9	- 0.0	38.4	36.0	3.9	7.2	1.2	86.0	51.5	30.1	48.0	Sum 2.372	1.4	7.9
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

The results apply to the civil day, except Columns 19 to 22 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

The mean reading of the Barometer (Column 1) and the mean temperatures of the Air and Evaporation (Columns 5 and 7) are deduced from the autographic records. The average temperature (Column 6) is deduced from the 65 years' observations, 1841-1905. The temperature of the Dew Point (Column 8) and the Degree of Humidity (Column 12) are deduced from the corresponding temperatures of the Air and Evaporation by means of Hygrometrical Tables, published by the Meteorological Office, Air Ministry. The mean difference between the Air and Dew Point Temperatures (Column 9) is the difference between the numbers in Columns 5 and 8, and the Greatest and Least Differences (Columns 10 and 11) are deduced from the 24 hourly autographic measures of the Dry-bulb and Wet-bulb Thermometers. The readings in Column 15 are taken daily at noon.

The values given in Columns 2, 3, 4, 13 and 14 are derived from eye-readings of self-registering thermometers.

\* Rainfall (Column 16). The amount entered on December 13 is derived from wet fog.

The mean reading of the Barometer for the month was 29.679 in., being 0.113 in. lower than the average for the 65 years, 1841-1905.

TEMPERATURE OF THE AIR.

The highest in the month was 55°·2 on December 12; the lowest in the month was 20°·4 on December 20; and the range was 34°·8.

The mean of all the highest daily readings in the month was 43°·9, being 0°·3 lower than the average for the 65 years, 1841-1905. †

The mean of all the lowest daily readings in the month was 35°·0, being 0°·5 lower than the average for the 65 years, 1841-1905. †

The mean of the daily ranges was 8°·8, being 0°·1 greater than the average for the 65 years, 1841-1905. †

The mean for the month was 39°·9, being equal to the average for the 65 years, 1841-1905.

† The average has been corrected for the presumed effect of the change of thermometer screen on 1938 January 1. (See Introduction p. xix).

MONTH and DAY 1938	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER			
	POLARIS		δ URSAE MINORIS		OSLER'S			Robinson's					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot						
					A.M.	P.M.	Greatest	Mean of 24 Hourly Measures	Horizontal Movement of the Air	0 <sup>h</sup> to 6 <sup>h</sup>	6 <sup>h</sup> to 12 <sup>h</sup>	12 <sup>h</sup> to 18 <sup>h</sup>	18 <sup>h</sup> to 24 <sup>h</sup>
Dec. 1	7.3	0.54	7.1	0.53	SW:WSW	SW:WSW	9.4	0.48	465	b c r	r c b Ci	b c p b	b c p b
2	5.7	0.42	5.5	0.41	WSW:SW	SW:WSW	1.8	0.14	331	b	b Acu	b c r	r r c
3	12.9	0.94	0.7	0.05	WSW:W	NW:W:WSW	2.3	0.12	322	c b m <sub>o</sub>	b Cu m <sub>o</sub>	b Ast m	b f m x
4	0.0	0.00	0.0	0.00	Calm:SSE	S:SSW	2.6	0.11	274	b m x	b c Stcu m	c	c
5	12.8	0.93	11.1	0.81	SW:W	WNW:WSW	4.7	0.37	428	c i r	c i r c	c Ast b	b
6	9.8	0.71	7.3	0.53	WSW	WSW:SW	1.3	0.10	339	b	bc Ci Acu m <sub>o</sub>	bc c Acu	bc b w
7	0.0	0.00	0.0	0.00	SW	SSW:SE	1.5	0.12	305	bc lu-ha c	d c Cist so-ha	c so-ha p	c
8	11.6	0.84	10.7	0.78	SE:SSW	SSW:SW	2.6	0.11	312	c i d	c i d d <sub>o</sub>	c Nbst	c b
9	0.0	0.00	0.0	0.00	SW:SSW	SSW	6.0	0.55	375	b x	b Frcn m <sub>o</sub>	b c so-ha r	r r d
10	1.5	0.11	0.9	0.06	SSW	SSE:S	1.8	0.20	313	c r c	c so-ha c Frst	c r c	c
11	0.0	0.00	0.0	0.00	SE:S	SE:SSE	1.6	0.12	267	c lu-ha c r	c Ast Ci	c	c
12	7.1	0.52	7.1	0.52	SSE:SSW	SSW:SSE	1.6	0.10	274	c r	r c Acu	c b c Frcu Cist	c b c
13	3.6	0.26	2.5	0.19	Calm:SSW	SSW:S	0.8	0.07	234	c Fe m	c m c Stcu	c Ast Fst	c b t
14	2.5	0.18	0.0	0.00	S:SSW	SW:Calm	1.5	0.05	225	c r r	r r d c	c m f	c f Fe
15	1.6	0.12	0.9	0.06	Calm	SSW:S	0.6	0.06	191	Fe Fe	Fe Fe r b m <sub>o</sub>	c Stcu m <sub>o</sub>	c
16	0.0	0.00	0.0	0.00	S:SSE	SSE:SE	0.7	0.06	246	c r	r r	r r	d d
17	14.0	1.00	14.0	1.00	ESE	ESE	1.2	0.14	298	d d c	c Stcu	c b	b x
18	0.0	0.00	0.0	0.00	ESE	ESE:E	6.7	1.05	477	b x	b x c Frcu	c	c
19	0.3	0.02	0.2	0.01	E	ENE:NE	4.8	0.93	509	c	c s <sub>o</sub> s	s <sub>o</sub> s	c i s <sub>o</sub>
20	6.8	0.49	6.7	0.48	NE	NE:N	2.4	0.26	412	c	i s <sub>o</sub> c b	b c Stcu b	b c
21	0.0	0.00	0.0	0.00	N:NNE	NNE:NE	0.9	0.14	306	c	c Nbst s <sub>o</sub>	c s <sub>o</sub>	s <sub>o</sub> c s <sub>o</sub>
22	0.0	0.00	0.0	0.00	NNE:Calm	N:NNE	1.2	0.06	241	c s <sub>o</sub>	c s <sub>o</sub> c f g	c g f m	c r s s <sub>o</sub>
23	0.0	0.00	0.0	0.00	NNE:ENE:Calm	Calm:NNE	0.3	0.03	232	c r <sub>o</sub>	s s m	s <sub>o</sub> c m	c m
24	0.0	0.00	0.0	0.00	NNE	NNE	1.3	0.17	379	c m <sub>o</sub>	c s <sub>o</sub> m <sub>o</sub>	s s <sub>o</sub> m <sub>o</sub>	c m <sub>o</sub>
25	0.0	0.00	0.0	0.00	NE:ENE	Calm	0.7	0.06	235	c	c s <sub>o</sub> m <sub>o</sub>	c m <sub>o</sub>	c m <sub>o</sub>
26	0.0	0.00	0.0	0.00	Calm:SSW	SSW	0.6	0.03	258	c f	c Ss m f	c s <sub>o</sub> m	c r <sub>o</sub> m
27	7.0	0.50	4.7	0.33	WSW:NW	NW:W	0.8	0.09	322	c	c b m	b c m	c b
28	0.0	0.00	0.0	0.00	NNW	NNW:WSW	1.2	0.08	271	b c	c Acu m	c Acu m f	c f d <sub>o</sub>
29	7.5	0.54	0.0	0.00	Calm:SSW	SW:NW	1.5	0.05	257	o f	o d <sub>o</sub> c f	c f r r m	r r c b
30	12.3	0.88	0.0	0.00	WSW	WNW:WSW	1.7	0.16	362	b x m	b m b Frcu	b c Stcu	c b
31	0.0	0.00	0.0	0.00	WSW	NW:SSW	0.9	0.05	280	b x	c p <sub>o</sub> b m	b c Stcu m	c r <sub>o</sub> d m
Means	4.0	0.29	2.6	0.19	...	...	...	0.20	314				
Number of Column for Reference	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean Temperature of Evaporation for the month was 38°·4, being 0°·1 lower than

The mean Temperature of the Dew Point for the month was 36°·0, being 0°·4 lower than

the average for the 65 years, 1841-1905.

The mean Degree of Humidity for the month was 86·0, being 1·5 less than

The mean Elastic Force of Vapour for the month was 0·212 in., being 0·004 in. less than

The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·5.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·173. The maximum daily amount of Sunshine was 5·2 hours on December 2.

The highest reading of the Solar Radiation Thermometer was 71°·0 on December 12; and the lowest reading of the Terrestrial Radiation Thermometer was 15°·9 on December 20.

The Proportions of Wind referred to the cardinal points were N. 15, E. 17, S. 34, W. 25, calm or nearly calm conditions, 9; the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 9·4 lbs. on the square foot on December 1. The mean daily Horizontal Movement of the Air for the month was 314 miles; the greatest daily value was 509 miles on December 19, and the least daily value was 191 miles on December 15.

Rain (0·005 in. or over) fell on 22 days in the month, amounting to 2·372 in., as measured by gauge No. 6 partly sunk below the ground; being 0·545 in. greater than the average fall for the 65 years, 1841-1905.

HIGHEST AND LOWEST READINGS OF THE BAROMETER, REDUCED TO 32° FAHRENHEIT, AS EXTRACTED FROM THE PHOTOGRAPHIC RECORDS.

MAXIMA		MINIMA		MAXIMA		MINIMA		MAXIMA		MINIMA	
U.T., 1938	Reading	U.T., 1938	Reading	U.T., 1938	Reading	U.T., 1938	Reading	U.T., 1938	Reading	U.T., 1938	Reading
January		January		May		May		September		September	
d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. m. m.	in.	d. h. m.	in.
3. 10. 55	30.341	1. 6. 55	30.155	5. 23. 00	29.934	2. 4. 55	29.732	3. 8. 00	30.029	7. 13. 30	29.618
5. 9. 50	30.182	4. 16. 00	30.038	8. 8. 10	30.063	7. 3. 20	29.815	11. 9. 05	30.108	14. 17. 20	29.728
9. 15. 15	28.790	9. 6. 40	28.620	11. 9. 45	30.112	9. 17. 40	29.819	16. 1. 50	30.091	20. 12. 45	29.460
11. 23. 00	29.482	10. 4. 45	28.592	16. 22. 10	29.791	14. 18. 10	29.539	22. 9. 00	29.806	25. 3. 10	29.656
12. 19. 36	29.678	12. 6. 40	29.338	22. 8. 30	30.141	18. 12. 55	29.568	27. 10. 35	29.844	29. 3. 10	29.608
14. 7. 50	29.849	13. 5. 05	29.494	23. 21. 15	29.889	23. 15. 45	29.799	October		October	
16. 2. 20	29.661	15. 9. 45	29.011	29. 15. 15	29.574	28. 3. 30	29.316	1. 19. 20	29.824	2. 12. 35	29.408
18. 2. 25	29.956	16. 21. 05	29.286	31. 6. 55	29.775	29. 21. 55	29.276	3. 9. 10	29.585	3. 22. 40	28.878
23. 10. 50	30.361	19. 1. 00	29.426	June		June		4. 23. 00	29.442	5. 14. 50	29.277
24. 18. 50	30.342	24. 3. 20	30.261	3. 22. 00	29.911	2. 2. 00	29.270	6. 20. 30	29.780	7. 12. 50	29.325
25. 21. 25	30.089	25. 13. 55	29.890	6. 10. 00	29.862	5. 2. 50	29.548	8. 12. 50	29.841	9. 9. 20	29.381
27. 22. 05	29.825	27. 2. 00	29.501	11. 8. 00	30.049	7. 3. 25	29.789	12. 7. 00	30.046	13. 16. 15	29.741
29. 18. 45	29.428	29. 2. 57	29.004	13. 8. 25	30.157	12. 3. 15	29.970	14. 21. 40	30.074	18. 6. 20	29.534
30. 22. 50	29.722	30. 4. 10	28.929	16. 8. 5	30.188	14. 18. 25	30.019	20. 10. 10	30.175	22. 16. 20	29.645
February		February		20. 11. 10	30.114	18. 25. 10	29.775	24. 9. 00	29.956	27. 4. 50	29.442
4. 11. 35	30.286	26. 22. 55	29.741	26. 9. 30	29.827	25. 13. 25	29.636	28. 20. 00	29.827	30. 8. 20	29.570
7. 1. 00	30.301	March		28. 9. 20	29.604	27. 18. 00	29.464	31. 10. 40	29.837	November	
11. 12. 05	30.386	1. 3. 45	29.853	July		29. 0. 25	29.187	November		1. 8. 50	29.390
14. 23. 30	30.135	9. 15. 40	29.938	3. 10. 30	29.866	3. 15. 45	29.819	6. 10. 50	30.109	4. 4. 50	29.661
18. 1. 30	30.279	16. 15. 20	29.913	6. 20. 30	29.800	15. 10. 15	30.254	15. 10. 15	30.254	11. 14. 35	29.540
20. 10. 00	30.398	21. 6. 45	29.609	9. 23. 10	29.975	18. 0. 20	30.077	18. 0. 20	30.077	17. 2. 55	29.999
27. 16. 55	30.181	25. 13. 40	29.618	13. 22. 10	29.907	19. 11. 20	29.770	19. 11. 20	29.770	19. 1. 10	29.533
March		27. 4. 20	29.702	17. 23. 40	30.054	21. 2. 25	29.201	21. 2. 25	29.201	20. 20. 05	29.109
4. 23. 30	30.540	April		27. 7. 45	29.874	22. 16. 45	29.312	22. 16. 45	29.312	22. 1. 10	28.965
12. 12. 15	30.431	3. 1. 30	29.645	August		25. 2. 10	29.671	25. 2. 10	29.671	23. 9. 5	28.795
18. 9. 35	30.141	5. 17. 00	30.020	1. 22. 45	30.110	27. 10. 00	29.815	27. 10. 00	29.815	26. 3. 20	29.076
23. 23. 10	29.986	16. 17. 00	30.057	9. 22. 10	29.800	29. 19. 00	29.677	29. 19. 00	29.677	28. 3. 25	29.392
26. 14. 50	29.861	19. 16. 00	30.101	15. 8. 5	29.837	30. 23. 55	29.313	30. 23. 55	29.313	30. 12. 25	29.187
April		27. 17. 00	29.877	17. 20. 25	29.824	December		December		1. 6. 03	29.139
1. 10. 10	30.202	30. 3. 50	29.741	23. 21. 25	30.015	4. 6. 45	29.963	4. 6. 45	29.963	5. 6. 50	29.460
4. 7. 00	30.277	August		26. 21. 30	29.992	6. 9. 50	29.831	6. 9. 50	29.831	8. 14. 00	29.197
11. 9. 00	30.589	1. 22. 45	30.110	August		9. 8. 20	29.401	9. 8. 20	29.401	10. 3. 30	29.071
17. 23. 10	30.311	9. 22. 10	29.800	8. 5. 00	29.712	14. 23. 40	29.913	14. 23. 40	29.913	16. 4. 00	29.689
20. 23. 50	30.242	13. 17. 50	29.701	13. 17. 50	29.701	17. 17. 40	30.128	17. 17. 40	30.128	21. 14. 10	29.475
24. 21. 10	30.032	15. 8. 5	29.837	15. 8. 5	29.837	25. 20. 00	30.330	25. 20. 00	30.330	28. 0. 00	29.811
28. 23. 00	30.003	17. 20. 25	29.824	17. 20. 25	29.824	28. 9. 40	29.924	28. 9. 40	29.924	30. 12. 55	29.399
30. 9. 20	29.828	23. 21. 25	30.015	23. 21. 25	30.015	31. 16. 35	29.555	31. 16. 35	29.555		

The readings in the above table are accurate, but the times are occasionally liable to uncertainty, as the barometer will sometimes remain at its extreme reading without sensible change for a considerable interval of time. In such cases the time given is the middle of the stationary period.

The time is Universal Time.

The height of the barometer cistern above mean sea level is 152 feet; no correction has been applied to the readings to reduce to sea level.

HIGHEST AND LOWEST READINGS OF THE BAROMETER IN EACH MONTH FOR THE YEAR 1938 .

	January	February	March	April	May	June	July	August	September	October	November	December
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Highest . . . . .	30.361	30.398	30.540	30.589	30.141	30.188	30.054	30.110	30.108	30.175	30.254	30.330
Lowest . . . . .	28.592	29.741	29.609	29.645	29.276	29.187	29.369	29.338	29.460	28.878	28.795	29.071
Range . . . . .	1.769	0.657	0.931	0.944	0.865	1.001	0.685	0.772	0.648	1.297	1.459	1.259

The highest reading in the year was 30.589 in. on April 11. The lowest reading in the year was 28.592 in. on January 10. The range of reading in the year was 1.997 in.

MONTHLY RESULTS OF METEOROLOGICAL ELEMENTS FOR THE YEAR 1938.

MONTH 1938	Mean Reading of the Barometer	Temperature of the Air								Mean Temperature of Evaporation	Mean Temperature of the Dew Point	Mean Degree of Humidity (Saturation -100)
		Highest	Lowest	Range in the Month	Mean of all the Highest	Mean of all the Lowest	Mean of the Daily Range	Monthly Mean	Excess of Mean above the Average of 65 years			
	in.	°	°	°	°	°	°	°	°	°	°	°
January ..	29.705	54.8	32.0	22.8	48.2	38.4	9.8	43.6	+ 5.0	41.5	38.5	82.3
February .	30.081	56.4	30.5	25.9	46.0	38.4	9.5	40.8	+ 1.3	38.3	34.5	78.3
March . . .	30.082	66.6	31.7	34.9	59.4	40.0	19.4	49.0	+ 7.1	45.1	40.1	71.8
April . . .	30.113	65.6	28.9	36.7	54.4	38.2	16.2	46.3	- 1.0	41.9	35.6	66.4
May . . . .	29.784	76.1	32.1	44.0	59.8	43.4	16.4	51.8	- 1.3	47.4	42.2	70.4
June . . . .	29.857	80.9	44.6	36.3	70.5	51.8	18.7	61.0	+ 1.6	54.6	48.7	64.3
July . . . .	29.782	82.9	45.7	37.2	70.5	53.5	17.1	61.4	- 1.2	56.3	51.9	71.2
August ..	29.804	84.0	42.3	41.7	72.6	54.7	17.9	62.6	+ 0.9	57.9	54.1	74.3
September	29.833	79.7	40.0	39.7	67.5	50.6	16.9	58.5	+ 1.3	55.0	51.7	78.3
October ..	29.718	64.7	31.0	33.7	57.8	43.9	13.8	50.8	+ 0.8	48.1	45.1	81.1
November	29.676	68.1	30.1	38.0	54.7	44.2	10.5	49.8	+ 6.3	47.7	45.2	84.5
December	29.679	55.2	20.4	34.8	43.9	35.0	8.8	39.9	0.0	38.4	36.0	86.0
Means . . .	29.843	84.0	30.4	63.6	58.8	44.2	14.6	51.3	+ 1.7	47.7	43.6	75.7

MONTH 1938	Mean Elastic Force of Vapour	Mean Tempera- ture of the Earth 4 feet below the surface of the soil	Mean Amount of Cloud (0-10)	RAIN		WIND										Mean Daily Pressure on the Square Foot	From Robin- son's Anemo- meter  Mean Daily Horizontal Movement of the Air
				Number of Rainy Days (0.005 in. or over)	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground	From Osler's Anemometer								Number of Calm or nearly Calm Hours			
						Number of Hours of Prevalence of each Wind referred to different Points of Azimuth											
						N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
	in.	°			in.										lbs.	miles	
January ..	0.234	45.0	7.8	24	2.436	61	22	6	1	64	337	143	53	57	0.69	356	
February .	0.200	44.1	7.4	11	0.617	86	145	80	18	60	154	47	33	69	0.48	343	
March . . .	0.249	45.0	4.8	5	0.333	10	21	38	13	35	288	140	64	135	0.19	285	
April . . .	0.208	47.8	6.5	3	0.104	229	206	40	7	2	49	53	75	59	0.21	283	
May . . . .	0.270	49.6	7.2	15	1.660	74	145	51	18	104	181	77	25	69	0.28	299	
June . . . .	0.345	54.1	7.0	6	0.414	44	21	12	15	59	298	159	62	50	0.41	316	
July . . . .	0.389	57.3	7.8	13	1.317	22	11	23	23	93	346	106	39	81	0.15	269	
August ...	0.422	59.9	7.5	12	2.192	82	72	43	35	29	165	45	46	225	0.13	236	
September	0.386	58.5	6.8	18	2.906	101	50	1	34	150	154	55	50	125	0.08	241	
October ..	0.302	55.8	6.2	14	2.074	53	4	27	36	73	331	98	16	106	0.36	310	
November	0.303	52.5	7.5	17	3.089	0	2	19	32	125	368	99	5	70	0.32	318	
December	0.212	48.0	7.5	22	2.372	50	79	46	73	138	172	81	35	70	0.20	314	
Sums . . . .	..	..	..	160	19.514	814	778	366	305	932	2843	1103	503	1116	..	..	
Means . . .	0.293	51.5	7.0	..	..	..	..	..	..	..	..	..	..	..	0.28	298	

The greatest recorded pressure of the wind on the square foot in the year was 33.2 lbs. on November 23.  
 The greatest recorded daily horizontal movement of the air in the year was 656 miles on January 15.  
 The least recorded daily horizontal movement of the air in the year was 131 miles on March 23.

MONTHLY MEAN READING OF THE BAROMETER AT EVERY HOUR OF THE DAY,  
AS DEDUCED FROM THE PHOTOGRAPHIC RECORDS.

Hour Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
0 <sup>h</sup>	29.730	30.075	30.088	30.126	29.798	29.858	29.785	29.814	29.841	29.724	29.694	29.676	29.851
1	29.717	30.078	30.087	30.121	29.795	29.854	29.781	29.811	29.838	29.720	29.685	29.672	29.847
2	29.706	30.078	30.083	30.116	29.789	29.850	29.777	29.807	29.834	29.714	29.681	29.672	29.842
3	29.694	30.074	30.076	30.112	29.786	29.847	29.774	29.803	29.828	29.708	29.673	29.670	29.837
4	29.683	30.071	30.074	30.109	29.783	29.849	29.774	29.800	29.824	29.705	29.667	29.665	29.834
5	29.677	30.073	30.076	30.110	29.786	29.854	29.777	29.802	29.825	29.706	29.666	29.659	29.834
6	29.679	30.077	30.079	30.119	29.790	29.860	29.782	29.808	29.830	29.707	29.663	29.661	29.838
7	29.684	30.080	30.088	30.126	29.792	29.866	29.785	29.812	29.836	29.712	29.667	29.669	29.843
8	29.695	30.087	30.095	30.130	29.793	29.872	29.788	29.816	29.841	29.719	29.673	29.677	29.849
9	29.705	30.091	30.101	30.134	29.793	29.873	29.788	29.817	29.845	29.725	29.676	29.691	29.853
10	29.711	30.092	30.100	30.129	29.789	29.872	29.786	29.815	29.843	29.726	29.682	29.699	29.854
11	29.711	30.091	30.096	30.122	29.786	29.871	29.784	29.810	29.839	29.725	29.681	29.695	29.851
12	29.704	30.084	30.088	30.115	29.783	29.866	29.782	29.805	29.835	29.719	29.672	29.687	29.845
13	29.700	30.077	30.079	30.110	29.780	29.863	29.780	29.799	29.830	29.715	29.669	29.682	29.840
14	29.699	30.068	30.069	30.102	29.775	29.859	29.777	29.794	29.823	29.714	29.665	29.678	29.835
15	29.704	30.066	30.061	30.092	29.770	29.851	29.774	29.791	29.819	29.712	29.665	29.680	29.832
16	29.709	30.067	30.059	30.090	29.767	29.846	29.770	29.785	29.817	29.711	29.670	29.681	29.831
17	29.715	30.071	30.061	30.090	29.765	29.843	29.769	29.785	29.819	29.716	29.677	29.680	29.833
18	29.717	30.079	30.068	30.095	29.767	29.842	29.772	29.787	29.824	29.724	29.681	29.682	29.837
19	29.721	30.086	30.077	30.102	29.775	29.845	29.777	29.796	29.833	29.730	29.685	29.684	29.843
20	29.720	30.089	30.085	30.112	29.783	29.849	29.785	29.805	29.838	29.730	29.685	29.684	29.847
21	29.717	30.094	30.094	30.119	29.790	29.860	29.795	29.810	29.842	29.730	29.686	29.683	29.852
22	29.713	30.096	30.097	30.120	29.791	29.864	29.799	29.807	29.843	29.728	29.686	29.684	29.852
23	29.706	30.097	30.098	30.118	29.792	29.864	29.800	29.810	29.841	29.724	29.685	29.684	29.852
24	29.698	30.099	30.097	30.113	29.792	29.859	29.798	29.808	29.839	29.718	29.683	29.681	29.849
Means 0 <sup>h</sup> -23 <sup>h</sup>	29.705	30.081	30.082	30.113	29.784	29.857	29.782	29.804	29.833	29.718	29.676	29.679	29.843
Means 1 <sup>h</sup> -24 <sup>h</sup>	29.704	30.082	30.083	30.113	29.784	29.857	29.782	29.803	29.833	29.718	29.676	29.679	29.843
No. of Days Employed.	31	28	31	30	31	30	31	31	30	31	30	31	

MONTHLY MEAN TEMPERATURE OF THE AIR AT EVERY HOUR OF THE DAY,  
AS DEDUCED FROM THE AUTOGRAPHIC RECORDS.

Hour Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means
	°	°	°	°	°	°	°	°	°	°	°	°	°
0 <sup>h</sup>	42.5	39.4	44.8	42.1	47.1	55.8	56.6	58.2	54.5	48.3	48.7	39.1	48.1
1	42.3	39.2	44.2	41.2	46.4	54.7	55.9	57.4	53.8	47.7	48.5	38.8	47.5
2	42.1	38.9	43.8	40.6	45.7	54.0	55.2	56.6	53.3	47.3	48.1	38.5	47.0
3	42.1	38.7	43.4	40.0	45.2	53.2	54.7	56.2	52.8	47.0	48.0	38.2	46.6
4	41.9	38.5	43.0	39.5	44.7	52.8	54.3	55.8	52.7	46.5	47.9	38.4	46.3
5	41.9	38.6	42.3	39.7	45.0	53.4	54.6	55.8	52.7	47.1	47.5	38.6	46.4
6	42.0	38.7	42.4	40.3	46.7	55.2	55.8	56.6	53.0	47.3	47.8	38.8	47.1
7	42.2	38.8	43.0	42.0	49.4	57.6	58.0	58.4	54.1	47.7	47.9	38.8	48.2
8	42.4	39.1	44.6	44.6	52.1	60.1	60.6	60.5	56.7	49.0	48.4	39.0	49.8
9	42.7	39.9	47.2	47.0	54.4	62.6	62.7	63.1	59.6	51.2	49.7	39.4	51.6
10	43.6	41.3	50.0	49.3	55.7	64.3	64.5	65.3	61.7	52.8	50.7	40.0	53.3
11	44.9	42.8	52.7	50.8	56.7	66.2	65.7	67.1	63.1	54.4	51.9	41.0	54.8
12	45.7	44.0	55.6	51.8	57.5	67.5	67.0	68.9	64.3	56.1	53.1	41.9	56.1
13	46.3	44.7	57.2	52.6	57.7	68.0	67.5	70.1	65.4	56.4	53.5	42.4	56.8
14	46.3	44.5	58.0	53.2	57.8	68.4	68.3	70.6	65.9	56.4	53.4	42.2	57.1
15	45.8	44.2	58.4	53.4	57.8	68.6	68.4	70.3	65.8	55.9	52.8	41.7	56.9
16	45.4	43.3	57.4	52.9	57.6	68.0	68.5	69.5	64.8	54.9	51.6	41.2	56.3
17	44.9	42.5	56.0	51.9	56.7	68.9	67.5	68.5	63.5	53.5	50.6	40.6	55.3
18	44.4	41.7	53.3	50.2	55.4	65.7	65.8	66.5	61.2	52.1	49.9	40.2	53.9
19	44.0	41.1	50.9	48.4	53.6	63.9	64.1	64.3	59.3	50.9	49.5	40.0	52.5
20	43.7	40.6	49.2	46.9	51.9	62.1	62.2	62.5	58.2	50.1	49.3	39.8	51.4
21	43.4	40.2	47.6	45.3	50.3	59.6	60.1	61.2	57.1	49.5	49.0	39.7	50.3
22	43.3	39.9	46.4	44.2	49.3	58.3	58.8	60.0	56.1	49.0	48.8	39.4	49.5
23	43.3	39.7	45.4	43.0	48.3	57.0	58.0	58.9	55.3	48.7	48.5	39.1	48.8
24	42.8	39.5	44.7	42.0	47.4	55.7	57.2	57.6	54.6	48.3	48.4	38.9	48.1
Means 0 <sup>h</sup> -23 <sup>h</sup>	43.6	40.8	49.0	46.3	51.8	61.0	61.4	62.6	58.5	50.8	49.8	39.9	51.3
Means 1 <sup>h</sup> -24 <sup>h</sup>	43.6	40.9	49.0	46.3	51.8	61.0	61.5	62.6	58.5	50.8	49.8	39.9	51.3
No. of Days Employed	31	28	31	30	31	30	31	31	30	31	30	31	



MONTHLY MEAN TEMPERATURE OF EVAPORATION, AT EVERY HOUR OF THE DAY,  
AS DEDUCED FROM THE AUTOGRAPHIC RECORDS.

Hour Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means
0 <sup>h</sup>	40.9	37.6	43.0	39.7	44.7	52.4	54.3	56.1	53.1	46.7	47.3	37.9	46.1
1	40.7	37.4	42.6	39.2	44.2	51.8	53.9	55.5	52.6	46.3	47.1	37.6	45.7
2	40.7	37.3	42.3	38.7	43.7	51.2	53.3	55.0	52.3	45.9	46.8	37.4	45.4
3	40.6	37.1	41.9	38.3	43.4	50.8	53.0	54.8	52.0	45.7	46.8	37.3	45.1
4	40.5	37.0	41.6	37.8	43.0	50.7	52.7	54.6	52.0	45.5	46.8	37.3	45.0
5	40.4	37.0	41.1	37.9	43.2	50.9	52.7	54.3	51.6	45.8	46.5	37.5	44.9
6	40.4	37.0	40.7	38.2	44.5	51.9	53.5	54.8	51.6	45.9	46.6	37.7	45.2
7	40.5	37.0	41.0	39.6	46.4	53.2	54.7	56.0	52.5	46.2	46.7	37.7	46.0
8	40.6	37.1	42.3	41.0	47.9	54.5	56.0	57.4	54.4	47.1	47.0	37.8	46.9
9	40.8	37.9	44.0	42.4	48.8	55.4	56.7	58.7	56.1	48.6	47.9	38.1	48.0
10	41.4	38.8	45.9	43.8	49.4	56.1	57.6	59.5	56.8	49.7	48.5	38.5	48.8
11	42.4	39.5	47.3	44.5	50.0	57.0	57.9	60.0	57.4	50.6	49.0	39.1	49.6
12	42.9	40.1	48.8	45.2	50.5	57.4	58.6	60.8	57.8	51.2	49.4	39.8	50.2
13	43.2	40.4	49.7	45.5	50.7	57.6	58.8	61.2	58.1	51.3	49.4	40.0	50.5
14	43.1	40.3	50.1	45.6	50.6	57.8	59.3	61.3	58.4	51.2	49.3	39.7	50.6
15	42.8	40.1	50.2	45.7	50.6	57.9	59.4	61.2	58.1	50.7	49.0	39.4	50.4
16	42.6	39.6	49.7	45.4	50.5	57.5	59.4	61.0	57.7	50.1	48.4	39.0	50.1
17	42.3	39.3	49.0	44.9	50.1	57.5	59.1	60.2	57.4	49.5	48.0	38.7	49.7
18	41.9	39.0	47.6	44.1	49.7	57.0	58.7	59.5	56.5	48.7	47.5	38.7	49.1
19	41.8	38.5	46.4	43.1	48.8	56.2	57.9	58.6	55.8	48.2	47.3	38.6	48.4
20	41.6	38.3	45.5	42.4	48.2	55.4	57.1	58.0	55.3	47.8	47.2	38.5	47.9
21	41.5	38.1	44.7	41.6	47.3	54.4	56.2	57.5	54.8	47.6	47.3	38.5	47.5
22	41.4	38.0	43.9	40.9	46.6	53.7	55.5	57.0	54.2	47.2	47.1	38.2	47.0
23	41.4	37.9	43.3	40.3	45.7	53.1	55.2	56.3	53.7	46.9	46.9	38.1	46.6
24	41.1	37.8	43.0	39.6	45.0	52.4	54.8	55.5	53.2	46.7	47.1	37.8	46.2
Means 0 <sup>h</sup> -23 <sup>h</sup>	41.5	38.3	45.1	41.9	47.4	54.6	56.3	57.9	55.0	48.1	47.7	38.4	47.7
Means 1 <sup>h</sup> -24 <sup>h</sup>	41.5	38.3	45.1	41.9	47.4	54.6	56.3	57.8	55.0	48.1	47.7	38.4	47.7
No. of Days Employed	31	28	31	30	31	30	31	31	30	31	30	31	

MONTHLY MEAN TEMPERATURE OF THE DEW POINT AT EVERY HOUR OF THE DAY,  
AS DEDUCED FROM THE CORRESPONDING AIR AND EVAPORATION TEMPERATURES.

Hour Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means
0 <sup>h</sup>	38.7	34.9	40.6	36.1	41.9	49.1	52.4	54.3	51.9	44.9	45.7	36.1	43.9
1	38.5	34.7	40.6	36.3	41.5	49.0	52.2	53.9	51.5	44.7	45.5	35.8	43.7
2	38.8	35.0	40.4	36.0	41.2	48.5	51.6	53.7	51.4	44.3	45.3	35.7	43.5
3	38.5	34.7	39.9	35.9	41.1	48.5	51.4	53.6	51.3	44.2	45.4	35.9	43.4
4	38.6	34.8	39.7	35.3	40.8	48.7	51.2	53.6	51.4	44.3	45.5	35.6	43.3
5	38.4	34.6	39.5	35.3	40.8	48.5	50.9	53.0	50.6	44.3	45.3	35.8	43.1
6	38.2	34.4	38.3	35.0	41.9	48.7	51.5	53.3	50.3	44.3	45.2	36.0	43.1
7	38.1	34.3	38.1	36.0	42.8	49.1	51.7	54.0	51.0	44.5	45.3	36.0	43.4
8	38.1	34.0	39.2	35.7	43.2	49.5	52.1	54.9	52.5	45.0	45.5	36.0	43.8
9	38.1	34.9	40.0	36.1	42.5	48.9	51.6	55.3	53.2	45.8	45.9	36.2	44.0
10	38.4	35.0	41.0	36.4	42.4	48.8	51.9	55.0	52.7	46.4	46.1	36.4	44.2
11	39.0	34.6	40.9	36.0	42.7	48.9	51.4	54.6	52.7	46.8	45.9	36.4	44.2
12	39.3	34.2	41.0	36.6	42.9	48.5	51.7	54.7	52.5	46.2	45.5	36.8	44.2
13	39.2	33.9	41.2	36.2	43.1	48.5	51.7	54.5	52.0	46.1	45.1	36.4	44.0
14	39.0	33.9	41.2	35.4	42.8	48.6	52.1	54.3	52.2	45.9	45.0	36.0	43.9
15	38.8	33.8	41.0	35.4	42.8	48.6	52.2	54.3	51.7	45.2	45.0	36.0	43.7
16	38.8	34.0	41.0	35.2	42.8	48.3	52.1	54.6	51.7	45.1	45.0	35.7	43.7
17	38.7	34.5	40.9	35.6	42.9	49.3	52.4	53.8	52.4	45.3	45.2	36.0	43.9
18	38.5	34.8	40.9	35.7	43.5	49.4	52.9	54.0	52.6	45.1	44.9	36.7	44.1
19	38.9	34.4	41.1	35.8	43.5	49.5	52.9	54.1	52.9	45.3	44.9	36.7	44.2
20	38.8	34.8	41.0	36.3	44.1	49.3	52.8	54.5	52.8	45.3	44.9	36.7	44.3
21	38.9	34.9	41.1	36.3	43.9	49.6	52.9	54.5	52.9	45.5	45.4	36.8	44.4
22	38.8	35.2	40.8	36.2	43.5	49.5	52.7	54.5	52.7	45.2	45.2	36.4	44.2
23	38.8	35.3	40.6	36.4	42.7	49.4	52.8	54.2	52.4	44.9	45.1	36.5	44.1
24	38.7	35.3	40.8	36.0	42.2	49.3	52.8	53.9	52.0	44.9	45.7	36.1	44.0
Means 0 <sup>h</sup> -23 <sup>h</sup>	38.7	34.6	40.4	35.9	42.6	48.9	52.0	54.2	52.1	45.2	45.3	36.2	43.8
Means 1-24	38.7	34.6	40.4	35.9	42.6	49.0	52.1	54.2	52.1	45.2	45.3	36.2	43.9

MONTHLY MEAN DEGREE OF HUMIDITY (SATURATION = 100) AT EVERY HOUR OF THE DAY,  
AS DEDUCED FROM THE CORRESPONDING AIR AND EVAPORATION TEMPERATURES.

Hour Universal Time	January	February	March	April	May	June	July	August	September	October	November	December	Yearly Means
0 <sup>h</sup>	86	84	85	79	82	78	85	87	91	88	89	89	85
1	86	84	87	83	83	81	87	88	92	89	89	89	87
2	88	85	87	83	84	81	87	90	93	89	90	90	87
3	87	85	87	85	86	84	89	91	94	90	91	92	88
4	88	86	88	85	86	86	89	92	95	92	91	90	89
5	87	85	90	84	85	83	87	90	92	90	92	90	88
6	86	84	85	81	83	79	85	88	91	89	91	90	86
7	85	83	84	79	78	73	79	85	89	88	91	90	84
8	84	82	81	71	71	68	73	82	85	86	89	89	80
9	84	82	76	65	64	61	67	76	79	82	87	88	76
10	82	78	71	61	61	57	64	70	72	79	84	87	72
11	80	72	64	57	59	54	60	64	69	75	80	83	68
12	78	69	58	56	59	51	58	61	66	70	75	82	65
13	76	66	55	53	59	50	57	58	62	69	73	79	63
14	75	66	53	51	58	49	56	56	61	68	73	79	62
15	77	67	52	50	58	49	56	57	60	68	74	80	62
16	78	69	54	51	58	49	56	59	63	69	78	81	64
17	79	73	57	54	60	53	59	60	67	74	81	83	67
18	80	77	63	58	64	55	63	64	73	77	83	86	70
19	82	78	69	61	69	59	67	70	79	81	84	87	74
20	83	79	73	66	74	63	72	75	83	84	85	88	77
21	84	81	78	71	79	70	77	78	85	86	87	89	80
22	84	83	81	73	80	72	80	82	88	87	87	89	82
23	84	84	83	77	80	76	83	84	90	86	88	91	84
24	85	85	86	79	82	79	85	87	91	86	90	90	86
Means 0 <sup>h</sup> -23 <sup>h</sup>	83	78	73	68	72	66	72	75	80	81	85	87	77
Means 1 <sup>h</sup> -24 <sup>h</sup>	83	79	73	68	72	66	72	75	80	81	85	87	77

TOTAL AMOUNT OF SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN EACH MONTH,  
AS DERIVED FROM THE RECORDS OF THE CAMPBELL-STOKES SELF-REGISTERING INSTRUMENT

Month.	Registered duration of Sunshine in the Hour ending :-																Total Regis- tered Duration of Sunshine in each Month	Corre- sponding aggregate Period during which of the Sun was above the Horizon	Pro- portion of Sun- shine	Mean Altitude of the Sun at Noon.
	5 <sup>h</sup>	6 <sup>h</sup>	7 <sup>h</sup>	8 <sup>h</sup>	9 <sup>h</sup>	10 <sup>h</sup>	11 <sup>h</sup>	Noon	13 <sup>h</sup>	14 <sup>h</sup>	15 <sup>h</sup>	16 <sup>h</sup>	17 <sup>h</sup>	18 <sup>h</sup>	19 <sup>h</sup>	20 <sup>h</sup>				
January ...	-	-	-	-	1.9	5.4	7.5	4.7	5.7	4.6	4.3	0.6	-	-	-	-	34.7	280.7	0.133	18
February ..	-	-	-	0.5	4.2	7.0	10.6	10.1	8.7	6.1	5.6	3.3	0.4	-	-	-	56.5	278.5	0.203	26
March .....	-	-	1.8	12.6	14.0	17.1	18.8	19.5	19.9	20.4	21.1	15.4	8.9	0.7	-	-	170.2	367.5	0.483	37
April .....	-	0.3	4.4	10.5	9.6	13.5	12.9	13.0	11.7	12.5	11.3	11.1	8.8	3.9	-	-	123.5	415.1	0.298	48
May .....	0.7	7.2	11.4	12.1	12.8	12.4	10.5	10.9	10.5	10.1	9.2	10.8	10.8	8.9	6.9	0.8	146.0	483.5	0.302	57
June .....	2.1	9.0	13.6	13.1	15.5	14.7	14.1	14.5	14.1	14.8	12.9	13.2	11.5	12.9	10.5	3.6	190.1	496.2	0.383	62
July .....	2.2	9.3	10.8	13.1	11.5	11.8	12.7	11.9	10.3	10.8	12.0	10.8	9.1	9.6	7.7	0.7	154.1	500.1	0.308	60
August .....	-	1.7	5.2	6.1	9.9	12.1	11.5	14.8	16.9	15.0	15.1	12.3	11.4	9.4	6.4	-	147.6	452.6	0.327	52
September ..	-	-	2.8	9.4	12.3	13.4	13.7	12.5	11.1	12.0	11.1	10.0	9.1	3.3	-	-	120.7	380.5	0.318	41
October ...	-	-	0.1	6.0	11.4	11.7	13.6	16.1	13.1	12.8	11.7	10.8	2.9	-	-	-	110.2	332.2	0.332	30
November* ..	-	-	-	-	2.5	6.0	6.9	7.7	6.9	5.9	6.4	1.8	-	-	-	-	44.1	258.7	0.170	20
December ..	-	-	-	-	0.9	5.9	7.4	11.2	11.0	4.4	1.5	0.2	-	-	-	-	42.5	245.7	0.173	16
For the year	5.0	27.5	50.1	83.4	106.5	131.0	140.2	146.7	139.9	129.4	122.2	100.1	72.9	48.7	31.5	5.1	1340.2	4471.3	0.300	..

The hours are reckoned from "Apparent" midnight.

\* The instrument was out of action on November 14.

READINGS OF THE THERMOMETERS IN THE STEVENSON SCREEN IN THE CHRISTIE ENCLOSURE.

(The readings of the maximum and minimum thermometers apply to the twenty-four hours ending 21<sup>h</sup>.)

Day of the Month	Dry-Bulb Thermometers 4ft above the Ground					Wet-Bulb Thermometers 4ft above the Ground					Day of the Month	Dry-Bulb Thermometers 4ft above the Ground					Wet-Bulb Thermometers 4ft above the Ground				
	Maxi- mum	Mini- mum	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>		Maxi- mum	Mini- mum	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>
January.											March										
d	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°
1	43.2	37.9	40.5	42.5	43.1	41.0	38.9	40.5	40.5	39.0	1	54.1	43.9	48.6	51.8	53.5	43.9	45.3	45.4	45.0	40.2
2	43.8	38.8	40.7	42.6	41.9	39.6	39.7	41.1	40.6	38.7	2	53.2	34.6	39.5	48.6	53.2	44.5	38.8	41.8	44.5	41.8
3	41.1	32.3	33.9	34.9	32.9	33.9	31.8	32.6	31.9	32.2	3	61.2	37.1	41.4	53.6	61.2	46.3	39.9	45.3	48.0	41.6
4	43.0	33.0	37.2	39.5	42.8	40.7	35.9	38.7	41.4	39.0	4	59.4	35.8	41.3	52.5	59.4	46.8	37.8	46.0	51.8	46.0
5	41.5	35.1	36.6	39.3	41.2	40.6	34.8	37.8	39.5	37.8	5	61.8	34.8	38.0	57.2	61.7	46.8	37.8	50.0	51.3	44.3
6	42.2	38.8	40.3	42.0	41.6	40.5	38.5	39.2	38.8	38.3	6	61.1	33.2	43.2	55.0	60.6	44.1	39.3	47.8	48.7	41.5
7	46.1	39.8	40.5	45.4	45.0	41.2	38.6	41.8	41.5	39.0	7	55.9	32.4	35.8	51.2	55.8	41.9	34.9	46.1	49.2	41.3
8	45.9	36.7	37.6	43.8	45.3	44.9	38.8	41.5	42.8	44.1	8	64.4	31.7	36.8	57.2	64.4	47.5	36.0	47.9	52.0	44.5
9	45.4	37.4	41.5	42.3	41.5	37.8	39.2	38.8	37.9	36.2	9	61.1	38.1	45.6	56.9	60.4	49.9	42.7	50.2	52.8	47.6
10	39.6	35.6	37.6	39.6	36.1	37.4	36.0	37.7	35.5	35.8	10	57.8	45.1	50.1	55.6	56.2	54.4	47.9	51.5	51.9	51.6
11	46.8	32.0	37.2	44.1	45.4	46.0	36.5	40.8	44.6	44.8	11	59.5	47.7	51.0	56.7	58.9	47.8	49.2	52.2	53.4	46.4
12	53.9	43.2	51.8	53.9	52.3	44.1	50.0	51.2	49.3	43.6	12	54.3	41.6	45.7	49.5	54.3	41.6	43.3	44.6	47.5	39.5
13	52.9	43.0	52.5	52.7	46.5	43.3	50.2	49.6	45.0	42.4	13	53.8	36.1	40.0	49.5	53.7	41.0	39.5	44.6	47.4	40.3
14	50.4	41.3	46.2	47.9	46.9	50.4	44.6	46.1	44.8	49.1	14	59.7	34.5	45.6	56.5	58.2	44.2	41.0	44.5	45.9	40.5
15	52.8	45.1	48.6	49.1	49.4	45.1	43.8	44.8	42.8	40.1	15	57.7	34.6	43.9	51.1	56.7	45.8	41.8	46.9	49.6	43.4
16	52.5	41.8	47.2	48.4	50.5	52.5	45.4	47.4	49.5	51.0	16	59.5	44.2	49.7	54.7	58.7	51.4	45.9	48.8	51.7	49.6
17	53.6	39.1	41.5	44.6	45.2	39.1	39.0	41.0	40.8	36.7	17	55.5	49.0	51.6	52.3	55.5	49.6	49.3	49.2	50.4	45.1
18	48.0	34.2	38.4	43.7	44.2	48.0	37.4	41.4	40.1	47.0	18	57.4	44.2	51.2	56.1	54.9	48.0	47.9	50.3	48.9	44.9
19	49.1	43.2	43.7	46.5	47.3	44.5	41.8	41.6	41.4	42.7	19	64.0	43.0	52.6	61.7	63.5	47.0	46.9	50.2	48.7	41.5
20	51.8	43.8	47.5	51.3	51.4	48.9	45.7	46.8	47.3	45.2	20	66.4	41.9	57.0	65.3	63.8	52.0	48.6	52.1	50.6	46.3
21	50.2	45.2	48.6	49.7	49.8	46.5	46.6	48.0	49.3	45.5	21	63.2	46.9	56.7	61.9	61.4	50.3	48.6	52.9	53.3	47.8
22	49.0	37.4	38.4	47.3	48.9	48.7	37.7	45.5	46.9	47.8	22	60.9	42.4	47.6	57.4	60.7	43.6	44.6	51.3	53.5	43.5
23	50.8	45.5	48.3	50.8	49.3	45.9	46.5	47.8	45.8	43.8	23	61.1	40.0	42.4	52.2	58.1	44.1	42.1	48.5	52.6	44.1
24	54.8	44.8	50.0	53.6	54.3	44.8	46.9	48.2	48.0	43.3	24	64.6	37.3	51.9	61.7	63.5	52.0	42.5	50.7	51.9	45.5
25	49.1	41.9	46.7	47.7	49.1	41.9	43.5	47.0	45.3	38.5	25	53.2	39.8	52.3	52.7	45.3	39.8	50.8	51.0	44.3	38.1
26	47.6	37.4	41.3	46.0	46.3	38.4	38.9	41.9	41.8	37.6	26	48.5	36.5	42.2	46.7	47.8	44.4	37.5	38.9	40.2	40.4
27	41.3	33.7	35.2	39.4	40.9	36.7	33.7	36.2	36.3	34.2	27	56.0	41.5	49.3	54.0	55.7	53.6	47.8	49.4	50.2	48.7
28	52.5	34.6	45.3	51.1	52.0	52.5	44.3	49.0	49.5	50.0	28	60.9	46.4	52.2	59.4	60.6	54.2	49.0	52.5	52.6	49.6
29	52.8	38.1	41.6	42.4	45.3	40.5	37.3	38.4	38.5	37.1	29	62.9	45.6	53.4	60.6	62.6	52.6	49.7	53.9	55.5	50.2
30	47.2	37.1	39.4	43.1	44.2	39.6	37.4	39.5	39.7	36.9	30	66.6	48.9	55.8	63.3	65.4	54.3	52.1	55.5	58.7	51.4
31	51.6	38.5	49.0	50.9	49.8	51.1	47.3	48.5	48.6	48.8	31	64.9	46.8	51.3	60.2	64.3	53.6	47.1	52.3	54.6	49.1
Means	48.1	38.9	42.7	45.7	45.8	43.4	40.8	42.9	42.8	41.5	Means	59.4	40.5	47.2	55.6	58.4	47.6	44.0	48.8	50.2	44.7
February											April										
d	°	°	°	°	°	°	°	°	°	°	d	°	°	°	°	°	°	°	°	°	°
1	51.4	38.4	40.4	44.6	43.6	39.3	36.8	39.4	38.7	36.8	1	65.6	45.0	49.9	58.3	65.6	50.7	46.9	52.0	55.8	47.4
2	47.2	36.9	39.9	44.3	46.4	43.1	36.8	40.5	43.3	40.6	2	58.9	42.7	49.6	56.7	58.0	51.3	45.5	49.5	50.0	46.8
3	53.3	40.8	45.6	50.6	53.3	47.3	43.8	46.8	45.5	45.9	3	52.6	43.1	45.4	50.3	51.8	44.6	39.1	41.0	41.0	39.1
4	53.9	44.2	47.6	52.4	51.2	47.7	45.3	47.5	44.8	44.9	4	51.9	31.8	43.8	50.6	51.2	42.9	39.1	41.5	41.9	37.6
5	53.1	39.5	43.0	50.3	52.6	40.8	40.8	44.4	45.8	39.8	5	52.6	34.3	46.4	52.4	51.6	51.6	43.4	46.8	48.2	48.2
6	47.4	34.9	37.8	46.1	46.1	44.8	37.1	43.0	43.6	43.6	6	62.9	45.6	53.3	59.0	61.8	52.4	49.3	52.6	53.8	47.4
7	45.3	39.6	41.5	45.3	42.0	40.3	40.6	41.8	40.3	39.7	7	63.2	42.1	54.0	60.1	63.2	49.1	49.6	52.7	52.4	44.4
8	40.8	38.6	39.5	39.7	39.6	40.7	39.1	38.7	38.5	39.3	8	52.2	40.2	46.8	48.1	51.7	42.2	41.6	41.3	42.9	37.4
9	49.6	39.9	40.1	47.5	46.7	49.6	39.1	41.9	44.8	48.2	9	46.0	35.7	42.6	45.0	45.9	42.1	38.0	38.5	39.8	37.0
10	51.8	40.8	49.9	50.4	47.3	42.1	46.6	48.2	41.9	38.1	10	50.9	37.0	43.9	47.9	49.8	38.4	37.0	40.0	41.8	36.1
11	42.8	33.6	35.3	40.6	42.1	36.5	31.5	35.1	35.8	33.0	11	54.6	28.9	43.6	50.9	54.2	39.7	39.0	42.7	44.6	37.9
12	49.6	35.1	47.6	48.2	45.3	41.3	44.8	40.8	39.8	35.2	12	60.9	33.4	44.8	53.0	60.2	44.2	41.0	47.2	49.1	42.6
13	41.3	33.1	35.7	39.8	37.7	34.2	33.8	36.3	35.2	33.0	13	60.0	34.1	48.4	58.2	59.2	48.1	41.4	49.3	50.3	44.6
14	36.3	31.2	33.3	33.3	36.0	32.0	31.6	31.8	32.2	30.4	14	54.0	41.7	49.6	53.5	52.5	47.7	45.6	46.0	45.4	43.0
15	36.1	31.8	34.1	34.2	36.0	32.8	32.1	32.4	32.5	31.6	15	55.0	40.0	46.8	50.9	54.3	44.6	43.6	44.9	46.6	41.2
16	35.8	32.8	35.1	34.7	35.3	35.0	33.0	33.5	33.3	33.0	16	55.2	36.1	49.9	51.4	55.2	44.4	43.5	47.7	49.0	42.7
17	37.1	31.4	36.4	35.5	32.2	31.6	34.6	34.9	32.1	30.6	17	50.3	37.1	45.7	50.3	49.4	38.5	39.9	42.3	41.3	33.8
18	49.5	30.7	37.2	46.3	48.5	37.0	36.1	40.9	39.7	34.2	18	47.2	33.7	42.8	46.3	45.8	41.5	37.2	39.0	39.3	36.9
19	44.1	34.9	36.5	39.9	43.0	36.2	35.3	37.6	40.0	34.6	19	53.9	33.0	47.3	52.0	51.4	44.4	40.9	42.5	42.8	41.9
20	41.5	32.3	35.2	41.0	40.8	40.7	33.8	38.0	38.4	38.4	20	53.5	37.4	45.3	53.0	52.5	45.9	41.9	45.7	44.1	42.8
21	41.0	36.5	38.4	39.4	39.4	36.7	37.1	37.0	36.4	34.1	21	52.1	41.9	47.9	51.3	51.7	44.8	42.7	44.5	45.1	41.4
22	36.7	32.6	34.2	35.4	36.3	32.6	31.9	33.0	33.6	31.5	22	53.4	44.5	50.6	51.9	50.3	44.7	46.1	45.8	44.1	41.6
23	44.2	32.1	36.4	43.2	42.3	38.3	34.9	38.5	38.3	35.7	23	51.9	41.2	46.6	50.2	50.0	46.5	44.0	45.4	45.0	43.4
24	46.8	31.4	33.3	41.9	46.2	31.9	32.6	37.9	41.1	31.3	24	51.3	42.2	46.0	46.9</						

READINGS OF THE THERMOMETERS IN THE STEVENSON SCREEN IN THE CHRISTIE ENCLOSURE - *continued*

(The readings of the maximum and minimum thermometers apply to the twenty-four hours ending 21<sup>h</sup>.)

Day of the Month	Dry-Bulb Thermometers 4ft above the Ground					Wet-Bulb Thermometers 4ft above the Ground					Day of the Month	Dry-Bulb Thermometers 4ft above the Ground					Wet-Bulb Thermometers 4ft above the Ground				
	Maxi- mum	Mini- mum	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>		Maxi- mum	Mini- mum	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>
May											July										
d	o	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o
1	52.1	44.3	47.7	51.6	51.0	45.3	45.3	47.0	46.0	42.7	1	64.1	47.1	60.3	61.6	58.6	53.7	53.9	54.3	53.2	51.2
2	51.0	42.3	45.2	47.7	47.9	46.2	44.1	44.8	45.1	44.4	2	67.7	45.7	61.4	66.5	63.2	55.9	53.6	55.6	56.6	53.0
3	49.5	44.0	45.4	44.8	47.7	49.5	44.3	43.4	43.8	47.0	3	67.5	47.3	62.4	64.1	63.9	57.2	54.6	56.1	55.9	53.2
4	56.6	47.2	52.9	56.6	55.0	47.8	46.7	49.0	47.2	43.4	4	69.1	52.8	60.0	67.1	54.3	54.9	53.8	56.5	53.5	49.5
5	59.5	42.7	54.6	58.6	57.5	46.5	45.3	46.6	45.6	42.7	5	62.8	47.2	55.6	55.3	61.0	55.8	51.7	51.6	54.8	51.7
6	58.5	42.9	47.3	52.4	58.1	43.5	41.5	45.0	48.4	42.1	6	68.0	48.1	60.6	67.8	62.0	55.8	54.6	58.7	55.6	51.5
7	52.7	37.1	49.3	52.6	50.0	42.8	45.6	45.3	43.8	37.1	7	74.9	53.0	68.8	64.4	69.5	62.4	59.8	60.0	61.4	57.3
8	54.7	32.1	47.2	50.3	54.3	42.5	39.8	42.0	45.4	38.6	8	61.8	54.0	56.2	55.5	56.8	55.5	53.9	54.6	54.1	53.8
9	59.4	33.1	51.6	58.6	55.6	51.8	44.2	47.5	45.8	46.1	9	63.6	53.3	56.7	59.2	63.5	56.7	51.4	52.5	55.5	51.9
10	58.2	38.8	55.1	55.8	58.2	50.5	48.3	49.9	52.0	47.8	10	63.5	50.8	57.8	58.5	60.2	61.1	51.8	54.0	56.8	58.9
11	65.5	45.5	57.6	65.2	65.0	49.8	47.6	53.2	52.5	45.4	11	70.6	58.3	62.3	66.9	70.2	61.0	57.8	60.1	61.3	54.5
12	70.9	44.3	64.1	69.1	68.8	55.4	52.9	50.9	56.9	52.9	12	65.3	55.8	59.4	61.6	65.3	58.9	55.4	56.1	57.5	54.8
13	63.3	52.2	58.5	63.0	61.8	54.1	51.7	55.1	54.4	51.1	13	74.4	53.7	64.0	70.6	74.4	60.2	54.3	57.9	59.3	54.8
14	76.1	49.0	68.7	71.1	74.4	59.6	59.4	59.9	60.1	58.5	14	67.9	54.0	59.3	65.4	67.4	60.6	55.3	58.3	58.9	56.8
15	66.9	54.2	62.4	63.4	65.6	56.4	56.4	55.3	55.9	52.8	15	66.1	56.5	65.9	61.9	62.6	56.5	60.3	59.3	59.4	55.4
16	59.2	48.9	55.8	56.3	57.1	51.2	51.8	52.9	52.8	48.7	16	65.6	54.1	61.2	64.6	58.8	57.1	56.2	57.1	54.7	53.5
17	57.5	44.2	53.4	56.1	56.7	53.4	51.8	54.3	54.2	50.7	17	71.9	54.0	61.8	66.8	71.7	62.7	54.5	55.7	58.5	54.6
18	58.2	46.0	56.5	56.5	53.8	46.8	49.5	50.5	49.3	45.8	18	67.7	56.0	60.3	65.1	66.9	62.3	57.7	61.1	61.8	60.4
19	53.7	41.9	47.9	49.3	52.3	47.4	42.5	43.5	44.1	42.9	19	77.4	57.1	67.6	76.4	77.3	62.2	61.4	64.5	65.1	59.0
20	55.4	41.7	49.6	54.2	53.6	47.8	45.1	49.7	48.0	43.4	20	76.6	55.5	57.9	66.6	76.6	67.3	55.8	59.8	64.0	62.3
21	60.3	40.5	50.9	57.2	60.1	50.6	44.5	48.6	50.1	45.3	21	74.9	60.4	65.7	71.3	74.6	61.9	60.0	62.1	62.8	59.9
22	65.8	41.2	53.5	63.4	65.1	52.9	49.5	55.9	57.1	50.9	22	70.8	59.2	62.9	67.0	70.8	59.6	59.7	61.3	63.1	55.5
23	70.3	43.6	67.1	68.3	66.4	53.6	58.2	60.2	57.0	47.7	23	72.6	54.5	64.8	70.6	71.8	61.5	58.1	61.3	61.8	58.0
24	61.9	45.3	53.2	57.5	61.7	54.5	49.3	49.6	52.2	48.4	24	77.9	51.2	67.6	74.8	77.5	62.9	59.6	63.8	64.7	57.9
25	59.3	48.0	51.7	59.2	52.6	48.1	48.2	51.9	50.8	47.3	25	76.5	54.8	66.8	73.1	75.4	62.5	58.7	61.3	63.4	60.5
26	59.7	40.0	56.8	58.3	58.2	50.5	52.7	52.3	51.6	48.0	26	72.5	57.6	63.6	68.2	72.1	60.3	57.3	56.2	57.1	55.3
27	64.7	49.1	62.5	62.6	60.6	52.4	56.8	56.4	54.8	52.4	27	73.4	52.2	66.1	69.4	73.5	60.2	57.9	58.0	57.5	57.5
28	54.1	47.8	51.9	49.7	53.9	48.4	51.4	49.0	49.6	46.9	28	69.8	53.1	61.2	67.4	69.6	58.7	55.4	58.9	57.6	54.6
29	59.3	44.2	56.6	58.4	55.2	51.7	49.3	51.7	49.4	51.3	29	71.4	51.9	64.8	71.0	70.6	61.2	57.1	59.6	59.5	57.9
30	60.2	48.6	54.4	56.0	57.4	53.9	47.9	51.6	50.5	50.3	30	78.7	54.6	68.0	77.9	77.7	64.4	59.8	65.3	65.3	60.5
31	58.6	44.2	56.2	57.5	57.6	55.5	51.8	51.0	55.2	54.9	31	82.9	60.8	71.4	80.0	81.6	71.0	65.6	69.4	69.4	66.2
Means	59.8	44.0	54.4	57.5	57.8	50.3	48.8	50.5	50.6	47.3	Means	70.6	53.7	62.7	67.0	68.4	60.1	56.7	58.6	59.4	56.2
June											August										
d	o	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o
1	64.5	50.6	60.0	62.1	60.6	51.4	55.0	57.3	58.8	47.3	1	83.9	65.0	76.6	82.1	81.4	67.7	68.6	69.3	69.4	63.6
2	57.6	47.0	52.0	53.7	56.8	51.2	46.2	48.0	47.9	46.3	2	81.7	59.7	64.4	74.9	77.2	69.3	61.9	67.0	69.0	63.2
3	64.8	44.6	56.9	62.8	63.1	53.6	50.0	51.8	53.1	49.2	3	79.7	58.0	69.8	78.6	77.3	63.6	62.4	66.7	66.1	56.2
4	69.2	50.0	62.8	68.5	67.5	59.6	54.3	56.0	55.3	54.5	4	81.1	55.5	66.8	77.6	78.7	68.2	59.4	64.9	67.0	63.0
5	66.7	53.3	59.4	65.6	66.0	53.3	52.0	53.6	53.6	48.1	5	80.6	57.1	64.8	73.1	80.2	67.3	61.6	64.9	67.6	64.6
6	66.6	47.1	58.5	66.4	65.7	61.5	54.2	57.5	57.8	56.5	6	84.0	60.9	72.4	76.9	83.6	67.0	65.8	65.1	66.3	64.5
7	72.2	55.6	62.7	67.4	72.2	63.6	58.4	61.4	63.8	60.2	7	67.0	61.8	64.0	64.5	64.1	63.5	62.0	63.0	63.3	63.0
8	70.4	59.1	66.3	66.7	70.4	61.9	61.5	61.5	63.2	59.4	8	79.2	62.2	64.4	73.4	79.2	66.1	62.4	66.6	67.2	62.2
9	72.0	52.2	61.8	69.8	66.8	55.9	53.5	55.8	54.6	51.5	9	81.6	59.2	68.9	72.8	80.2	67.0	64.4	65.2	65.8	62.3
10	64.7	47.5	59.7	63.1	61.2	54.3	51.8	52.5	51.4	49.0	10	67.0	60.6	62.7	66.6	65.2	63.3	61.5	62.5	63.4	62.8
11	64.6	47.1	57.5	62.2	62.8	56.9	50.5	51.5	52.2	50.0	11	78.6	56.1	67.0	75.6	76.6	61.6	63.3	65.0	64.9	59.9
12	60.9	50.3	58.3	58.0	59.6	53.0	51.1	50.3	52.5	50.4	12	77.8	55.6	66.0	73.6	67.9	62.2	63.0	66.3	65.8	60.7
13	66.3	47.0	59.2	64.2	64.7	59.3	51.6	53.6	54.8	55.5	13	71.1	56.9	60.9	67.8	68.4	60.9	57.6	60.6	59.7	54.9
14	78.4	52.0	68.1	75.4	77.7	65.4	59.3	62.6	63.0	54.6	14	66.1	56.2	60.8	63.5	65.8	62.0	57.9	58.7	59.2	57.6
15	68.7	51.3	63.1	64.8	66.3	55.8	54.7	56.8	56.8	52.7	15	74.4	53.6	59.6	69.8	73.6	61.1	56.6	60.5	61.6	58.3
16	76.9	47.2	63.7	72.2	76.5	63.8	56.6	60.1	60.7	59.1	16	71.6	58.8	65.0	64.6	70.2	61.0	61.5	61.9	63.4	54.5
17	74.2	52.7	65.0	73.4	73.2	60.3	58.2	62.3	62.7	55.5	17	68.7	56.1	62.9	68.6	66.2	59.3	56.5	56.6	54.6	52.1
18	75.9	51.5	72.2	73.6	72.8	63.2	61.2	61.8	61.4	58.1	18	71.0	53.0	61.4	67.6	69.3	60.5	56.2	58.3	58.6	55.0
19	73.6	53.1	64.8	69.6	72.7	61.6	57.2	59.0	59.3	51.6	19	68.6	56.6	61.9	62.6	66.1	60.4	57.5	60.1	62.0	55.0
20	73.7	48.9	63.0	69.2	73.0	63.5	52.0	55.5	57.2	54.9	20	66.7	53.3	58.7	66.2	66.4	56.3	51.8	54.9	56.5	51.5
21	80.9	49.6	67.2	75.6	79.2	66.1	57.1	59.0	60.0	57.0	21	70.8	46.1	59.7	66.2	61.4	58.2	53.1	54.9	53.0	52.9
22	77.6	55.1	65.7	72.6	74.2	63.8	59.4	62.4	62.4	60.0	22	61.8	48.3	57.4	60.3	60.8	54.7	53.6	54.8	54.8	54.5
23	76.8	60.2	65.1	70.6	74.6	66.5	60.7	61.9	62.7	61.4	23	73.0	49.0	61.3	68.6	71.9	55.9	56.5	57.7	59.3	53.8
24	78.9	62.0	68.7	76.5	77.3	67.1	61.2	63.8	63.7	61.6	24	74.8	49.5	65.7	70.9	72.2	58.3	57.2	59.2	59.0	54.9
25	77.6																				

READINGS OF THE THERMOMETERS IN THE STEVENSON SCREEN IN THE CHRISTIE ENCLOSURE - continued  
 (The readings of the maximum and minimum thermometers apply to the twenty-four hours ending 21<sup>h</sup>.)

Day of the Month	Dry-Bulb Thermometers 4ft above the Ground				Wet-Bulb Thermometers 4ft above the Ground				Day of the Month	Dry-Bulb Thermometers 4ft above the Ground				Wet-Bulb Thermometers 4ft above the Ground							
	Maxi- mum	Mini- mum	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	12 <sup>h</sup>		15 <sup>h</sup>	21 <sup>h</sup>	Maxi- mum	Mini- mum	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>	9 <sup>h</sup>	12 <sup>h</sup>	15 <sup>h</sup>	21 <sup>h</sup>
September										November											
d	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o	
1	67.6	42.4	60.6	63.9	66.4	55.3	53.8	54.8	56.2	54.0	1	54.8	43.2	53.7	54.4	52.1	43.2	52.9	47.0	44.0	40.1
2	66.5	47.7	57.8	63.4	66.5	55.3	50.8	52.8	52.6	49.1	2	54.3	42.4	48.4	52.9	53.0	47.6	44.8	47.1	47.7	45.2
3	66.7	40.0	55.0	62.6	63.6	58.8	50.2	52.6	53.6	50.9	3	55.4	46.6	50.4	55.0	55.0	51.8	47.5	49.8	49.0	50.0
4	63.2	50.2	58.4	62.4	62.1	54.7	53.4	52.6	51.6	51.1	4	62.4	51.8	59.4	61.3	60.4	58.7	56.6	57.8	57.5	56.8
5	65.7	43.9	54.3	62.2	63.4	57.4	50.6	53.8	54.5	52.9	5	68.1	56.0	60.6	66.3	66.9	61.3	58.2	60.9	60.9	58.6
6	62.9	51.3	56.2	56.6	61.3	54.8	52.4	55.3	57.8	54.0	6	62.2	53.4	54.5	55.4	55.6	53.4	53.8	53.9	54.3	52.6
7	63.6	50.0	56.9	62.3	62.8	57.3	52.5	54.5	54.4	55.3	7	55.9	51.5	53.4	55.4	55.5	54.7	51.8	52.8	52.1	50.7
8	64.8	51.3	61.3	61.1	62.3	56.8	57.0	58.5	57.0	53.9	8	55.5	49.1	54.8	54.7	54.4	49.1	51.4	50.9	50.8	48.2
9	63.6	53.3	58.0	60.4	62.9	55.9	54.0	55.3	56.4	50.9	9	50.7	40.4	47.6	50.0	49.4	47.8	46.8	47.6	46.7	46.6
10	63.7	51.4	59.3	62.4	61.3	58.3	55.1	55.2	54.5	53.1	10	60.0	47.2	52.9	57.6	55.6	51.4	50.1	53.8	52.8	51.1
11	68.8	44.6	49.8	60.4	67.6	63.8	49.6	55.4	62.0	60.7	11	62.3	49.2	54.3	62.1	59.2	54.9	52.5	56.3	54.9	53.8
12	79.0	61.0	64.6	74.4	77.9	64.8	61.6	65.4	66.3	62.4	12	61.6	52.0	55.3	60.6	59.6	61.6	53.4	55.5	55.1	56.4
13	79.4	59.4	64.8	73.7	79.4	65.0	61.7	64.3	66.0	61.4	13	61.9	56.0	60.0	61.8	61.8	59.0	55.2	56.9	57.8	58.1
14	73.2	55.4	64.3	70.5	69.8	56.3	58.7	62.6	61.7	55.4	14	59.7	48.8	56.2	58.9	58.6	48.8	54.4	54.8	54.5	48.4
15	62.3	47.6	55.1	59.5	60.9	49.0	49.8	50.2	50.1	46.5	15	50.8	46.3	48.5	49.4	49.4	48.0	48.1	49.0	49.0	47.9
16	66.7	43.0	59.2	64.9	64.3	53.8	52.3	54.0	53.7	50.3	16	54.9	47.2	51.6	54.6	54.3	53.4	50.6	53.5	53.5	53.0
17	70.4	50.3	64.4	67.8	69.1	60.6	57.5	56.5	56.7	57.4	17	54.0	50.6	53.3	53.9	53.6	51.6	52.5	51.0	50.0	49.8
18	68.2	59.2	61.7	63.6	67.0	59.2	61.2	61.8	62.3	58.2	18	55.4	47.8	49.6	55.4	52.2	54.6	49.0	52.8	49.4	52.2
19	67.0	55.1	62.2	63.4	65.4	55.8	57.4	57.1	57.6	53.2	19	55.0	43.5	45.2	50.2	48.6	46.3	42.7	44.5	43.6	43.3
20	68.4	50.9	58.6	61.6	68.0	57.1	56.7	60.1	59.0	54.4	20	50.9	43.0	47.7	50.1	49.7	45.1	46.4	48.6	48.0	43.6
21	60.2	53.4	58.9	59.8	58.4	56.2	56.4	57.2	57.1	55.2	21	46.0	35.5	37.9	44.6	45.0	40.5	37.5	42.6	42.3	40.1
22	70.2	52.1	61.2	67.8	69.0	56.7	58.6	59.6	59.1	55.7	22	47.6	39.3	41.4	45.3	47.2	42.1	39.6	41.7	42.2	40.1
23	79.7	58.1	67.9	77.6	76.7	66.6	64.3	68.4	67.0	64.6	23	57.1	40.5	46.6	55.0	51.8	44.4	53.0	47.3	45.0	41.5
24	74.6	57.1	66.5	70.6	73.0	59.5	63.2	64.4	66.0	59.5	24	46.9	36.4	41.7	45.3	45.6	41.4	39.5	41.4	40.9	39.5
25	68.4	56.0	61.7	64.3	65.8	56.5	61.6	62.6	63.1	55.7	25	52.4	36.5	48.2	50.7	52.1	51.8	46.0	46.8	47.8	49.8
26	64.0	48.4	55.6	62.9	63.0	56.7	55.3	58.8	59.3	56.5	26	52.9	39.4	44.0	48.2	47.8	39.4	41.7	42.6	43.0	38.1
27	63.2	53.3	58.5	62.7	57.3	55.9	56.4	58.8	56.6	55.6	27	47.8	30.1	34.2	44.9	46.6	47.8	33.6	40.6	43.2	46.1
28	62.8	51.7	58.3	60.3	61.6	55.0	55.7	57.5	57.9	54.0	28	52.0	43.1	47.2	49.2	48.9	43.1	47.0	47.4	47.4	41.4
29	64.4	52.3	58.9	61.8	62.6	52.3	58.2	57.5	55.8	51.0	29	43.4	32.3	35.6	42.5	42.6	33.9	34.7	40.1	40.6	33.6
30	66.6	47.0	58.7	65.3	64.0	51.0	55.7	57.0	56.1	50.8	30	51.4	33.0	46.2	50.6	50.6	44.3	44.8	47.4	46.0	41.2
Means	67.5	51.2	59.6	64.3	65.8	57.1	56.1	57.8	58.1	54.8	Means	54.8	44.4	49.7	53.1	52.8	49.0	47.9	49.4	49.0	47.3
October										December											
d	o	o	o	o	o	o	o	o	o	d	o	o	o	o	o	o	o	o	o	o	
1	62.6	47.9	54.9	61.1	60.5	53.3	53.9	54.4	53.2	49.8	1	48.7	41.0	44.6	48.0	43.8	46.3	42.5	42.6	40.9	42.9
2	57.8	48.3	57.8	55.0	52.7	49.1	54.4	54.0	52.0	46.1	2	49.7	40.3	45.0	48.9	47.5	46.4	42.4	44.9	44.3	44.9
3	58.8	43.0	51.8	57.9	54.9	55.9	46.5	50.8	52.4	55.3	3	46.7	37.5	43.0	44.8	45.5	37.5	40.2	41.0	40.0	36.8
4	59.6	49.8	55.0	58.2	57.7	52.2	49.8	49.5	48.5	47.7	4	48.4	29.7	33.6	46.5	47.2	48.2	33.0	43.7	44.0	47.4
5	55.3	47.3	53.7	52.3	49.6	47.3	50.8	47.5	47.6	45.0	5	55.1	41.6	53.4	49.3	48.8	41.6	50.6	45.5	43.8	39.2
6	57.8	45.6	50.7	56.6	56.7	50.6	46.2	48.5	47.7	48.7	6	51.8	39.2	45.9	50.4	50.3	45.2	43.9	46.8	47.0	44.2
7	58.5	49.9	57.6	58.3	54.7	50.3	53.4	57.1	51.8	46.7	7	49.7	41.7	46.2	49.6	47.2	41.8	44.6	46.1	44.0	40.1
8	59.8	47.0	52.3	56.9	59.0	55.0	46.5	49.5	50.5	53.5	8	51.8	40.6	48.9	50.7	51.5	43.5	47.9	49.2	48.9	41.1
9	64.7	54.2	61.9	63.6	61.1	54.2	60.4	59.6	55.2	51.0	9	48.6	33.3	36.0	47.3	48.0	48.0	35.6	44.1	45.0	46.6
10	57.9	46.0	52.7	57.6	57.0	48.6	49.2	51.6	51.0	46.3	10	52.0	47.4	49.9	51.6	50.2	49.0	48.8	49.8	48.0	47.6
11	60.0	44.2	52.5	56.2	58.7	50.8	49.1	50.7	51.7	48.0	11	53.4	46.8	49.6	51.6	51.2	53.2	48.0	49.3	48.9	50.0
12	60.4	46.4	55.5	59.2	58.7	55.8	51.3	54.5	53.7	53.4	12	55.2	44.4	51.3	54.4	52.2	44.4	49.8	51.1	49.5	44.3
13	61.9	55.1	56.9	59.6	61.2	60.6	56.0	57.8	58.6	59.0	13	51.0	43.3	49.0	51.0	50.2	49.1	48.7	48.8	48.1	48.0
14	61.6	51.0	56.8	60.4	60.7	51.3	52.8	52.2	51.4	48.2	14	52.7	45.1	49.6	52.4	51.9	45.1	48.9	51.1	49.8	44.8
15	60.0	45.2	52.5	59.8	59.6	51.2	49.7	53.6	52.2	50.6	15	50.4	38.1	43.6	49.6	49.4	47.5	43.4	48.8	47.2	45.7
16	60.6	49.2	58.5	60.6	60.6	57.5	58.0	58.2	58.0	56.4	16	48.6	45.8	46.6	47.3	47.3	45.8	45.8	46.9	46.9	45.6
17	63.4	49.8	56.9	61.7	61.3	52.1	53.3	54.8	54.6	51.2	17	45.8	29.7	39.1	36.4	33.0	29.7	38.2	34.5	30.7	27.9
18	61.5	50.6	57.5	61.4	58.2	50.8	54.6	55.8	53.8	48.5	18	29.7	25.0	27.4	28.2	27.4	26.6	26.2	26.3	26.0	26.0
19	58.1	45.5	52.5	56.3	57.6	45.5	47.4	48.6	48.7	44.5	19	27.3	24.2	27.3	24.8	25.0	25.9	24.8	24.3	24.0	23.7
20	63.7	38.7	47.0	60.4	60.7	46.6	45.8	54.5	54.8	46.1	20	25.9	21.6	23.6	24.1	25.1	21.6	21.8	21.7	22.9	20.7
21	60.0	43.0	51.3	59.0	57.6	46.2	49.6	52.4	50.1	44.8	21	28.9	20.4	26.0	28.3	28.1	28.9	25.4	27.8	27.8	28.3
22	56.5	39.4	46.2	53.6	55.3	47.0	44.8	49.8	50.7	46.6	22	34.0	26.0	26.3	31.2	33.5	32.5	25.9	30.5	32.2	32.5
23	56.1	44.0	48.7	54.5	55.3	44.5	47.5	49.9	50.3	43.4	23	33.2	27.1	28.6	27.6	28.8	29.5	27.6	26.5	28.0	28.4
24	52.5	31.6	39.1	50.6	51.6	38.2	38.8	46.6	47.2	37.5	24	33.8	29.5	33.6	33.8	32.2	32.8	32.2	32.4	31.0	31.2
25	47.5	31.0	37.2	47.5	44.5	38.0	36.8	46.2	43.7	38.0	25	32.8	28.4	32.2	31.6	29.7	31.5	30.6	30.8	29.3	30.0
26	52.6	36.6	46.6	51.5	51.5	45.9															

READINGS OF THERMOMETERS AT 9<sup>h</sup> ON THE REVOLVING OPEN STAND  
(FORMERLY CALLED "ORDINARY") IN THE NEW SITE IN THE CHRISTIE ENCLOSURE.

1938	MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Day	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	55.1	44.5	61.1	50.7	....	46.9	87.2	63.5	69.2	42.3	66.3	48.4	53.9	43.3	51.6	40.9
2	52.1	42.6	65.6	47.3	67.1	44.8	88.7	59.8	68.6	46.4	64.1	48.4	56.1	42.2	48.6	40.8
3	52.6	44.7	59.8	44.4	72.0	47.3	85.0	58.3	68.6	39.4	58.4	43.1	54.8	46.2	49.5	39.1
4	54.3	44.5	67.9	50.1	70.2	53.0	83.9	55.7	69.2	49.8	60.3	51.0	60.2	49.4	46.6	28.8
5	59.7	42.0	72.8	55.0	70.7	47.4	82.7	56.7	66.2	43.3	60.6	49.8	63.5	57.0	55.6	34.2
6	63.1	42.9	70.2	47.3	....	47.8	83.1	60.6	67.4	51.6	55.3	45.0	67.6	54.3	52.8	38.8
7	61.5	36.3	68.4	56.0	71.1	53.1	86.3	62.3	64.8	49.4	59.5	49.3	56.4	51.3	51.6	44.0
8	55.0	30.3	73.5	58.9	76.4	54.0	86.2	62.4	65.0	50.4	59.9	46.3	56.8	49.1	50.3	40.3
9	57.2	32.7	73.5	52.2	61.8	53.5	81.3	58.5	67.4	53.0	62.6	51.2	55.5	40.0	52.1	33.9
10	60.8	38.3	73.4	47.3	66.4	50.0	83.6	60.6	65.2	49.9	66.6	46.0	53.6	46.2	50.5	36.8
11	61.0	45.5	68.6	46.0	65.3	57.9	68.6	56.1	66.5	42.3	59.3	44.0	59.6	46.6	52.3	46.0
12	66.5	45.3	....	49.8	72.7	56.0	81.1	55.5	70.1	49.5	61.2	46.3	62.9	51.4	54.7	48.0
13	71.4	52.3	65.2	45.2	67.9	52.9	80.9	56.5	80.4	59.0	62.3	54.2	62.3	54.0	54.8	42.3
14	69.7	48.6	71.7	51.2	76.2	54.1	72.8	55.4	80.4	55.6	62.6	51.0	62.3	54.3	51.5	48.0
15	79.0	54.5	82.2	51.3	70.1	58.3	68.3	52.4	75.1	46.9	64.6	44.8	60.5	45.7	53.3	37.7
16	69.3	49.3	71.0	47.2	67.8	53.4	76.1	56.8	65.8	43.0	....	48.5	51.8	45.2	51.5	43.2
17	61.7	43.3	79.1	52.0	69.2	54.1	73.3	56.3	69.2	51.0	....	49.5	55.3	50.3	47.8	38.5
18	58.6	46.2	77.2	51.6	74.6	55.9	71.2	53.1	71.3	59.3	....	51.4	54.8	46.4	39.5	24.1
19	60.4	42.3	76.1	53.0	70.2	56.4	73.4	56.9	69.6	55.3	....	49.0	56.6	42.0	29.7	25.3
20	56.5	40.8	77.0	49.2	79.7	55.9	70.2	53.5	68.5	51.1	59.9	38.5	50.6	42.0	27.4	22.0
21	58.4	38.8	76.8	49.8	78.9	58.3	68.7	46.4	69.9	53.5	62.3	41.3	51.3	35.6	26.7	19.5
22	63.8	40.3	83.3	55.3	79.1	59.3	72.9	48.7	64.4	52.4	60.1	38.1	46.2	38.1	29.4	25.3
23	69.6	43.4	80.3	80.3	73.2	53.7	64.0	48.5	70.3	56.0	56.5	42.6	58.1	38.1	33.8	26.3
24	73.4	45.2	79.2	62.3	76.2	51.3	75.5	49.5	79.5	56.4	57.4	31.3	57.4	35.3	33.6	27.1
25	64.4	48.3	80.1	59.3	81.0	54.9	78.3	48.9	75.4	58.4	53.4	31.3	48.6	35.3	34.2	30.6
26	61.5	38.9	79.4	55.1	78.1	57.7	80.4	56.0	70.1	48.5	47.9	36.5	53.3	42.3	32.5	27.9
27	63.4	49.3	77.5	60.5	76.1	52.0	73.1	52.8	65.2	52.7	52.5	37.6	47.6	29.3	41.6	28.8
28	65.8	47.5	67.0	52.6	74.9	52.9	74.1	53.3	64.2	52.0	48.1	40.9	52.4	33.2	43.3	36.7
29	60.2	43.8	68.3	55.7	72.6	51.9	68.6	53.3	64.2	54.0	53.5	36.1	50.6	31.3	41.9	37.2
30	61.8	47.8	71.2	50.4	73.3	54.9	57.6	42.9	66.2	46.9	53.3	39.2	46.4	33.8	47.3	35.5
31	....	44.1	....	....	80.3	61.0	64.4	41.6	....	....	57.0	39.3	....	....	42.7	33.2
Mean	62.3	43.7	73.0	52.2	72.9	53.6	75.5	54.7	69.3	50.6	58.7	44.2	55.6	43.6	44.5	34.9

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1938

Gauges partly sunk in the Ground in the Christie Enclosure.	Monthly Amount of Rain collected in each Gauge														Height of Receiving Surface	
	Number of Gauge	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sums	Above the Ground	Above Mean Sea Level
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	ft. in.	ft. in.
6	2.436	0.617	0.333	0.104	1.660	0.414	1.317	2.192	2.906	2.074	3.089	2.372	19.514	0 5	149 6	
8	2.407	0.629	0.356	0.093	1.617	0.396	1.302	2.180	2.916	2.071	3.058	2.362	19.387	1 0	150 1	
Number of Rainy Days (0.005 in. or over).	24	11	5	3	15	6	13	12	18	14	17	22	160	...	...	

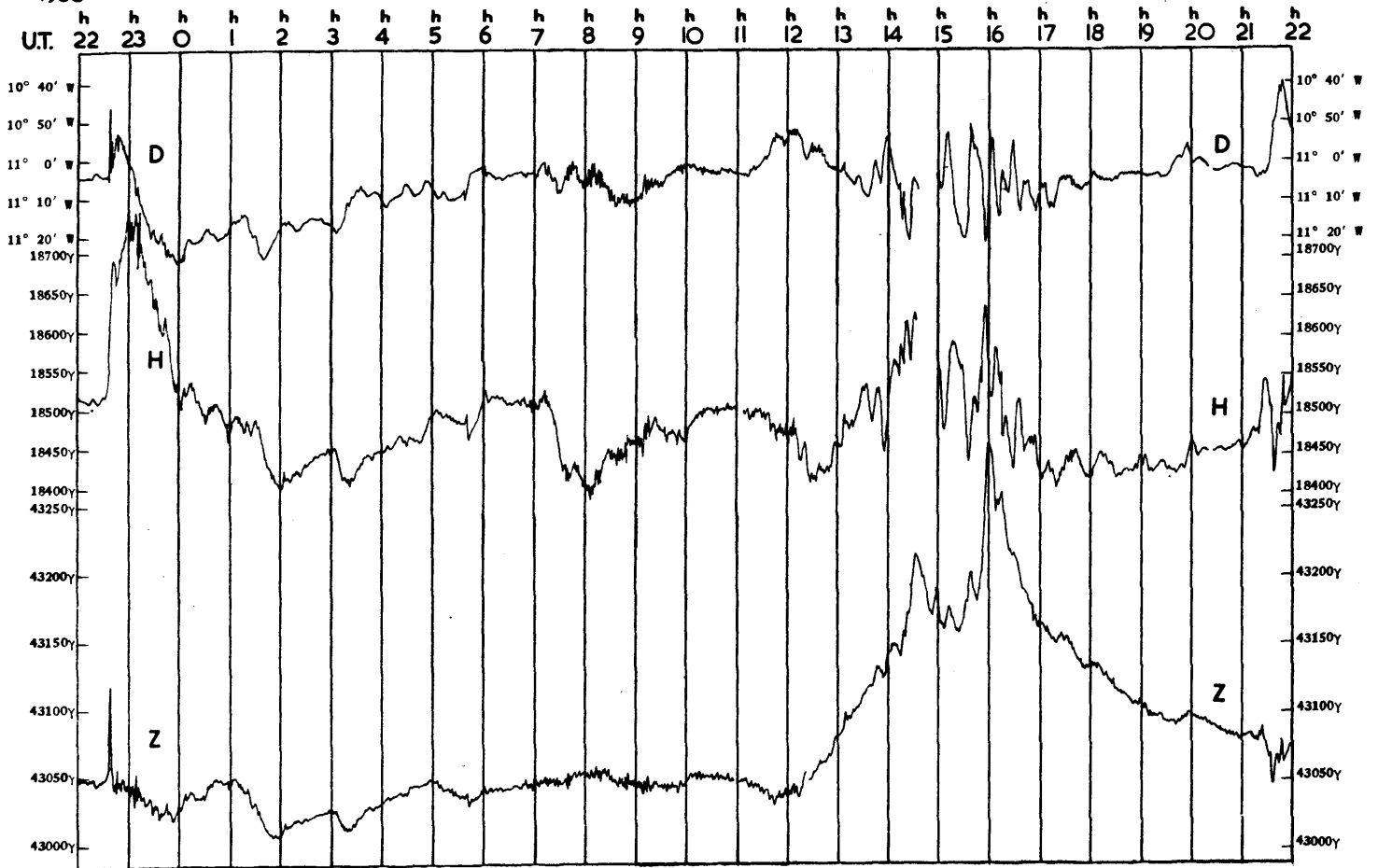
MEAN HOURLY MEASURES OF THE HORIZONTAL MOVEMENT OF THE AIR, IN EACH MONTH,  
AND GREATEST HOURLY MEASURES, AS DERIVED FROM THE RECORDS OF ROBINSON'S ANEMOMETER\*

Hour Ending	January	February	March	April	May	June	July	August	September	October	November	December	Mean for the Year
	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
1 <sup>h</sup>	13.3	13.9	11.1	10.2	10.9	11.6	10.1	9.4	9.3	11.9	13.6	12.7	11.5
2	14.5	13.8	11.2	9.8	11.3	12.4	9.9	9.2	9.3	11.8	13.5	12.6	11.3
3	13.8	13.4	10.7	9.2	11.0	11.7	10.0	9.2	8.7	12.0	12.9	12.3	11.2
4	13.9	13.6	10.4	9.8	11.0	11.2	10.1	8.9	8.8	12.3	12.8	12.5	11.3
5	14.5	13.6	10.6	10.0	11.0	11.4	10.1	9.5	9.3	12.5	12.6	12.6	11.5
6	14.2	13.3	10.6	10.3	10.5	12.1	10.0	9.1	9.5	12.3	12.2	12.6	11.4
7	14.7	13.3	10.9	10.4	10.7	12.3	10.4	9.1	9.3	12.3	12.8	12.9	11.6
8	15.3	13.5	10.9	10.8	11.9	12.6	10.5	9.0	8.8	12.5	12.9	12.6	11.8
9	15.5	13.1	11.1	12.0	13.0	13.0	11.4	9.4	9.6	13.2	12.8	13.0	12.3
10	15.2	14.3	11.4	12.4	13.3	13.3	11.6	9.9	10.1	13.5	12.6	13.1	12.6
11	16.2	15.0	12.7	12.8	13.8	14.1	11.6	10.2	10.8	14.0	13.4	13.9	13.2
12	16.8	16.5	13.7	13.4	14.3	15.0	12.3	10.5	11.1	14.8	14.3	14.0	13.9
13	16.2	15.8	13.2	13.4	13.8	14.5	12.2	10.1	10.7	14.1	13.9	13.5	13.5
14	16.1	15.6	13.5	13.5	14.6	14.7	12.2	10.7	11.2	14.1	14.1	13.4	13.6
15	16.2	16.0	14.3	13.6	14.3	14.8	12.5	11.0	11.7	14.2	14.2	14.0	13.9
16	15.0	15.3	13.8	13.7	13.8	14.9	12.7	11.1	11.7	13.5	13.4	13.5	13.5
17	15.0	14.7	13.5	13.6	13.8	15.3	13.0	11.4	11.3	13.1	12.6	13.5	13.4
18	14.9	14.8	12.7	13.7	13.9	14.8	12.8	11.5	11.5	13.1	12.6	13.7	13.3
19	14.1	13.9	12.1	13.2	13.2	14.1	11.6	10.6	10.7	12.5	13.0	13.4	12.7
20	14.3	14.3	12.2	12.5	12.6	13.5	11.7	10.3	10.0	12.7	13.5	13.3	12.6
21	13.7	14.2	11.5	11.8	11.8	12.9	11.2	9.7	10.0	12.7	13.5	13.3	12.2
22	14.0	14.0	11.4	11.4	11.3	11.9	10.5	9.5	9.4	12.4	13.5	13.0	11.9
23	14.3	13.5	10.9	10.8	11.5	12.0	10.6	9.4	9.5	12.4	13.7	12.7	11.8
24	14.4	13.6	10.9	10.8	11.7	11.9	10.2	9.5	9.4	12.4	13.7	12.1	11.7
Means	14.8	14.3	11.9	11.8	12.5	13.2	11.2	9.9	10.1	12.9	13.3	13.1	12.4
Greatest Hourly Measures	37	32	22	25	26	30	24	22	20	33	35	25	..

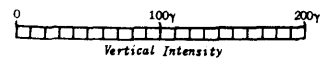
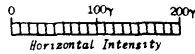
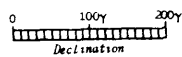
\* The measures are derived from the motion of the cups by the formula  $V = 2v + 4$ ; where  $v$  is the hourly motion of the cups in miles. See Introduction

MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION.

JAN. 16<sup>d</sup> - 17<sup>d</sup>  
1938



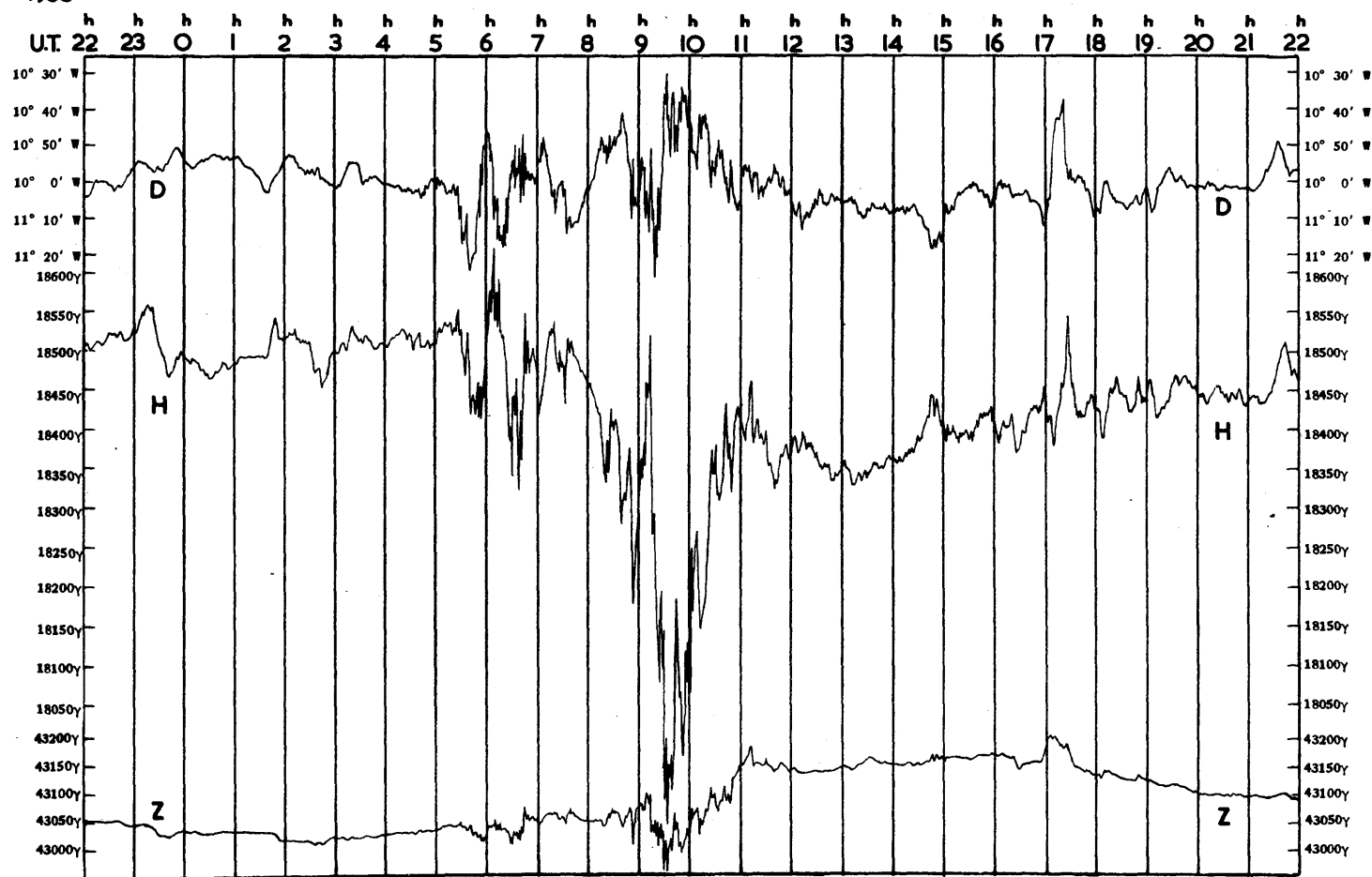
SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.



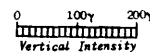
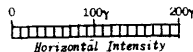
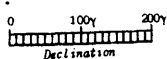


MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION.

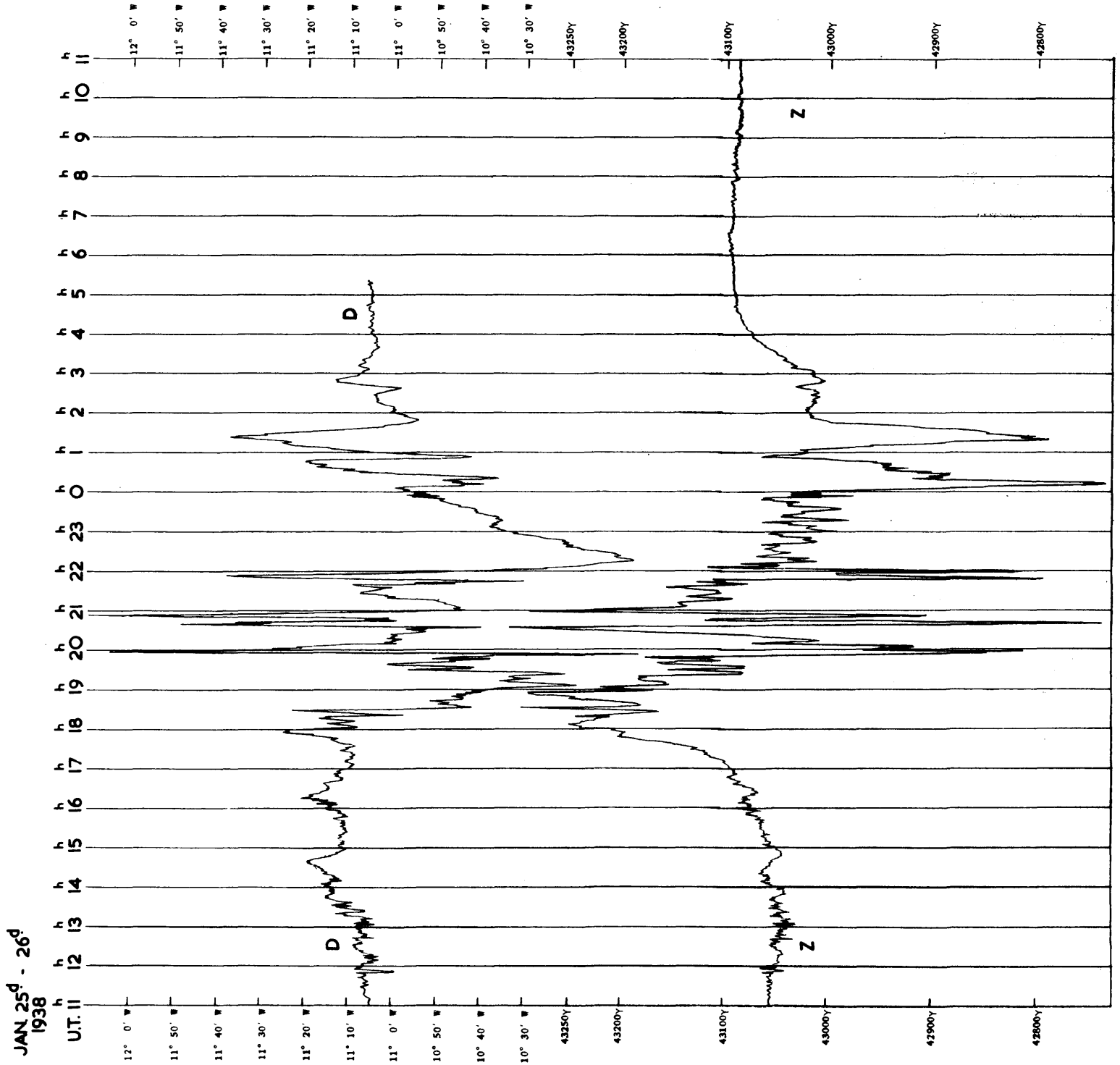
JAN. 21<sup>d</sup> - 22<sup>d</sup>  
1938



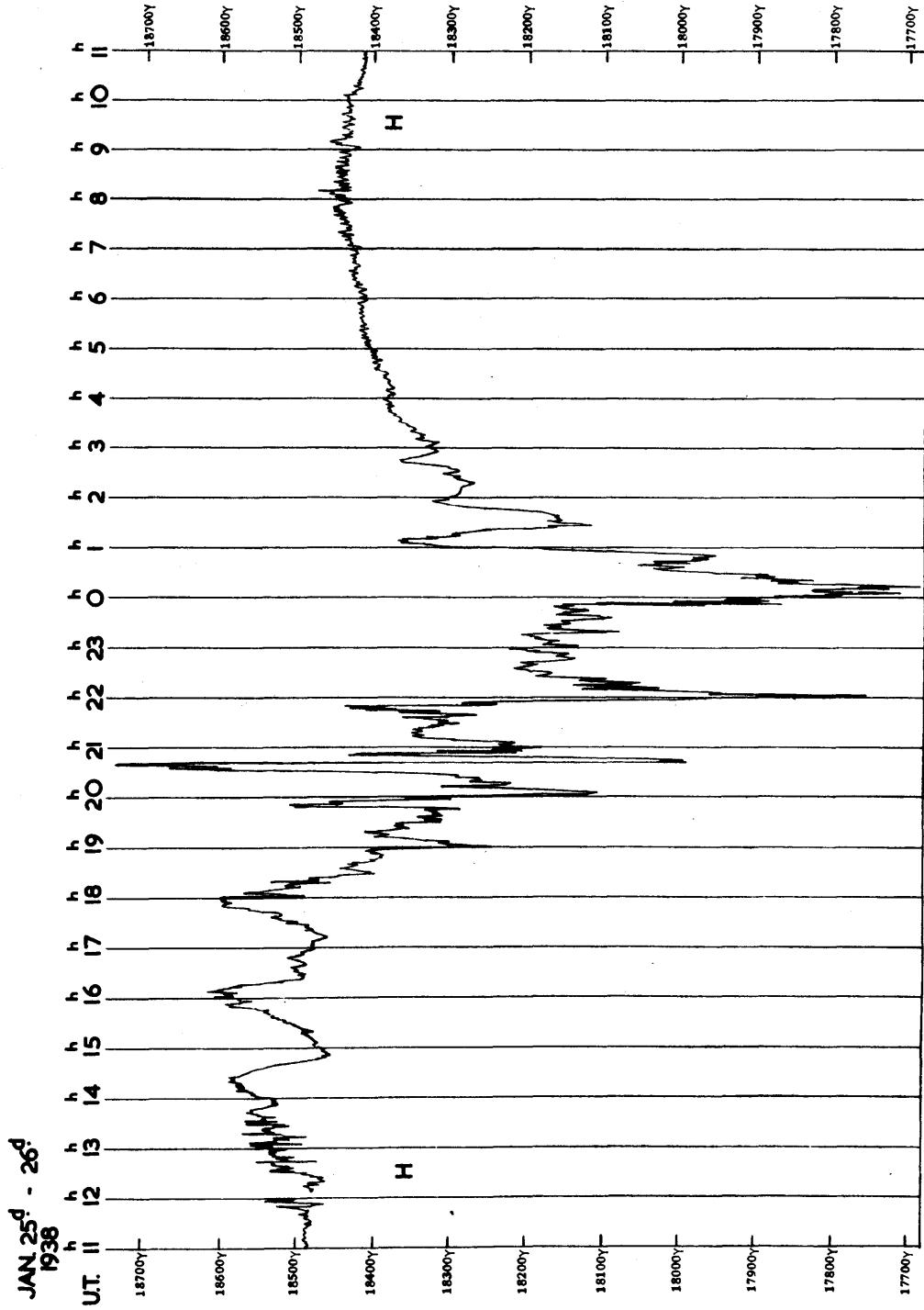
SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.



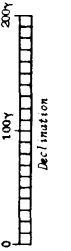
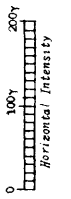
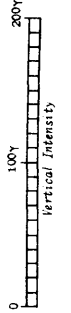
MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION.



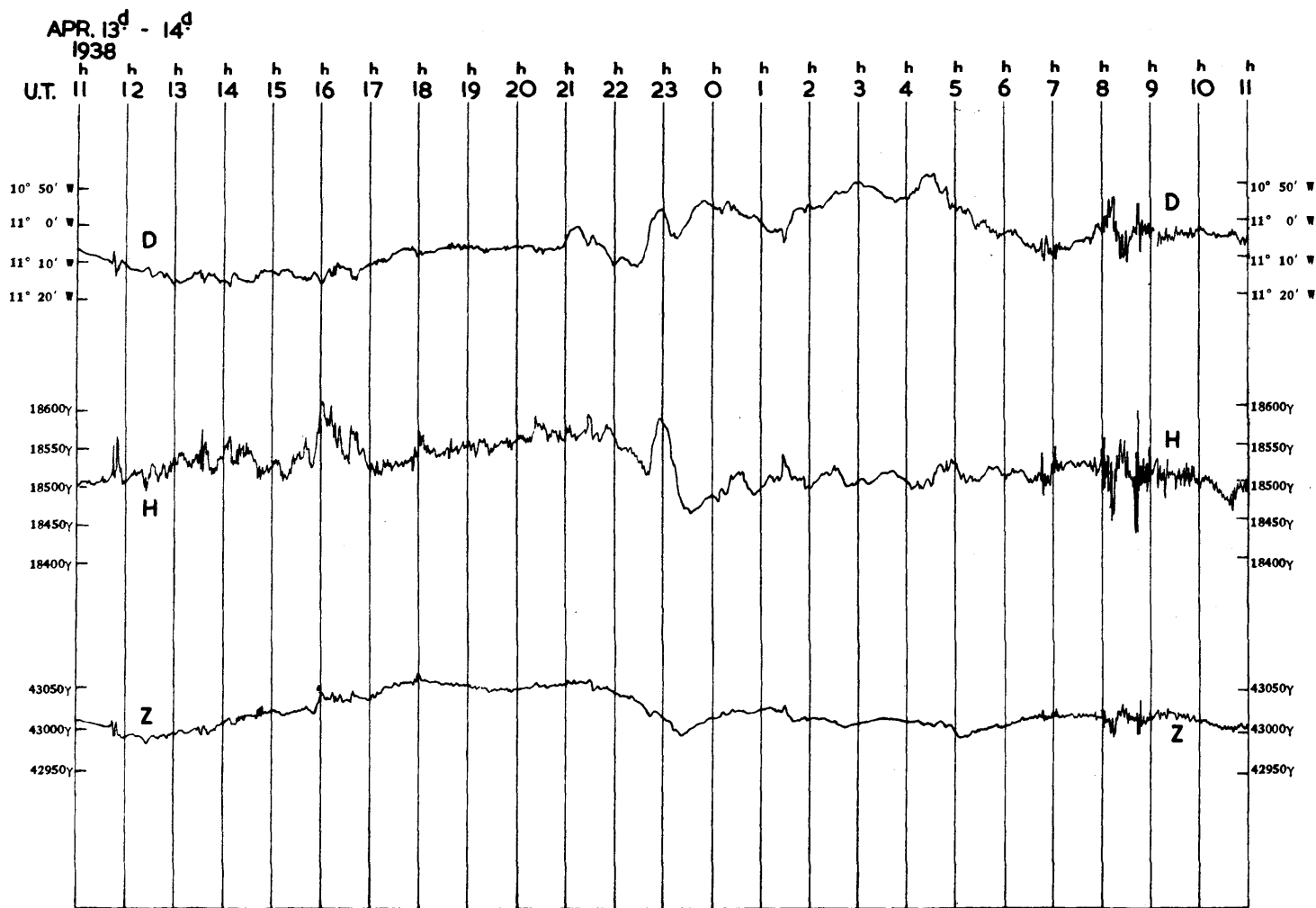
MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION.



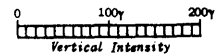
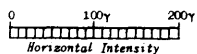
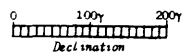
SCALES FOR MAGNETIC ELEMENTS IN CGS. UNITS.



MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION

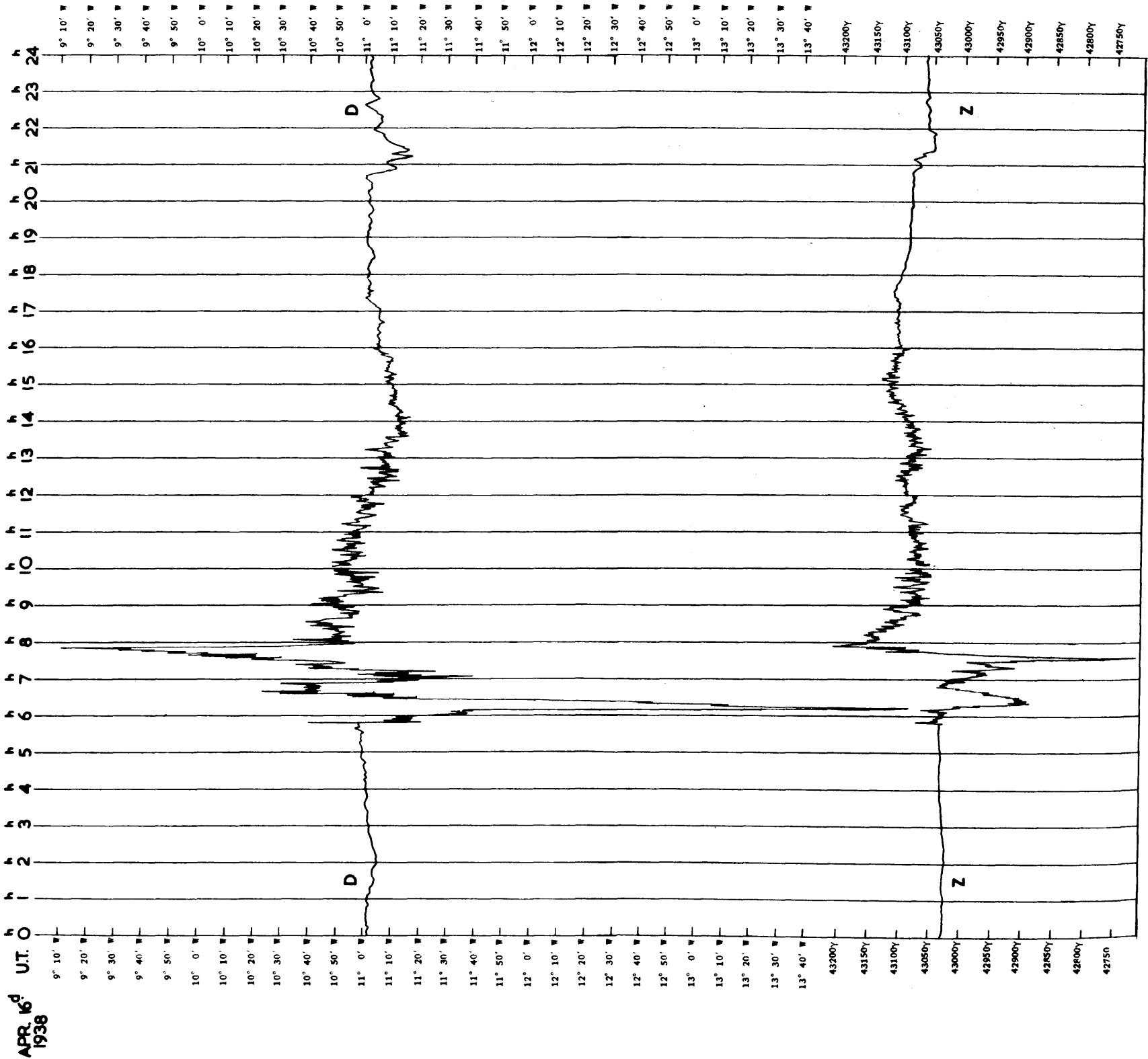


SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.

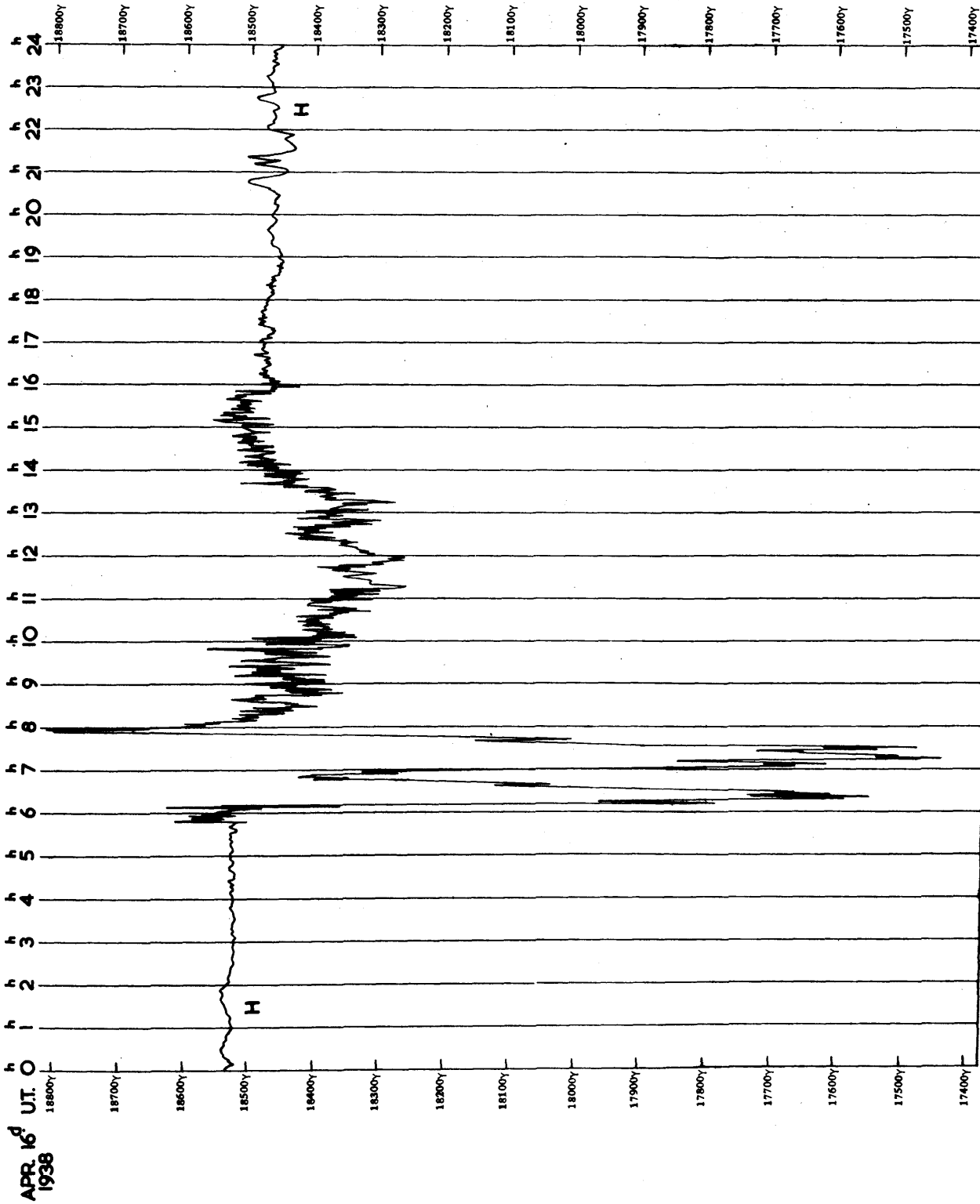


See overleaf for PLATE V.

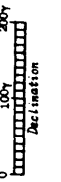
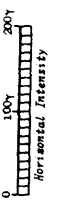
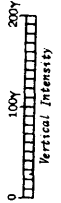
MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION



MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION

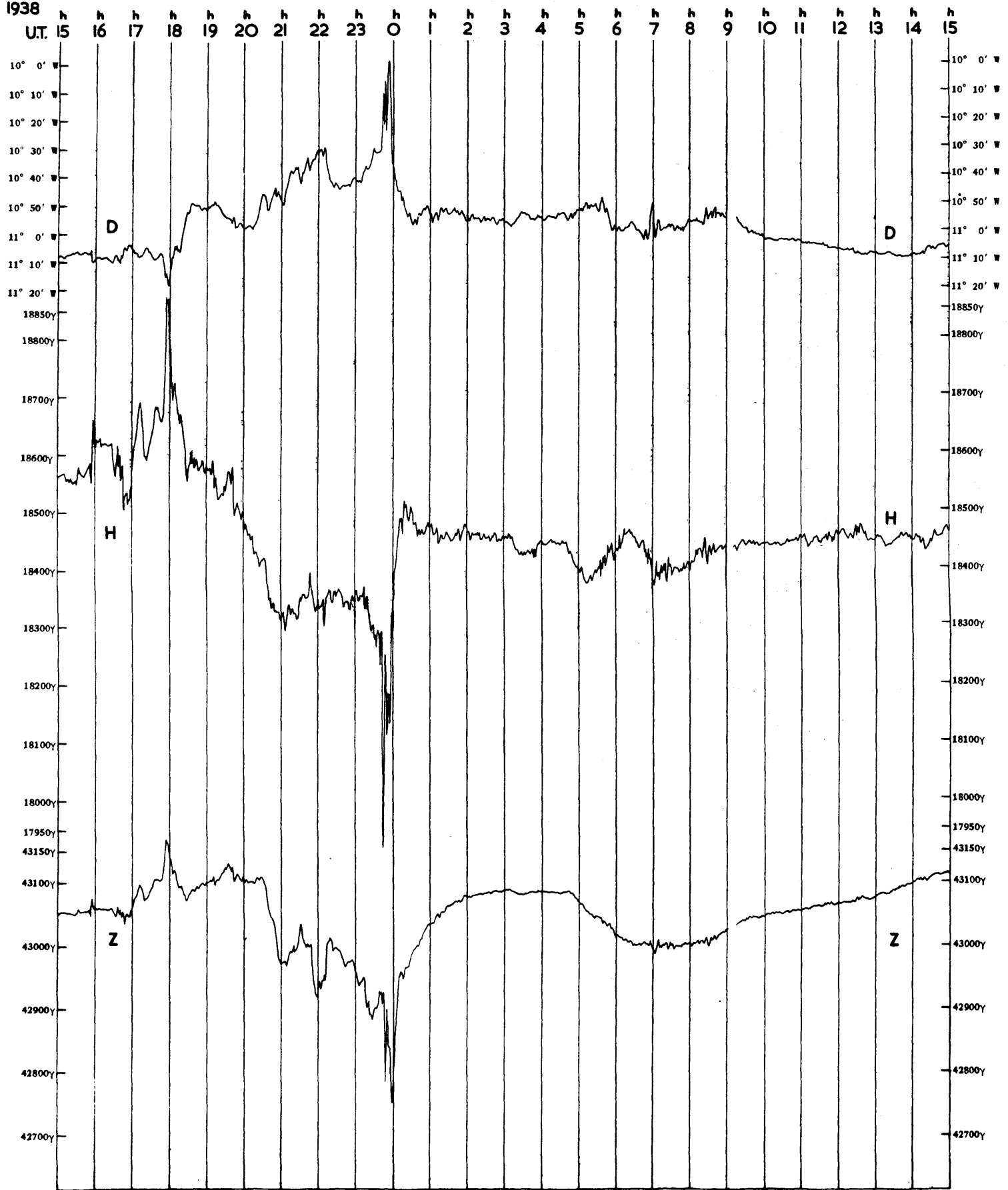


SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.

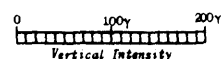
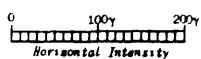
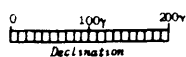


MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION

MAY 11<sup>d</sup> - 12<sup>d</sup>  
1938

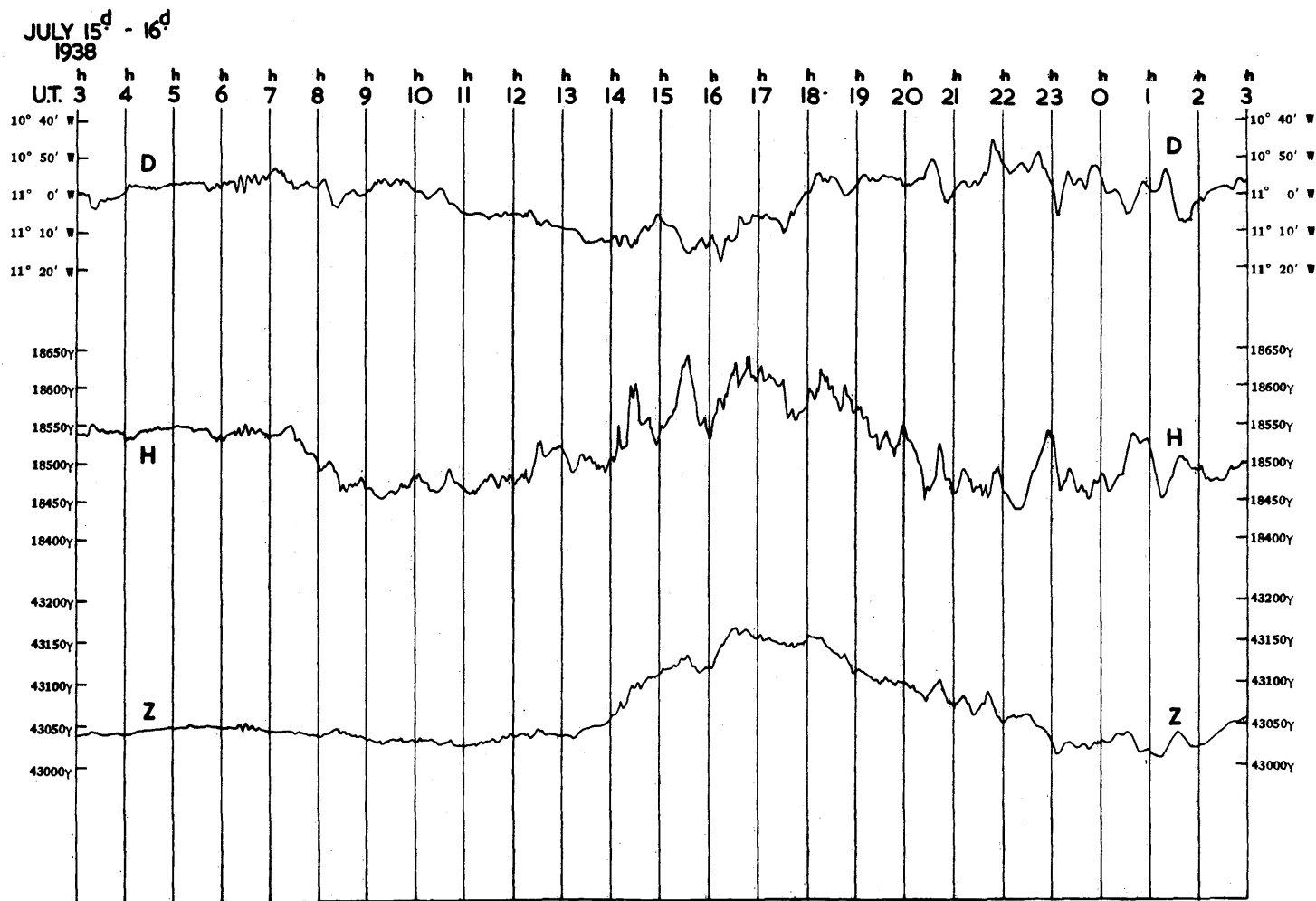


SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.

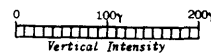
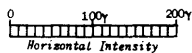
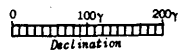




MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION

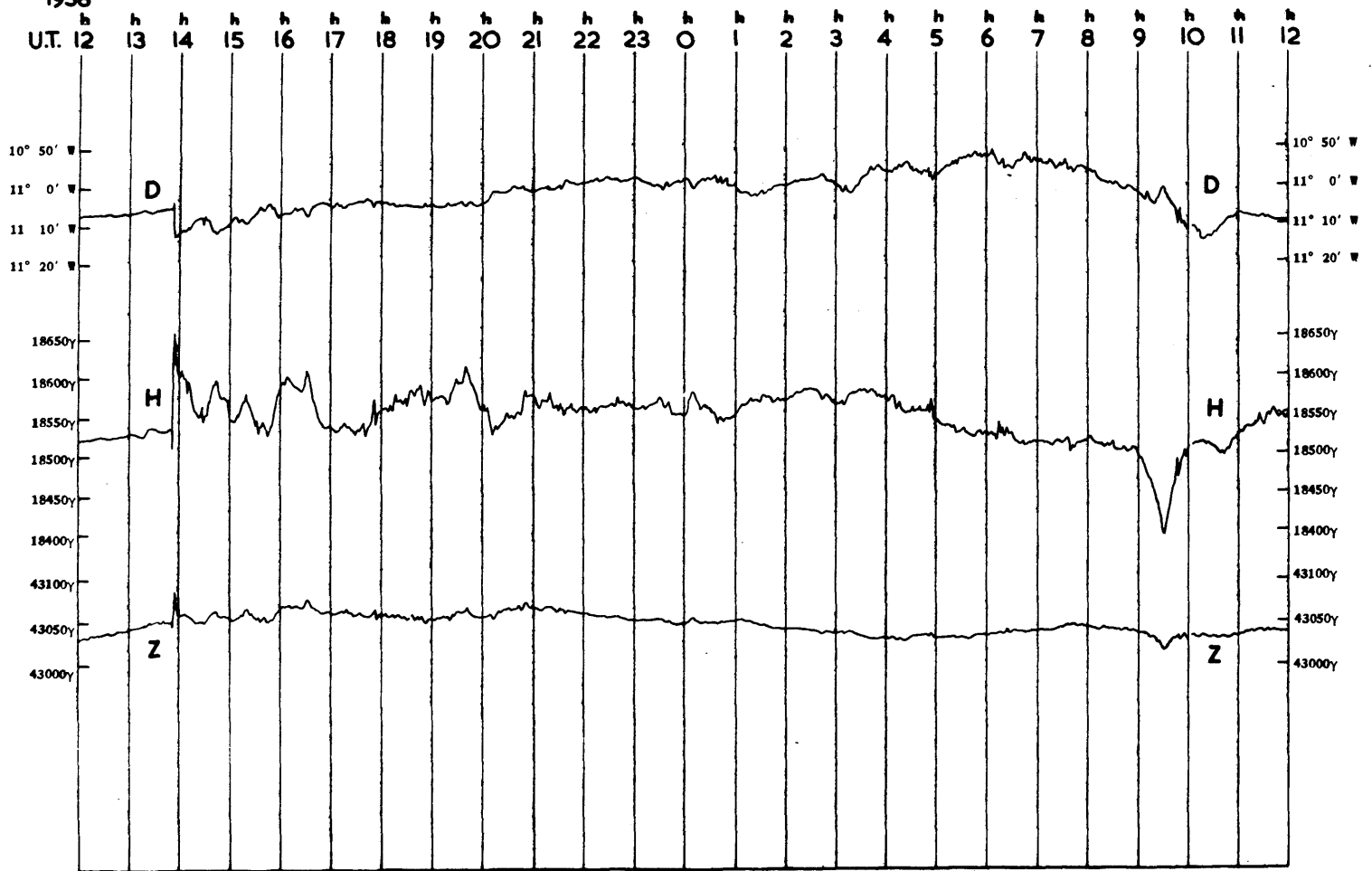


SCALES FOR MAGNETIC ELEMENTS IN CGS. UNITS.

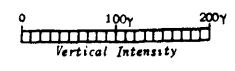
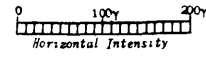
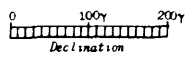


MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION

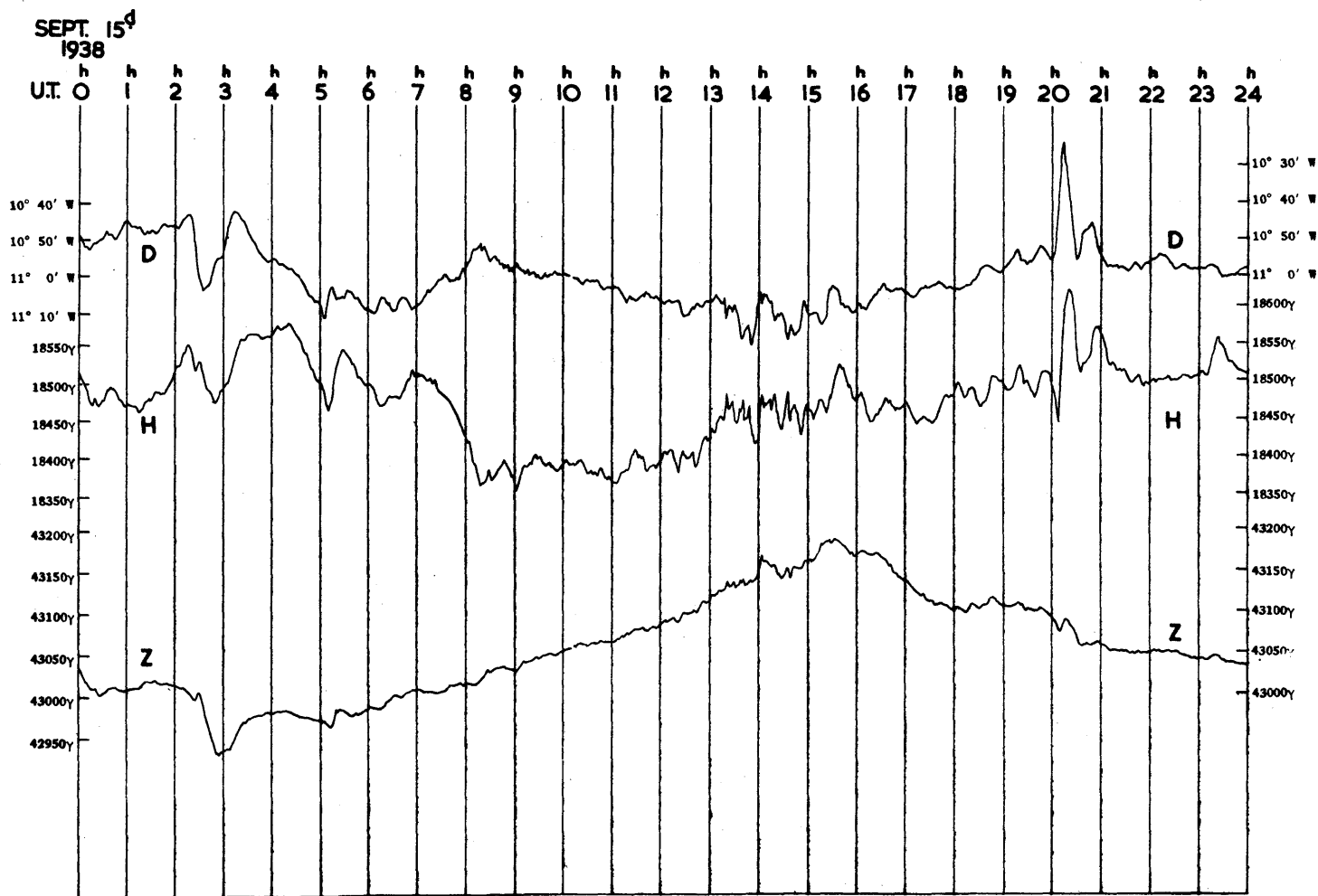
AUG. 22<sup>d</sup> - 23<sup>d</sup>  
1938



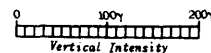
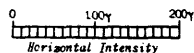
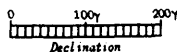
SCALES FOR MAGNETIC ELEMENTS IN CGS. UNITS.



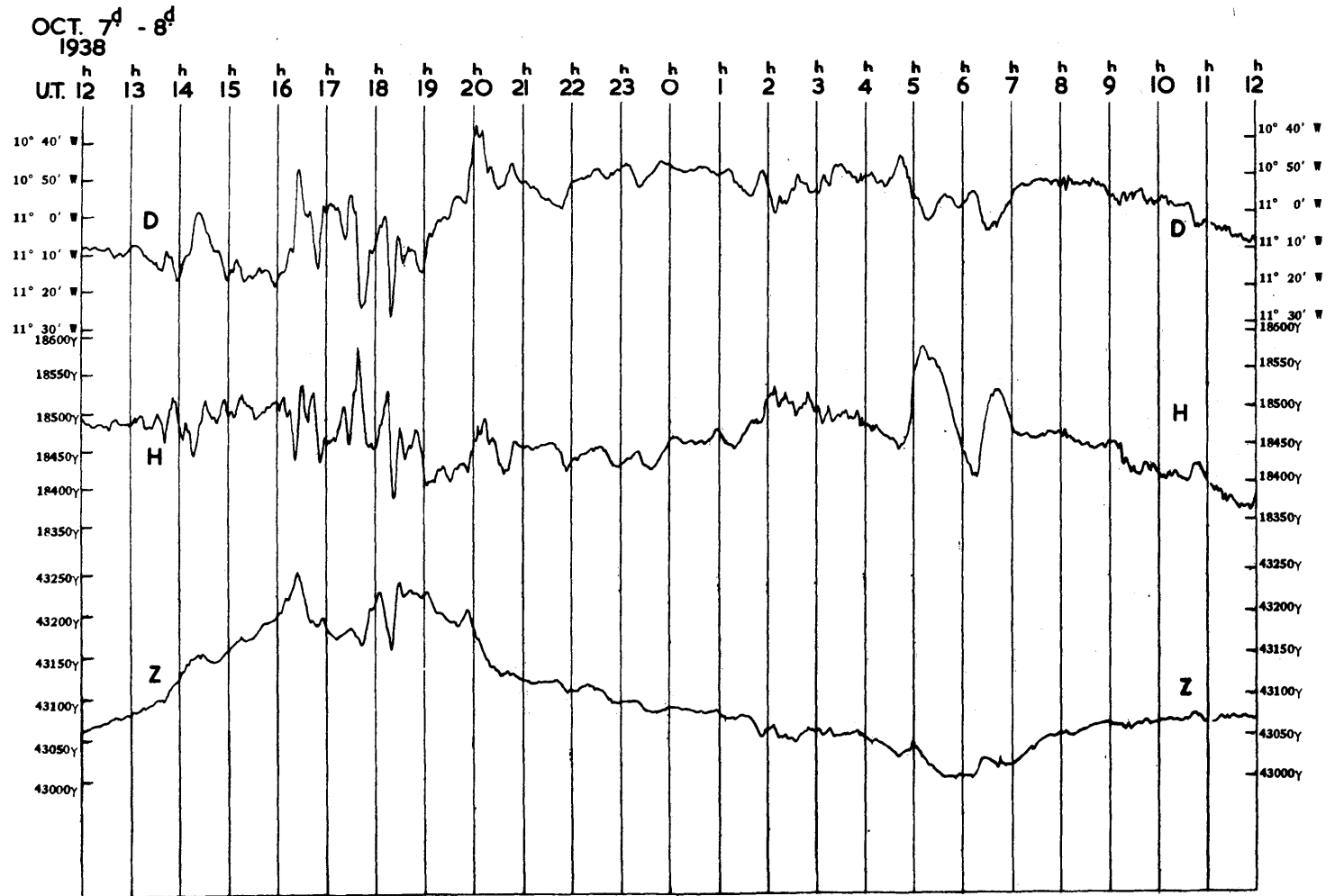
MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION



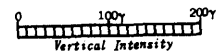
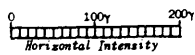
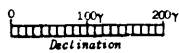
SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.



MAGNETIC DISTURBANCES AS RECORDED AT THE  
ABINGER MAGNETIC STATION



SCALES FOR MAGNETIC ELEMENTS IN C.G.S. UNITS.



**NOTES.**

**NOTES.**

