



**RESULTS OF THE MAGNETIC  
AND METEOROLOGICAL OBSERVATIONS**

**MADE AT THE ABINGER MAGNETIC STATION, SURREY**

**AND THE ROYAL OBSERVATORY, GREENWICH**

**RESPECTIVELY IN THE YEAR**

**1940**

UNDER THE DIRECTION OF

**H. SPENCER JONES, Sc.D., F.R.S.**  
ASTRONOMER ROYAL

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1953

MAGNETIC AND METEOROLOGICAL RESULTS, 1940

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ROYAL GREENWICH OBSERVATORY

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## C O N T E N T S

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THE ROYAL OBSERVATORY, GREENWICH,

AND

ABINGER MAGNETIC STATION, SURREY.

MAGNETIC AND METEOROLOGICAL OBSERVATIONS, 1940.

## INTRODUCTION

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### STAFF

During the year 1940, the staff serving in the Magnetic and Meteorological Department consisted of W. M. Witchell, Superintendent, E. A. Chamberlain, G. F. Wells, P. L. Rickerby, B. R. Leaton, N. S. C. Rhodes and two ladies engaged in computational work. Mr. Chamberlain, resident observer and assistant-in-charge, with his assistant Mr. Rickerby, were employed exclusively at the Abinger Magnetic Station.

### ABINGER MAGNETIC OBSERVATIONS

THE MAGNETIC STATION - *Site* (Lat.  $51^{\circ} 11' 5''$  N; Long.  $0^{\circ} 23' 12''$  W). Established in 1924 the station is situated on the northern slope of Leith Hill, Surrey, 800 feet above sea level. It is approximately 26 miles from the former site at Greenwich in a direction a little south of south-west. The nearest railway track lies at a distance of about  $2\frac{1}{2}$  miles.

*The Pavilions.* The absolute observations are made in the main pavilion which is constructed of carefully chosen non-magnetic materials. It is approximately 28 feet long by 15 feet wide and contains four stoutly built hard wood piers embedded into concrete bases 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 measuring horizontal intensity; on the south-east pier, the coil-magnetometer for measuring the vertical intensity; and on the south-west pier the Earth-inductor for observing the magnetic inclination.

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

A third pavilion measuring 20 feet square was added in 1932. More convenient and suitable for comparative observations than the second, this pavilion occupies a corresponding position to

## ABINGER MAGNETIC OBSERVATIONS, 1940.

the north-east of the main pavilion. It contains three circular wooden piers set into concrete and free from contact with the floor, similar to those in the main pavilion.

*The Magnetograph House* stands 50 feet east of the main pavilion and is oriented with its principal axis north and south. An inner chamber, designed to house the magnetographs at a uniform temperature, measures 15 feet long by 12 feet wide by 8 feet high and is supported on small concrete piers. The whole structure is contained within an outer chamber whose walls are constructed to have a low thermal conductivity and are nearly two 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 a series of low-temperature non-magnetic metallic resistances distributed along the base of the walls and fed by alternating current drawn from the public mains supply.

The temperature of the magnetograph chamber is controlled by a thermostat placed at the centre of the room at the same level as the magnetic instruments. Daily readings of a thermometer attached to one of the variometers show that the departures from a mean temperature do not exceed  $0^{\circ}2$  C.

Projecting up through the floor are five concrete piers. Two of these, designed originally to support recording mechanisms, occupy the north-west and south-east corners of the room, their longer sides being transverse to the meridian. In 1938 a massive slate slab measuring 8 feet by 2 feet by  $1\frac{1}{2}$  inches was cemented upon the pier occupying the south-east corner. The other three piers are situated at positions 2 feet west and 2 feet 6 inches south of the north-east corner; 5 feet 6 inches west and 5 feet south of the same corner and 2 feet east and 3 feet north of the south-west corner. Also, in 1938 a heavy wooden table 8 feet by 3 feet was installed near the centre of the room to carry new recording mechanism. The legs of this table pass freely through the floor of the chamber and are cemented into the concrete base of the main building.

LAYOUT OF RECORDING INSTRUMENTS. At the beginning of March 1938 the apparatus used since 1925 to record D and H was superseded by La Cour variometers. These instruments are set up at the south end of the recording chamber in a line running geographically east and west. They occupy the eastern half of the slate slab previously described. The La Cour recording mechanism is mounted upon the table also referred to in the previous paragraph.

Occupying the western halves of the slate slab and wooden table is a "quick-run" magnetograph (*See p. vii*). On the opposite corner pier is mounted the recording mechanism of a wide-range magnetograph, the declinometer of which is carried by the same pier (*See p. vii*). The accompanying H variometer is mounted on the south-west pier, formerly occupied by the Watson quartz-fibre Z variometer.

VARIOMETERS - *The La Cour Horizontal Intensity Variometer.* A complete description of this instrument is to be found in *Publikationer fra det Danske Meteorologiske Institut*, No.11 (Copenhagen 1930), but for general information some details are given here. The magnet of cobalt steel, is 8 millimetres long and weighs about 25 milligrams, the magnetic moment being 3.2 c.g.s. units. It is suspended at right angles to the earth's horizontal field by means of a quartz-fibre thickened at each end to form a small cone. Each cone fits into a conical brass socket having a fine slit in its side through which the fibre has passed. 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 and the torsional constant of the quartz fibre is attained by optical means in which compensatory deflection of the emergent ray is produced by proportional curving (under temperature changes) of a bi-metallic lamina which supports a prism controlling the ultimate direction of the ray.

## ABINGER MAGNETIC OBSERVATIONS, 1940.

A small Helmholtz-Gaugain coil, having a field of 7.43 gamma per milliampere and made to envelop the variometer, is used both to orientate the magnet correctly with respect to the earth's field and to determine the scale-value of the record. The adopted scale-value during 1940 was 4.50 gamma per millimetre.

*The La Cour Declination Variometer.* The general features of this instrument correspond closely to those of the variometer just described. The scale-value adopted during 1940 was 0'.92 per millimetre. Expressed as magnetic intensity the scale-value would be 4.96 gamma per millimetre at the present time.

*The La Cour Vertical Intensity Variometer.* This instrument is fully described in *Publikationer fra det Danske Meteorologiske Institut No.8*. The recording magnet, including knife-edges and mirror, is fashioned from a single piece of cobalt steel, with the purpose of eliminating the possibility of relative movements among its parts. It is oriented approximately at right-angles to the magnetic meridian. Compensation for temperature changes is optically effected as in the horizontal intensity variometer. The scale-value, determined by the small Helmholtz-Gaugain coil already mentioned, is 4.00 gamma per millimetre.

The instrument was installed in 1938, but records of Z were continued with the Quartz-thread variometer until the end of 1939.

*The Quick-run Variometers.* These consist of a set of instruments closely resembling those described above and adapted by La Cour's method to record on a time scale of 3 mm. to one minute, i.e. twelve times as great as the normal scale. This recorder has been in regular use since 1938 November.

*The Wide-range Variometers.* Instruments formerly serving as standard variometers for H and D have been adapted to serve as wide-range recorders capable of registering on a small scale the largest variations in the two elements deemed possible of occurrence at Abinger. The H variometer which was superseded as the standard by the La Cour recorder, has been "desensitised" by the addition, immediately beneath its base-plate, of a bundle of strongly magnetised needles set at right-angles to the magnetic meridian. The scale value is 19.5 gamma per millimetre. The D variometer used at Greenwich from 1917 to 1925, is now fitted with a lens of 50 cms. focal length which gives a scale value of 3'.7 per millimetre. The two instruments are located as described on p. vi. The present position of the D variometer is such that it is necessary to deflect the recording light-rays towards the recording cylinder through a large angle, and an appropriate mirror rigidly supported between the variometer and cylinder, forms part of the apparatus. The wide-range variometers have been in regular operation since 1940 June.

*Recording Mechanism.* The two principal features of the La Cour recorders are: the three elements H, D and Z are recorded on separate strips of a single photographic sheet; the range over which the elements are able to record is greatly extended by the use of prisms in the optical train which furnish a multiple set of images. For each element are formed six secondary images, three on each side of the principal image, the separation being so adjusted that the image from one prism appears at the edge of the record just before the adjacent image passes off the opposite edge. The time scale is approximately 15 mm. to the hour.

The time-marks are in all cases photographically printed on the sheets by momentary automatic illumination of an electric lamp. In the case of the La Cour magnetograph the original arrangement provides a series of small dots which constitute a second interrupted trace of the element.

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These marks, however, have been supplemented by thin time lines extending the whole width of each record, these lines being produced by adjustable long narrow mirrors which reflect light from an auxiliary time signal lamp. In the case of the "quick-run" and "wide-range" recorders, only the thin lines are printed.

The time-signals are derived from a relay connected to a mean solar clock in the computing room. For a period of one second at every tenth minute of Universal Time the clock operates a relay which in turn operates the lamps. Additional signals at the first and fifty-ninth minute of each hour serve to distinguish the hour signals. The error of the clock is observed daily by comparison with a time-signal radiating from one of the official broadcasting stations. The error which seldom exceeds one second, is eliminated by temporarily adjusting the clock rate electro-magnetically over the required period of a minute or two.

**OBSERVING INSTRUMENTS - Declinometer.** 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° 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 are made at intervals by means of observations of Polaris. During each observation both direct and reflected views of the star 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 Schuster-Smith Coil Magnetometer.* This instrument is on loan to the Observatory from the National Physical Laboratory. It is the second of the type constructed and is rather smaller than the original instrument, a detailed 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 measurement 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 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.

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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 approximately 2 metres 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 quantity by rheostat according to the indications of a Broca galvanometer in a potentiometer circuit in which the fall of potential across a known resistance is brought to equality with the voltage 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 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 imposed at an angle of nearly  $180^\circ$  with the earth's field, a precise 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 the 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 bar of similar dimensions 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 which 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 horizontal component of 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 azimuthal 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.

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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 measurement 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  $3.59570 (1.0000043t)$ ,  $t$  being temperature Celsius.

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.

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 1940 is based were verified in February 1939. To convert the measure of current from international units to c.g.s. units the factor adopted prior to 1938 January 1 was .99997; but from this date onward the value has been .99988. The change introduces a discontinuity into the deduced values of  $H$  of  $-1.7\gamma$ .

A Kew-Pattern Unifilar Magnetometer (Casella No.181) is also used to determine absolute horizontal intensity. Deflection observations are made at three distances, namely 22.5, 30 and 40 cms. Eleven observations of the moment of inertia of the collimator magnet were made during the year 1940. The mean observed value of  $\log. K$  from these determinations was 2.42369. 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 11 normal determinations made during the year are +10.10 and -1879 respectively.

The values used in the reduction of the 1940 observations, however, are the mean values obtained from a series of 235 special observations made during 1936. These values are:-  $P = +9.17$ ;  $Q = -1409$ . The principle and method employed in the reduction of these special observations are described in the Results for 1936. In computing the observed values of horizontal intensity the deflection at 22.5 cms. has not been used since 1936.

The magnetometer, mounted until August 1928 in the main pavilion, is now used in the north-east pavilion (See p. v).

*The Vertical Intensity Coil Magnetometer.* This instrument, designed by D. W. Dye, for direct measurement of vertical intensity and constructed under his supervision at the National Physical Laboratory, Teddington, is on loan to the Royal Observatory from the Laboratory. It is erected on the south-east pier of the observing pavilion and was adopted as the standard for measurement of vertical intensity from 1929 January 1.

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A full description of the instrument is published in *Proceedings of the Royal Society*, Ser.A, Vol.117 (1928), pp.434-458. 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 of 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. x*). The current is taken from the battery which supplies the Schuster-Smith instrument.

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 mentioned above.

A weak alternating current, supplied from a generator at some distance from the instrument, passes through the test coil. The reaction between the field produced and the surrounding magnetic field subjects the test coil to a forced oscillation which vanishes only 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 small mirror on the test coil of an image of illuminated cross wires to a screen erected about 2 metres distant.

The adopted value of the factor  $F$  of the coil is  $F = 3.59643 (1.0000079t)$ ,  $t$  being temperature Celsius. The constants of the potentiometer in use during the year 1940 for the measurement of the current were verified at the National Physical Laboratory in 1939 February. The factor adopted for the conversion from international amperes to c.g.s. units was the same as for the Schuster-Smith coil (*See p. x*). The change on 1938 January 1, introduces a discontinuity of  $-3.9\gamma$  into the deduced values of  $Z$ .

*The Absolute Inclination Instrument.* An Earth Inductor by the Cambridge Instrument Company, 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 one second 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.

REDUCTION OF RESULTS - *Time* - The system of time used in the reductions is *Universal Time* (U.T.).

*Hourly Values.* The estimated mean ordinates of the photographic traces for each hour are measured from the base-line by the aid of an etched glass scale - the hour being the period of

## ABINGER MAGNETIC OBSERVATIONS, 1940.

sixty minutes commencing at the time named in the tables. From the tables of these measures are obtained the mean daily and mean monthly values for each hour of the day and the value of the elements for each day of the month.

*Base-lines.* Values of the base-lines are adopted from smooth curves drawn through points plotted upon charts, each point representing the mean of several independently observed values. Ten observations of declination, eight of horizontal intensity and six of vertical intensity are made, on an average, each week-day. Prior to 1929 the base-line values for vertical intensity traces were computed from absolute observations of inclination I, combined with simultaneous values of horizontal intensity H, taken from the magnetograms, in accordance with the relation  $Z = H \tan I$ . From 1929 January 1 the values have been obtained directly from observations of vertical intensity with the coil-magnetometer. The change introduces a discontinuity of  $30\gamma$  into the definitive values of vertical intensity, corresponding to  $0'9$  in inclination. The latter is to be attributed to hitherto unsuspected wear in the bearings of the Earth inductor which, at the time of its discovery, made the observed values of inclination too large by this amount.

*Temperature Corrections.* As the magnetograph chamber is maintained at a sensibly constant temperature and, moreover, the temperature compensation in the variometers themselves has been closely attained, in general no temperature corrections are required.

*K - Indices.* In conformity with a resolution passed at the Washington Assembly of the International Association of Terrestrial Magnetism and Electricity in 1939 September, the magnetic character of each day is estimated by means of three-hour-range indices, the index "K" for each three-hour period from  $0^h$  to  $24^h$  U.T. being assigned according to the principles described in an article published in *Terrestrial Magnetism and Atmospheric Electricity*, Vol.45, pp.411 *et seq* (December 1939).

The scale adopted for this purpose is constructed as follows:- The average quiet day variation during a particular three-hour period being reckoned as "0", any excess greater than  $5\gamma$  but less than  $10\gamma$  is reckoned as "1"; an excess between  $10\gamma$  and  $20\gamma$  as "2"; between  $20\gamma$  and  $40\gamma$  as "3"; between  $40\gamma$  and  $70\gamma$  as "4"; between  $70\gamma$  and  $120\gamma$  as "5"; between  $120\gamma$  and  $200\gamma$  as "6"; between  $200\gamma$  and  $330\gamma$  as "7"; between  $330\gamma$  and  $500\gamma$  as "8"; greater than  $500\gamma$  as "9".

The traces of all three elements are examined and the largest variation recorded in the interval is used to give the "K" index for that interval.

**THE TABLES.** Tables I to III contain respectively the hourly mean values of declination, horizontal intensity and vertical intensity.

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.

Table IVA contains, for each day of the year, the eight individual K-indices, arranged in succession, together with their sums. Corresponding figures for the years 1929-1939 are given in an Appendix to the Magnetic and Meteorological Results.

Tables V to VII contain the mean diurnal inequalities obtained from "all" days and from "quiet" and "disturbed" days as selected by the International Committee. In addition to monthly and annual values there are given values for the seasons, viz. Winter (January, February,

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November, December), Equinox (March, April, September, October) and Summer (May, June, July, August). The values in these tables are *not* adjusted for the effect of non-cyclic change.

The figures quoted for the north and west components and the inclination are computed from the corresponding inequalities in declination, horizontal intensity and vertical intensity, the computations being in general carried out to one significant figure beyond that printed. Extreme values are indicated in heavy type.

Tables VIII and IX contain the harmonic coefficients obtained from an analysis of the inequalities in the north (X), west (-Y) and vertical (Z) components. In the case of the International Quiet and Disturbed Days, the inequalities are adjusted for non-cyclic change before analysis, but in analysing the results for "All" days the non-cyclic change is ignored. The phase-angles in Table IX are corrected to refer to Abinger Local Mean Time.

Table X. In the annual volumes from 1926-1931 this table contains the range of the mean diurnal inequalities abstracted from the figures given in Table V to VII for the months, the year and the seasons. In 1932 a change was made which was inadvertently not noted at the time. Thenceforth the figures given for the *year and the seasons* are derived from Table X itself by meaning the values of the months constituting the particular group.

Table XI gives in similar arrangement the non-cyclic change  $24^{\text{h}}$  minus  $0^{\text{h}}$ . The quantities are computed from Table I to III, the value of  $0^{\text{h}}$  to  $24^{\text{h}}$  being taken as the mean of the last value on one day and the first value on the day following.

Table XII contains the mean monthly and annual values of the components collected together. In forming this table corrections are applied when necessary, to the values of H and Z 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 XVA contain the daily values of the base-lines of the magnetograms reduced from the absolute observations.

Table XVI. The first part of this table contains 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 from 1818 to 1820. The second part contains corresponding values determined at the Abinger Station since 1925.

REPRODUCTION OF MAGNETOGRAMS. A brief descriptive summary of the more significant movements recorded in the magnetic elements during the year is accompanied by reduced copies of the Abinger Magnetograms illustrating disturbances of special interest.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

GENERAL. With the year 1940 a century of routine meteorological observations at the Royal Observatory has been completed.

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

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referred to as "The Christie Enclosure") there are the barometer, 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; also the instrument for automatically recording pollution of the air.

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 celestial Pole; the general record of ordinary atmospheric changes of weather, including numerical estimation of the amount of cloud and estimations of "visibility"; registration and measurement of the pollution of the air by solid matter.

*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 inch in diameter, and the depression of the mercury due to capillary action is 0.002 inch, 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 inch, sub-divided by vernier to 0.002 inch.

The barometer 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 place 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. The moving mirror of the instrument is mounted horizontally, in a suitable frame, just above the pivots, and attached to the short lever. The first lever lies east and west, so that the axis about which the mirror turns is in the same direction. The recording drum

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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 electric lamp to a focus on the drum. A base-line mirror, similar to the moving mirror, is mounted in a vertical plane below the lower half of this lens. Provision is made for all the 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 inches on the sheet for 1 inch change of height of the standard barometer. (Near the surface of the mercury, both arms of the siphon tube 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 three daily readings of the standard 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  $9\frac{1}{2}$  inches wide, a range of over 3 inches barometric motion can be included and re-adjustment of position of the trace is unnecessary.

*Dry-bulb and Wet-bulb Thermometers.* On 1937 December 31 the standard dry-bulb and wet-bulb thermometers and maximum and minimum self-registering thermometers, both dry- and wet-bulb, were transferred from the revolving open screen on 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 old screen was subsequently erected in a new position on the north side of the Christie Enclosure, and daily readings, at  $9^h$ , of maximum and minimum temperature in the open screen were resumed from 1938 May 1.

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  $-0^{\circ}3$  has been applied to the readings of this thermometer.

The dry-bulb and wet-bulb thermometers are normally read at  $9^h$ ,  $12^h$  (noon),  $15^h$  every day and also once during the evening. Readings of the maximum and minimum thermometers are taken at  $9^h$ ,  $15^h$  and near  $21^h$  every day. It became necessary to discontinue evening readings from the middle of August on account of enemy action. 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.

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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, about 40 feet distant, 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.C.G.10220. The thermometer for radiation to the sky is a spirit minimum thermometer. Negretti and Zambra No.C.G.18256 replaced No.D.11197 when this was broken on September 9. The thermometers are laid on short grass, freely exposed to the sky.

*Earth Thermometers.* There are two thermometers 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.

*Osler Anemometer.* This self-registering instrument, devised for continuous registration of the direction and pressure of the wind together with 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 (9 ft. 2 in. in length), connected by shaft and pinion with a rack-work carrying a pencil; the latter marks on a flat sheet of paper, moving horizontally. 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 near 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 strong 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 approximately 15 millimetres to the hour. The instrument was brought into use as long ago as 1840.

*Robinson 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 also changed daily at noon.

The velocity recorded by the instrument is three times the actual velocity  $v$  of the cups.

From tests made by W. H. Dines at Hersham in 1889 on his 'whirling machine' it appeared that the relation between the velocity of the wind,  $V$  and the velocity of the cups  $v$  is approximately

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represented by the expression  $V = 4.0 + 2.0v$  and that the instrument fails to record wind velocities less than 4 miles per hour. This relationship is used to modify the velocity recorded by the instrument. For the period between December 6 and 22 the anemometer was out of action while damage which occurred during a gale on December 6 was being repaired. The measures in the interval were obtained from eye-readings of a Browning anemometer mounted on the same platform.

*Rain Gauges.* During the year 1940 three rain gauges were employed. 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 is fixed about 4 feet north of the standard gauge No.6 which is read daily at 9<sup>h</sup>, and 15<sup>h</sup> and in the evening. No.8 is used as a check on the readings of No.6 and is normally read at 9<sup>h</sup> only. The gauges are also read at midnight on the last day of each calendar month.

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 118 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 in 1926 and found to be in satisfactory condition. It 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 four selected sunshine cards from each of the months January, July and September 1940 have been made at the Meteorological Office. These showed satisfactory 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 until November 18, on a brick pier in the courtyard to the north of the Transit Pavilion, and permanently directed towards the celestial pole. On November 18 the site was changed to one about 20 yards south of the Altazimuth building.

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 hard driven from the north. The photographic plates used are ordinary quarter-plate (3½ by 4½ inches). Exposure is intended to be made during the period that the sun remains more than 10° below the horizon. The period is thus centred approximately on 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 δ Ursæ 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

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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.

ARRANGEMENT OF RESULTS. The results given in the Meteorological Section refer to the day commencing at 0<sup>h</sup> U.T., excepting the case of the night-sky record, for which they relate to the period from 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 instruments.

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°. The monthly mean barometer reading is, however, corrected for the effect of the change of site of 1917 April before deducing the deviation from the mean of sixty-five years 1841-1905 (pp. D 86-108). 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 each month (pp. D 113 and D 114) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pp. D 112 and D 113).

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 obtained by smoothing the accidental irregularities of the daily means derived from the observations for 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, also in the Introduction to *Results for 1910*.

In the case of maximum and minimum temperature the average of sixty-five years has been corrected for the presumed effect of the change of thermometer screen which took place on 1938

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January 1. The corrections are given below. They were derived from comparisons between readings on 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°5	+0°6	+0°6	+0°6	+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 p.xvii). The continuous record of the Osler 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 also gives in cases in which rain fell both before and after midnight, 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 111 and D 118 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 0°005 inch.

It may be understood, generally, that the greatest wind pressures usually occur in gusts of short duration. In the "Mean of 24 Hourly Measures" each measure represents the mean hourly value centred at the nominal hour. With regard to "Proportions of wind referred to the cardinal points" in the monthly summary on pages D 86-109, 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 amount of cloud given in the footnotes on the right-hand pages D 87 to D 109, and in the abstract table, page D 111, is the mean found from observations made at 9<sup>h</sup>, 12<sup>h</sup> (noon) 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 symbols 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 (\*)

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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>Cunb</i>	Cumulo-nimbus	<i>Fr</i>	Fracto-
<i>Cicu</i>	Cirro-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

1940

## MAGNETIC OBSERVATIONS. ABINGER 1940.

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

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>																									
	10° + Tabular Quantities																								
1	47° 1 46° 7 46° 9 44° 5 45° 1 45° 4	45° 4 45° 7 46° 1 47° 7 49° 3 49° 3	50° 4 50° 0 50° 3 50° 0 48° 3 48° 1	48° 3 47° 2 45° 0 44° 9 46° 1 45° 7																					
2	43° 1 45° 7 42° 5 41° 5 43° 8 45° 3	49° 1 49° 7 50° 4 50° 6 50° 2 50° 3	52° 2 53° 5 52° 7 50° 0 48° 6 47° 6	47° 2 46° 7 46° 7 45° 5 47° 2 41° 9																					
3 **	44° 7 45° 2 45° 4 45° 0 43° 7 47° 8	50° 9 52° 3 52° 8 52° 8 52° 3 53° 0	53° 8 53° 8 54° 5 55° 4 68° 2 57° 2	48° 0 48° 1 41° 4 42° 7 45° 7 45° 4																					
4	45° 2 46° 1 46° 3 47° 4 47° 4 47° 7	47° 4 47° 3 47° 4 47° 8 48° 6 51° 1	51° 1 50° 2 50° 2 40° 7 48° 6 50° 9	50° 4 48° 5 43° 1 43° 5 46° 8 47° 2																					
5	47° 7 47° 6 46° 8 45° 2 48° 5 46° 5	47° 1 46° 4 46° 6 47° 1 47° 8 49° 4	50° 0 49° 2 48° 8 48° 6 48° 0 47° 9	47° 6 47° 1 46° 9 45° 0 45° 9 42° 2																					
6	44° 9 45° 4 47° 0 44° 5 45° 9 44° 4	46° 8 47° 0 47° 0 47° 3 48° 4 48° 4	52° 2 51° 9 50° 3 49° 7 44° 2 47° 6	41° 5 41° 4 45° 7 45° 4 44° 0 45° 1																					
7	45° 2 48° 4 46° 9 47° 3 48° 0 48° 1	47° 8 47° 3 46° 8 47° 7 48° 4 49° 1	49° 2 50° 4 46° 2 48° 4 48° 4 47° 4	41° 4 44° 5 45° 9 39° 7 41° 9 44° 4																					
8	46° 3 48° 7 48° 3 49° 2 49° 5 46° 8	48° 0 46° 8 46° 9 47° 1 47° 4 48° 4	49° 0 48° 5 47° 8 47° 6 47° 8 48° 4	47° 8 46° 4 47° 0 45° 9 44° 0 46° 4																					
9	46° 8 47° 4 47° 4 47° 6 47° 7 47° 4	47° 2 46° 4 46° 2 46° 9 47° 7 48° 3	49° 8 49° 4 48° 4 48° 8 44° 5 47° 2	48° 4 38° 6 45° 3 45° 1 45° 4 46° 8																					
10 **	48° 6 47° 7 46° 8 46° 2 47° 5 46° 8	46° 9 46° 9 47° 2 47° 9 48° 9 50° 2	51° 4 52° 5 54° 6 49° 1 50° 8 43° 7	46° 8 48° 8 40° 1 43° 3 43° 1 44° 4																					
11 **	46° 7 46° 5 46° 5 45° 4 47° 4 47° 7	46° 4 47° 9 48° 0 47° 8 47° 9 48° 5	49° 8 49° 4 47° 1 48° 3 49° 7 49° 0	50° 1 39° 3 35° 0 42° 0 45° 4 43° 8																					
12	41° 3 39° 4 42° 0 45° 1 45° 7 45° 4	47° 4 46° 8 49° 9 49° 6 48° 7 49° 7	50° 3 47° 8 49° 7 49° 4 45° 8 49° 9	45° 6 45° 7 43° 8 40° 0 43° 4 45° 8																					
13	46° 0 45° 5 46° 1 46° 4 45° 0 45° 4	45° 7 45° 4 46° 0 47° 4 48° 7 50° 0	51° 0 49° 7 47° 8 47° 0 47° 1 47° 8	47° 8 46° 5 46° 6 46° 4 45° 9 45° 9																					
14 *	45° 9 46° 3 46° 7 46° 9 47° 3 47° 0	46° 6 45° 9 45° 9 46° 7 47° 8 48° 8	49° 3 49° 7 48° 3 48° 2 48° 3 47° 9	47° 3 47° 1 45° 9 45° 1 44° 8 44° 9																					
15	41° 3 39° 0 40° 6 44° 1 46° 2 46° 3	46° 5 46° 3 45° 8 46° 7 48° 6 50° 6	51° 9 51° 5 50° 3 49° 0 48° 3 48° 3	47° 9 47° 6 46° 8 46° 9 46° 9 46° 7																					
16	46° 1 44° 7 44° 3 44° 3 46° 2 46° 8	47° 0 48° 9 49° 3 50° 2 49° 7 49° 8	52° 8 52° 2 50° 1 48° 2 48° 6 45° 9	39° 1 44° 0 45° 6 45° 3 43° 0 45° 5																					
17	46° 8 47° 3 45° 5 45° 4 46° 7 47° 3	49° 4 48° 9 46° 6 47° 2 48° 1 51° 7	53° 6 52° 7 52° 8 48° 9 48° 5 48° 0	46° 3 42° 9 41° 0 44° 7 43° 3 42° 3																					
18 **	44° 9 46° 3 45° 7 47° 3 47° 7 47° 7	48° 3 47° 3 46° 6 46° 5 49° 7 51° 7	53° 5 54° 7 51° 7 47° 2 43° 8 43° 2	22° 9 39° 7 41° 9 46° 7 47° 3 47° 4																					
19	47° 0 46° 8 47° 0 46° 3 46° 0 45° 8	45° 6 45° 6 46° 4 46° 7 47° 8 49° 2	49° 7 48° 7 46° 8 47° 3 48° 2 47° 6	46° 2 46° 2 46° 1 45° 9 46° 3 46° 8																					
20	46° 4 46° 2 46° 7 46° 8 46° 5 46° 2	45° 8 45° 6 45° 8 46° 7 48° 6 49° 5	50° 1 49° 3 47° 7 47° 2 47° 6 47° 4	44° 7 41° 4 45° 8 46° 4 45° 6 46° 7																					
21 *	47° 0 47° 0 47° 1 47° 0 46° 7 46° 4	46° 0 45° 1 45° 1 46° 1 46° 1 47° 4 48° 6	48° 8 47° 9 47° 1 46° 6 47° 1 46° 4	46° 2 46° 6 46° 4 45° 6 46° 7 46° 8																					
22	47° 1 47° 3 47° 4 47° 3 46° 8 47° 1	46° 1 45° 1 45° 3 46° 5 46° 2 47° 0	51° 6 51° 4 49° 8 49° 9 48° 6 48° 3	45° 1 46° 5 45° 2 46° 8 47° 4 48° 0																					
23	47° 9 47° 6 47° 5 47° 2 47° 4 47° 0	46° 5 46° 0 45° 7 46° 3 46° 8 49° 6	50° 6 50° 8 49° 4 49° 0 48° 5 48° 5	47° 8 48° 5 46° 0 44° 9 45° 0 45° 1																					
24	45° 3 44° 6 42° 5 40° 9 43° 6 44° 8	44° 9 44° 8 45° 3 46° 3 47° 4 49° 2	51° 4 52° 6 51° 8 52° 0 52° 1 52° 0	48° 7 48° 5 40° 7 45° 4 45° 5 45° 6																					
25	45° 9 44° 7 46° 6 42° 0 43° 6 45° 0	45° 4 44° 8 44° 6 45° 2 46° 2 46° 8	51° 1 53° 9 52° 6 49° 4 48° 6 47° 9	46° 7 46° 0 45° 8 44° 0 44° 2 46° 4																					
26 *	46° 5 46° 6 46° 5 46° 5 46° 4 46° 0	45° 8 45° 0 45° 0 46° 0 46° 7 46° 8	50° 1 50° 4 49° 0 47° 6 47° 4 47° 1	46° 9 47° 1 47° 0 46° 3 45° 4 45° 4																					
27 *	45° 9 47° 1 47° 3 46° 9 46° 2 46° 1	47° 5 45° 7 45° 5 46° 1 47° 0 48° 8	49° 9 50° 6 50° 1 48° 7 48° 2 48° 0	47° 4 46° 8 46° 4 45° 8 45° 7 45° 8																					
28 *	45° 7 46° 8 47° 2 46° 7 47° 0 46° 8	46° 1 45° 4 45° 5 46° 7 46° 7 48° 6	50° 1 50° 2 49° 1 47° 6 47° 8 47° 7	48° 0 47° 6 47° 1 46° 5 45° 6 45° 2																					
29	46° 1 45° 6 45° 3 46° 1 44° 8 45° 1	45° 1 45° 0 44° 8 46° 2 48° 0 49° 9	51° 1 51° 7 52° 8 55° 6 58° 4 60° 7	54° 6 48° 1 46° 8 47° 0 46° 1 43° 9																					
30	43° 1 42° 1 38° 5 42° 2 44° 6 45° 3	45° 7 45° 6 45° 6 45° 6 46° 7 48° 8	52° 6 51° 5 50° 9 50° 3 46° 1 48° 1	48° 6 47° 0 45° 7 44° 4 45° 0 44° 4																					
31 **	46° 1 45° 2 47° 1 47° 7 48° 0 49° 1	49° 1 49° 1 47° 1 48° 1 49° 4 50° 5	52° 5 53° 7 50° 8 49° 1 47° 7 43° 1	42° 1 43° 1 38° 4 42° 4 44° 2 39° 7																					
Mean	45° 8 45° 9 45° 8 45° 8 46° 3 46° 5	46° 9 46° 7 46° 7 47° 4 48° 5 49° 7	51° 0 51° 0 50° 0 48° 9 48° 8 48° 4	46° 1 45° 6 44° 6 44° 9 45° 3 45° 2																					
Mean *	46° 2 46° 8 47° 0 46° 8 46° 7 46° 5	46° 4 45° 4 45° 4 46° 3 47° 6 48° 8	49° 6 49° 8 48° 7 47° 7 47° 8 47° 4	47° 2 47° 0 46° 6 46° 0 45° 6 45° 6																					
Mean **	46° 2 46° 2 46° 3 46° 7 46° 9 47° 8	48° 3 48° 7 48° 3 48° 6 49° 6 50° 8	52° 2 52° 8 51° 7 49° 8 52° 0 47° 2	42° 0 43° 8 39° 4 43° 4 45° 1 44° 1																					
<b>February</b>																									
1 **	36° 1 38° 6 43° 1 45° 2 47° 4 48° 0	47° 9 48° 7 48° 0 48° 1 49° 4 51° 3	51° 1 51° 3 50° 4 48° 1 49° 2 37° 1	42° 5 44° 6 42° 4 42° 1 41° 5 48° 1																					
2 **	48° 8 46° 5 45° 8 47° 1 47° 6 47° 4	47° 5 47° 1 48° 0 47° 7 47° 2 49° 9	50° 2 49° 9 50° 4 47° 7 49° 5 47° 6	40° 6 40° 4 45° 1 44° 5 44° 8 46° 7																					
3 **	47° 9 46° 1 46° 1 45° 7 46° 5 46° 7	46° 5 46° 1 46° 1 48° 1 49° 8 49° 6	50° 9 48° 3 48° 6 49° 2 46° 3 37° 3	45° 9 47° 1 46° 3 41° 7 42° 1 45° 1																					
4	46° 1 46° 4 46° 7 46° 5 46° 2 46° 2	45° 9 45° 4 44° 6 45° 1 46° 4 48° 5	49° 1 48° 6 47° 3 45° 7 46° 2 47° 7	48° 5 50° 2 50° 0 48° 7 47° 8 48° 9																					
5	46° 6 47° 1 46° 5 46° 1 46° 5 46° 6	46° 4 46° 4 46° 4 46° 9 47° 5 48° 9	49° 7 49° 7 48° 4 48° 0 48° 6 47° 6	50° 6 49° 7 48° 9 48° 6 49° 7 50° 1																					
6	44° 3 45° 5 46° 0 45° 3 46° 1 45° 7	45° 6 45° 9 47° 7 47° 7 48° 5 50° 8	50° 6 49° 7 48° 9 48° 6 49° 7 50° 1	48° 5 49° 7 42° 0 43° 5 44° 0 44° 5																					
7	43° 3 47° 3 44° 6 45° 5 45° 5 46° 0	46° 1 45° 6 45° 2 45° 1 47° 2 48° 5	49° 5 50° 2 50° 0 48° 7 47° 8 48° 9	48° 2 47° 6 46° 4 45° 3 43° 1 43° 8																					
8	46° 2 47° 2 46° 2 45° 6 45° 6 46° 1	45° 9 46° 1 45° 3 45° 7																							

\* International Quiet Day. \*\* International Disturbed Day.

## MAGNETIC OBSERVATIONS. ABINGER 1940.

D 3

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

\* International Quiet Day. \*\* International Disturbed Day. † March 24 and 25 omitted.

## MAGNETIC OBSERVATIONS, ABINGER 1940.

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

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>	
May	10° + Tabular Quantities																									
1	40° 1 40° 7 42° 1 41° 4 40° 5 39° 0	36° 8 36° 5 37° 7 39° 9 43° 4 47° 9	50° 5 51° 2 49° 5 47° 3 45° 7 45° 1	44° 7 42° 0 43° 2 44° 7 44° 3 43° 1																						
2	42° 1 41° 2 41° 1 39° 9 38° 9 40° 1	38° 7 39° 1 39° 6 41° 4 44° 4 48° 6	51° 2 52° 5 50° 6 49° 6 47° 0 44° 5	44° 2 44° 4 44° 5 44° 5 44° 3 44° 2																						
3 *	44° 2 43° 9 43° 4 44° 4 42° 3 41° 7	39° 6 39° 1 41° 1 43° 4 46° 0 48° 6	49° 7 49° 7 48° 8 47° 3 46° 3 45° 1	44° 5 44° 2 44° 6 44° 4 44° 4 43° 3																						
4 *	45° 4 43° 4 42° 3 43° 3 41° 4 39° 5	37° 9 38° 4 38° 8 41° 8 45° 1 48° 2	49° 6 48° 8 47° 9 46° 9 45° 6 44° 5	43° 6 43° 6 44° 5 45° 1 45° 1 44° 2																						
5	43° 8 43° 7 43° 3 42° 9 41° 4 40° 5	39° 2 38° 7 38° 6 41° 3 44° 7 47° 9	49° 8 49° 7 48° 5 47° 0 46° 0 44° 7	45° 1 44° 8 43° 4 43° 7 44° 5 44° 5																						
6 *	44° 2 43° 9 43° 4 43° 4 42° 8 41° 9	41° 3 40° 9 9 41° 2 43° 1 46° 0 50° 4	53° 3 52° 6 50° 6 48° 8 46° 9 45° 7	45° 0 45° 1 45° 1 44° 9 45° 0 45° 1																						
7	44° 9 43° 6 42° 7 42° 8 41° 8 40° 5	39° 7 38° 8 41° 4 43° 3 45° 6 47° 7	49° 7 50° 2 48° 6 48° 6 46° 8 45° 7	45° 1 44° 4 44° 2 43° 8 44° 4 43° 9																						
8	42° 8 42° 7 41° 5 42° 2 40° 1 39° 6	38° 8 38° 5 39° 2 41° 8 45° 2 48° 8	51° 2 51° 5 50° 1 49° 1 47° 9 46° 3	45° 2 45° 1 45° 1 44° 3 44° 2 45° 1																						
9	45° 1 44° 7 42° 3 41° 8 43° 2 40° 7	39° 5 39° 0 39° 6 41° 9 44° 5 48° 1	51° 5 53° 4 51° 9 48° 8 48° 6 47° 3	46° 2 45° 0 43° 4 45° 7 45° 6 45° 0																						
10	45° 1 44° 2 43° 5 42° 6 40° 6 38° 9	39° 9 40° 4 40° 4 43° 3 45° 8 50° 3	52° 7 51° 5 49° 1 48° 9 48° 5 46° 0	43° 2 43° 3 39° 9 36° 5 40° 5 41° 4																						
11	41° 1 39° 7 42° 9 40° 1 40° 3 41° 5	40° 7 40° 0 40° 0 42° 1 46° 5 49° 4	52° 6 52° 0 50° 4 49° 2 47° 4 46° 1	45° 6 44° 6 40° 6 42° 9 44° 2 44° 6																						
12	43° 0 42° 7 40° 6 42° 6 43° 9 42° 4	42° 3 43° 4 39° 7 39° 6 43° 5 45° 2	48° 0 51° 3 50° 7 48° 1 45° 8 46° 4	44° 7 41° 1 43° 5 45° 2 43° 7 38° 1																						
13	39° 2 40° 3 40° 1 41° 2 41° 1 41° 1	38° 9 37° 7 38° 1 40° 0 42° 6 46° 5	49° 3 51° 7 51° 2 49° 0 48° 5 48° 1	46° 5 44° 7 43° 1 39° 4 39° 4 39° 4																						
14	38° 2 37° 9 39° 2 40° 4 40° 8 38° 1	38° 4 39° 2 40° 0 42° 6 45° 3 49° 4	51° 1 50° 8 48° 9 47° 4 45° 9 46° 2	46° 2 45° 7 43° 5 44° 7 46° 2 43° 6																						
15	43° 5 43° 5 43° 1 44° 9 43° 2 40° 6	38° 9 40° 8 43° 8 45° 1 46° 7 48° 4	49° 4 48° 1 48° 9 44° 7 45° 7 46° 2	44° 8 41° 6 39° 8 42° 4 43° 5 38° 7																						
16	38° 4 37° 1 39° 1 39° 8 38° 8 38° 4	38° 7 39° 5 40° 6 43° 1 45° 4 46° 9	47° 7 47° 1 46° 9 46° 3 45° 4 44° 9	44° 6 43° 3 43° 5 45° 1 45° 4 44° 6																						
17	45° 2 43° 3 41° 6 41° 7 39° 4 38° 7	38° 6 39° 4 41° 8 44° 1 46° 9 49° 1	49° 1 49° 5 48° 8 47° 8 46° 2 45° 6	45° 4 39° 9 42° 6 43° 7 42° 5 41° 3																						
18 **	42° 5 43° 3 37° 1 33° 9 35° 0 37° 1	38° 4 35° 3 38° 5 46° 3 44° 2 48° 8	51° 5 51° 2 48° 5 48° 6 46° 3 42° 8	41° 2 41° 2 42° 3 43° 3 43° 9 44° 5																						
19	43° 6 44° 9 42° 6 41° 7 40° 8 39° 1	38° 0 38° 6 40° 4 39° 9 41° 9 45° 9	49° 2 50° 5 49° 1 48° 1 46° 6 45° 4	43° 7 43° 7 43° 6 43° 7 43° 2 43° 7																						
20	43° 6 44° 0 43° 0 42° 5 42° 6 42° 1	39° 1 38° 3 39° 0 41° 2 43° 3 46° 7	49° 5 50° 9 51° 6 49° 4 48° 1 44° 4	44° 0 44° 4 44° 6 44° 2 44° 1 43° 8																						
21	43° 9 43° 5 43° 8 45° 3 43° 2 38° 9	38° 9 38° 3 38° 8 41° 2 44° 9 48° 3	49° 4 50° 3 50° 0 48° 5 46° 5 44° 4	43° 7 43° 5 41° 7 43° 5 44° 6 44° 4																						
22 **	43° 9 45° 6 43° 5 45° 3 49° 5 48° 4	37° 4 42° 2 40° 1 41° 6 44° 5 50° 1	49° 5 50° 8 51° 0 48° 5 45° 9 42° 1	42° 5 43° 5 44° 4 44° 4 44° 9 44° 0																						
23 **	44° 3 44° 4 43° 5 44° 0 42° 5 39° 0	37° 8 37° 5 39° 0 41° 2 44° 4 47° 8	50° 9 51° 9 51° 2 48° 8 46° 8 45° 1	45° 9 46° 2 35° 7 41° 8 41° 6 41° 6																						
24 **	42° 5 42° 0 41° 1 42° 6 48° 2 42° 0	37° 2 33° 4 36° 1 40° 3 49° 1 50° 7	53° 4 56° 0 53° 5 53° 2 49° 0 47° 8	47° 5 46° 1 39° 8 39° 1 41° 2 42° 6																						
25	41° 6 42° 7 44° 4 43° 3 40° 3 38° 4	36° 9 36° 8 38° 4 40° 7 43° 5 47° 1	48° 7 49° 2 49° 6 48° 5 47° 5 43° 5	45° 1 44° 5 41° 0 44° 0 44° 2 44° 0																						
26 **	43° 6 43° 8 43° 8 41° 3 39° 8 42° 7	42° 0 43° 2 42° 6 44° 3 46° 3 47° 3	47° 8 46° 6 46° 2 44° 7 46° 2 46° 2	40° 7 43° 6 41° 8 39° 7 37° 6 37° 2																						
27	34° 7 35° 5 34° 1 36° 6 36° 5 37° 7	38° 6 39° 2 40° 6 44° 1 46° 0 48° 1	48° 9 50° 4 49° 8 48° 2 46° 7 46° 2	45° 3 46° 2 46° 2 45° 3 41° 7 45° 1																						
28	40° 3 39° 2 39° 0 41° 6 41° 2 37° 3	37° 6 39° 7 37° 8 40° 0 43° 2 47° 5	49° 0 49° 7 51° 0 50° 3 49° 2 46° 5	44° 7 44° 1 44° 1 44° 1 43° 8 43° 6 43° 8																						
29	43° 5 43° 3 41° 1 40° 8 40° 0 39° 1	37° 7 37° 3 39° 1 41° 2 43° 0 46° 7	49° 2 49° 2 49° 6 49° 1 48° 3 47° 4	46° 4 44° 5 42° 7 43° 5 43° 6 43° 1																						
30 *	43° 1 42° 9 42° 0 41° 8 40° 6 38° 7	37° 4 36° 8 38° 2 41° 0 43° 6 46° 2	47° 8 49° 1 49° 0 49° 7 43° 5 44° 9	45° 9 45° 0 44° 3 42° 8 43° 7 43° 6																						
31 *	43° 0 43° 0 41° 7 41° 1 40° 5 40° 2	39° 4 39° 0 40° 0 41° 5 44° 0 46° 9	48° 3 48° 6 48° 1 47° 5 47° 4 46° 3	45° 8 45° 5 44° 9 45° 0 44° 3 43° 8																						
Mean	42° 5 42° 4 41° 7 41° 9 41° 3 40° 1	39° 1 38° 9 39° 7 42° 0 44° 9 48° 0	50° 0 50° 5 49° 7 48° 3 47° 0 45° 6	44° 7 44° 0 43° 0 43° 4 43° 5 43° 1																						
Mean *	43° 6 43° 4 42° 6 42° 8 41° 5 40° 4	39° 1 38° 8 39° 9 42° 2 44° 9 48° 1	49° 7 49° 8 48° 9 47° 7 46° 7 45° 7	45° 0 44° 7 44° 7 44° 4 44° 5 44° 0																						
Mean **	43° 4 43° 8 41° 8 41° 4 43° 0 41° 8	40° 0 38° 3 39° 3 42° 7 46° 1 48° 9	50° 6 51° 3 50° 1 48° 8 46° 8 44° 8	43° 6 44° 1 40° 8 41° 7 41° 8 42° 0																						
June	10° + Tabular Quantities																									

## MAGNETIC OBSERVATIONS, ABINGER 1940.

D 5

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

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>	
July	10° + Tabular Quantities																									
1	43° 3	43° 4	45° 3	38° 7	37° 9	36° 3	35° 8	35° 8	36° 6	38° 3	41° 0	44° 2	46° 3	47° 8	48° 2	46° 6	45° 2	43° 9	43° 6	43° 9	43° 3	43° 1	43° 0	42° 8		
2 *	42° 8	42° 6	42° 3	41° 2	40° 2	38° 2	37° 4	37° 2	38° 3	41° 2	44° 3	47° 4	48° 1	48° 0	47° 2	45° 9	44° 9	44° 7	44° 5	42° 9	42° 9	44° 3	44° 7	43° 9		
3	43° 1	42° 5	40° 7	38° 2	37° 0	36° 6	37° 9	38° 6	37° 9	38° 7	41° 1	45° 5	48° 3	49° 2	49° 2	47° 9	47° 8	47° 3	45° 3	40° 0	40° 0	40° 8	42° 4	42° 1	36° 3	
4 **	34° 7	38° 3	37° 9	36° 6	36° 7	36° 9	35° 7	36° 8	36° 5	39° 3	42° 6	47° 3	49° 7	49° 7	48° 6	47° 7	45° 9	45° 3	43° 7	42° 0	41° 8	39° 6	37° 6	36° 7		
5	36° 8	38° 2	40° 4	39° 7	38° 7	37° 8	36° 7	35° 3	35° 1	38° 9	43° 4	46° 3	49° 2	50° 3	50° 3	49° 3	45° 8	44° 3	42° 8	40° 9	42° 6	40° 0	40° 6	40° 6		
6	40° 1	38° 7	38° 7	40° 3	38° 3	36° 1	35° 3	35° 3	36° 1	38° 5	41° 9	46° 2	48° 3	49° 8	51° 1	49° 5	47° 3	43° 9	43° 0	42° 5	39° 8	42° 6	42° 3	42° 6		
7	43° 9	42° 3	41° 2	41° 2	39° 8	37° 3	36° 6	36° 8	38° 3	39° 4	40° 8	42° 7	46° 4	49° 1	48° 8	47° 4	45° 3	43° 9	43° 9	42° 8	43° 2	43° 3	43° 1	43° 4		
8	42° 4	42° 0	42° 7	42° 3	39° 8	37° 9	37° 1	36° 9	37° 3	38° 2	40° 8	44° 2	46° 3	50° 2	50° 3	50° 3	49° 2	47° 4	45° 8	45° 8	44° 3	43° 7	43° 4	43° 3	44° 4	
9	43° 4	42° 3	42° 8	45° 3	41° 3	38° 4	37° 3	38° 3	39° 7	41° 3	43° 2	45° 0	46° 7	49° 4	51° 4	50° 5	49° 9	47° 8	46° 2	45° 4	44° 8	42° 9	42° 6	40° 4		
10 **	42° 3	44° 9	43° 4	43° 3	43° 1	44° 3	42° 3	40° 7	39° 9	39° 9	41° 3	44° 0	46° 7	48° 6	49° 6	49° 4	46° 9	45° 0	42° 8	44° 2	44° 2	43° 4	39° 3	41° 3		
11	41° 3	41° 3	39° 5	41° 7	45° 3	39° 8	36° 4	35° 3	36° 8	37° 4	39° 3	43° 1	47° 3	49° 3	50° 0	48° 6	46° 8	44° 4	42° 9	42° 8	41° 6	42° 4	43° 4	42° 7		
12	42° 2	41° 8	42° 9	41° 8	41° 1	39° 8	38° 9	38° 9	38° 3	39° 3	41° 5	45° 3	45° 7	47° 8	48° 6	47° 4	45° 4	44° 8	43° 4	42° 3	42° 8	43° 3	43° 1			
13 **	43° 2	42° 5	42° 8	40° 8	39° 0	38° 8	40° 2	39° 4	38° 9	40° 2	44° 8	46° 3	52° 4	54° 7	53° 6	49° 7	46° 8	41° 4	37° 3	40° 5	43° 9	44° 3	43° 3	42° 9		
14 **	43° 0	43° 7	41° 5	45° 0	41° 1	40° 1	38° 9	36° 9	36° 5	39° 0	40° 8	42° 8	46° 6	47° 4	49° 8	48° 3	47° 6	45° 0	42° 3	42° 8	42° 6	43° 4	43° 0	42° 0	42° 3	
15	41° 9	42° 7	42° 2	37° 1	40° 1	38° 3	35° 9	36° 8	35° 9	39° 4	43° 6	46° 7	48° 2	49° 2	47° 9	45° 8	43° 7	43° 3	42° 1	41° 8	42° 3	41° 9	41° 4	42° 4		
16	43° 2	43° 8	42° 9	43° 3	40° 3	38° 3	36° 5	36° 5	37° 3	39° 8	42° 3	46° 0	48° 9	49° 9	49° 7	47° 2	44° 9	43° 3	42° 3	43° 0	42° 9	42° 7	41° 5	41° 9		
17 *	42° 4	43° 3	43° 1	40° 4	38° 9	38° 5	38° 1	37° 3	36° 9	37° 0	38° 2	41° 6	44° 4	45° 9	49° 6	35° 3	45° 4	43° 0	42° 5	42° 5	43° 0	42° 8	42° 8	42° 9		
18 *	42° 8	42° 3	42° 0	41° 2	41° 2	38° 2	37° 3	37° 1	37° 5	39° 4	42° 9	46° 3	48° 9	48° 8	48° 3	48° 6	44° 4	44° 8	44° 1	43° 7	43° 3	43° 6	43° 3	41° 8		
19	42° 0	41° 4	41° 3	41° 7	39° 7	37° 2	35° 9	35° 3	35° 9	38° 3	41° 4	45° 0	48° 3	49° 7	49° 7	47° 7	45° 9	43° 9	43° 9	44° 2	42° 7	42° 0	41° 7	41° 7		
20 *	41° 9	41° 8	41° 3	40° 7	39° 4	38° 3	37° 3	37° 7	38° 5	39° 3	41° 5	44° 3	47° 1	49° 9	50° 5	49° 3	47° 3	45° 3	44° 3	43° 7	43° 9	43° 3	42° 8	41° 7		
21	41° 3	41° 3	40° 2	40° 3	39° 3	37° 3	37° 3	37° 1	37° 2	38° 5	41° 1	44° 3	45° 7	47° 8	49° 7	49° 7	48° 3	45° 3	45° 3	43° 3	42° 3	41° 2	39° 8	40° 3		
22	41° 3	41° 2	40° 1	41° 2	41° 2	38° 3	37° 9	37° 9	37° 2	38° 2	41° 0	39° 9	42° 5	46° 8	47° 1	50° 3	48° 3	45° 2	44° 3	43° 2	43° 2	43° 3	42° 4	41° 1		
23	41° 2	39° 7	39° 7	39° 6	38° 2	38° 0	37° 0	36° 3	36° 3	37° 3	39° 2	41° 0	44° 9	47° 4	47° 4	45° 6	44° 3	43° 6	43° 6	41° 4	42° 0	42° 0	41° 9	40° 4		
24	40° 3	40° 7	39° 7	41° 3	41° 3	44° 5	43° 3	40° 3	40° 3	38° 0	40° 0	41° 4	44° 6	46° 4	46° 4	45° 6	44° 3	43° 6	43° 6	42° 3	42° 0	42° 5	40° 7	40° 7		
25	38° 4	36° 7	37° 8	41° 0	39° 8	39° 5	38° 8	38° 8	38° 8	39° 7	37° 7	37° 5	38° 9	38° 9	38° 9	37° 5	37° 5	37° 5	44° 2	42° 7	42° 5	42° 3	41° 9	41° 7		
26	43° 1	40° 6	40° 7	41° 1	40° 4	38° 0	36° 4	36° 4	35° 9	37° 4	39° 7	42° 0	44° 4	44° 4	44° 7	44° 2	44° 7	44° 7	44° 5	43° 5	43° 2	42° 9	42° 3	41° 0		
27 *	40° 8	40° 4	40° 4	40° 3	39° 7	38° 5	37° 8	37° 4	37° 8	38° 9	41° 3	44° 0	46° 1	48° 1	48° 1	47° 2	45° 7	45° 4	45° 7	44° 8	44° 3	44° 2	43° 8	43° 0		
28	42° 0	41° 3	41° 1	41° 1	41° 1	39° 8	38° 4	37° 3	36° 9	38° 8	42° 8	45° 8	47° 3	48° 3	48° 4	48° 4	47° 4	45° 8	45° 8	43° 3	43° 7	43° 1	41° 5	41° 5		
29	41° 3	41° 3	41° 3	40° 7	40° 0	38° 4	35° 9	35° 9	35° 5	37° 3	39° 9	43° 5	46° 7	48° 4	48° 2	48° 0	47° 0	45° 4	45° 4	43° 9	44° 4	41° 4	39° 5	42° 3		
30 **	40° 0	39° 0	37° 9	37° 4	35° 9	35° 3	36° 3	36° 3	36° 5	36° 5	38° 4	40° 6	44° 6	45° 0	50° 3	51° 4	52° 3	50° 3	48° 4	48° 7	45° 4	45° 4	40° 8	41° 5	41° 4	
31	42° 0	44° 4	43° 8	39° 1	37° 0	37° 5	38° 0	37° 9	37° 1	37° 9	40° 7	44° 7	48° 7	47° 4	45° 5	45° 2	42° 8	42° 8	42° 4	42° 7	42° 3	41° 6	41° 6	40° 3		
Mean	41° 6	41° 5	41° 2	40° 8	39° 8	38° 4	37° 4	37° 3	37° 4	38° 9	41° 4	44° 6	47° 4	48° 9	49° 2	48° 1	46° 5	44° 8	43° 7	43° 7	42° 9	42° 6	42° 5	42° 2	41° 6	
Mean *	42° 1	42° 1	41° 8	40° 8	39° 7	38° 3	37° 6	37° 6	37° 8	39° 2	41° 6	44° 7	46° 9	48° 2	48° 4	47° 3	45° 6	44° 6	44° 6	44° 2	43° 5	43° 5	43° 5	42° 7		
Mean **	40° 6	41° 7	40° 7	40° 6	39° 2	39° 2	38° 7	38° 7	38° 7	39° 5	42° 0	45° 2	49° 1	50° 1	50° 4	49° 4	48° 5	47° 2	45° 1	44° 2	42° 4	42° 4	40° 9	40° 9		

August	10° + Tabular Quantities																								
1	42° 7	46° 4	42° 0	37° 2	37° 1	36° 1	35° 7	35° 6	37° 4	39° 2	42° 6	46° 9	50° 0	50° 2	48° 9	47° 0	44° 9	43° 4	42° 8	41° 4	42° 0	40° 8	42° 9	40° 4	
2	40° 4	40° 8	40° 8	40° 9	39° 3	37° 5	36° 3	36° 3	34° 9	34° 4	37° 4	41° 2	45° 6	50° 1	52° 0	50° 4	48° 5	47° 2	45° 1	44° 5	37° 9	41° 5	42° 8	42° 2	
3 **	40° 6	39° 6	38° 0	38° 3	38° 3	39° 4	40° 5	40° 6	42° 9	46° 2	46° 4	47° 0	47° 9	49° 8	50° 8	51° 5	52° 2	48° 7	46° 4	42° 4	40° 3	40° 8	43° 4	42° 8	
4	43° 0	45° 3	44° 0	42° 0	42° 0	40° 8	39° 4	39° 4	38° 9	40° 1	43° 0	46° 2	49° 5	50° 8	51° 5	52° 2	48° 7	46° 4	42° 4	40° 3	40° 7	43° 4	42° 8		
5	42° 9	42° 2	42° 4	42° 4	41° 6	39° 9	36° 2	35° 7	35° 7	37° 0	40° 3	43° 8	46° 9	49° 0	50° 2	49° 1	48° 4	47° 0	45° 1	43° 8	42° 6				

\* International Quiet Days. \*\* International Disturbed Days.

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

\* International Quiet Days. \*\* International Disturbed Days.

## MAGNETIC OBSERVATIONS. ABINGER 1940.

D 7

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

\* International Quiet Days. \*\* International Disturbed Days.

TABLE II. - HOURLY MEANS OF HORIZONTAL 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>																									
18000 Y + Tabular Quantities (in Y)																									
1	540	540	542	531	535	538	541	538	534	530	527	532	534	537	543	544	549	550	546	544	523	528	527	522	522
2	510	525	521	521	522	530	540	540	532	530	526	524	517	513	513	529	532	537	539	539	538	526	527	534	534
3 **	533	531	530	533	543	547	546	534	521	507	495	491	492	495	496	419	442	426	452	464	440	462	484	486	486
4	498	488	487	492	490	496	498	497	491	489	488	477	476	473	484	474	512	525	525	507	503	519	514	516	516
5	516	516	524	537	509	521	525	524	521	519	518	518	519	525	528	524	530	530	525	520	505	515	515	520	520
6	514	505	516	520	541	543	540	530	525	522	518	512	505	498	507	496	483	515	507	536	521	527	546	528	528
7	522	540	530	530	531	532	534	533	528	522	516	511	509	509	498	522	523	525	543	542	531	539	552	516	516
8	522	528	531	535	551	535	530	531	531	534	537	536	537	535	525	516	528	531	532	541	535	531	539	544	544
9	532	533	534	535	535	537	538	540	539	535	533	521	518	517	532	517	517	537	522	546	515	517	528	528	528
10 **	535	535	536	531	533	535	537	541	537	534	541	545	547	520	490	459	481	481	499	475	514	519	488	503	503
11 **	508	508	514	516	510	522	537	538	519	506	508	510	513	519	517	522	520	532	532	519	535	490	499	504	504
12	510	504	507	513	518	523	514	529	534	520	509	513	496	519	525	503	513	513	519	526	510	524	526	517	517
13	517	517	526	535	528	528	530	531	522	512	515	520	526	531	530	529	531	531	535	533	531	531	530	530	530
14 *	529	528	529	529	531	535	535	535	531	525	517	524	531	533	531	533	535	536	536	526	526	526	526	535	535
15	535	530	526	524	528	532	533	535	531	524	524	528	532	535	531	535	540	542	542	544	544	539	537	537	537
16	537	529	537	544	544	551	553	549	547	539	527	533	538	530	528	537	532	522	526	530	526	527	527	529	529
17	528	530	546	544	539	553	537	540	528	524	511	523	533	514	484	512	512	490	499	510	508	524	516	518	518
18 **	513	516	520	525	531	539	544	541	524	520	523	522	532	525	508	496	445	449	399	436	465	480	481	488	488
19	486	491	495	497	499	501	503	504	507	504	500	501	508	508	512	515	520	512	521	516	514	514	513	513	513
20	516	515	516	517	522	523	525	521	516	510	509	507	514	514	512	517	519	516	510	511	525	524	523	525	525
21 *	528	527	527	528	530	530	530	527	524	519	515	518	523	526	523	518	527	527	527	528	530	530	530	531	531
22	529	529	531	532	534	535	539	538	533	524	527	528	523	528	530	535	533	526	531	513	538	541	539	539	539
23	536	534	536	538	540	544	547	548	544	540	538	542	544	544	545	544	545	546	547	541	516	512	514	523	523
24	524	526	538	525	533	532	534	536	534	531	523	524	521	529	533	529	523	524	529	523	523	524	524	523	523
25	524	519	531	538	533	531	530	518	511	515	516	512	524	511	498	524	521	527	531	534	535	524	528	530	530
26 *	534	534	534	534	532	532	532	530	525	521	519	524	530	537	542	545	543	540	540	545	538	528	536	535	535
27 *	537	535	540	540	541	539	543	546	546	534	522	521	522	530	539	539	541	547	547	545	543	542	541	541	541
28 *	542	536	538	539	539	541	543	543	536	530	529	531	535	543	548	548	545	545	546	544	544	544	536	533	533
29	532	532	532	539	539	539	539	539	534	530	521	521	526	534	536	525	504	504	490	530	539	543	532	528	528
30	539	543	539	538	537	539	552	555	544	516	516	504	511	527	540	527	514	540	547	543	538	531	531	524	524
31 **	536	532	528	535	546	567	558	552	548	545	533	527	527	503	512	534	500	522	515	535	530	519	528	522	522
Mean	525	524	527	529	531	534	535	534	529	523	520	519	521	521	521	519	518	521	521	525	522	522	524	523	523
Mean *	534	532	534	534	535	535	537	536	536	526	520	524	528	534	537	536	538	539	539	539	536	533	534	535	535
Mean **	525	524	526	528	533	542	544	541	530	522	520	519	522	512	505	486	478	482	479	486	497	494	496	501	501
<b>February</b>																									
1 **	541	527	513	516	514	530	516	525	509	500	507	489	488	502	519	532	530	549	514	515	508	501	525	516	516
2 **	534	526	518	519	520	523	532	522	507	516	518	514	513	507	514	518	533	531	512	529	524	524	531	539	539
3 **	538	535	529	530	530	535	537	535	536	521	509	510	514	498	519	500	505	541	529	530	533	521	554	530	530
4	537	531	530	530	531	532	536	537	534	530	523	523	522	525	525	524	516	522	531	533	536	536	536	545	545
5	545	536	534	535	536	541	544	549	547	544	537	536	539	536	536	520	521	548	544	534	527	521	531	543	543
6	547	531	533	534	532	539	544	547	546	548	540	548	548	548	540	533	542	548	548	516	511	515	519	523	

TABLE II. - HOURLY MEANS OF HORIZONTAL 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>March</b>																										
1	541	539	540	544	551	551	560	546	534	531	527	519	520	524	531	538	540	541	548	549	551	549	549	548	548	
2	547	547	548	550	550	549	551	546	536	529	524	524	529	531	539	541	539	542	549	552	552	547	548	548	550	
3	549	549	552	552	551	549	553	547	540	526	520	522	526	529	529	535	539	549	549	549	555	546	548	548	548	
4	545	544	545	547	551	551	552	552	548	541	537	537	536	538	534	545	547	549	551	551	549	547	560	547	550	
5	546	544	539	539	543	546	548	546	543	538	532	534	537	538	539	544	546	549	550	552	552	550	547	560	550	
6 *	550	548	547	547	546	548	555	550	543	532	530	535	540	543	547	548	550	553	552	559	562	557	552	546	546	
7 *	551	552	550	546	543	550	548	548	541	528	523	525	534	542	548	553	554	553	557	558	555	552	551	549	549	
8	547	555	546	542	546	546	541	546	546	543	540	542	540	546	545	544	547	548	553	553	523	510	511	512	512	
9	516	511	510	511	546	539	532	524	521	515	507	508	518	516	520	523	519	531	530	538	520	526	523	536	536	
10	529	523	526	531	527	524	522	525	532	539	536	538	543	543	539	540	544	543	547	542	535	537	536	537	536	
11 *	536	538	540	538	537	537	540	540	533	525	521	525	524	527	534	541	539	541	547	547	551	549	551	551	551	
12	551	549	551	552	553	552	551	549	541	528	526	528	538	541	546	533	530	518	489	484	488	552	519	519	519	
13	519	522	531	529	533	542	539	529	529	511	508	505	517	526	531	525	524	535	537	540	540	539	534	536	536	
14	530	533	536	539	540	535	549	545	533	516	519	512	512	514	521	529	527	524	533	545	541	531	543	542	542	
15 *	539	539	538	539	542	544	545	545	536	523	510	511	515	521	532	540	547	546	548	548	548	547	545	545	545	
16	545	545	545	548	548	550	548	548	539	523	512	517	518	528	528	542	547	546	546	537	524	528	528	535	535	
17	539	539	544	545	545	548	553	548	538	521	508	506	510	516	525	535	540	545	549	550	550	549	550	549	549	
18 *	548	548	548	550	551	551	553	547	537	528	525	529	530	536	544	548	553	554	559	560	562	564	563	563	563	
19	562	560	566	562	559	555	551	548	532	528	531	533	530	541	537	527	524	527	526	506	509	517	515	518	518	
20	523	523	529	549	523	518	518	512	503	492	472	463	492	512	501	514	530	521	539	539	516	525	533	573	573	
21	549	533	525	535	537	542	533	532	525	514	509	514	521	530	531	526	535	538	539	536	544	546	553	553	553	
22	564	564	553	538	535	539	540	535	521	514	508	510	517	522	530	533	544	552	552	550	530	535	531	535	535	
23	539	536	537	540	543	541	556	564	539	503	506	470	487	503	509	520	539	520	535	547	550	524	490	515	515	
24 **	509	506	497	491	485	494	500	496	499	492	476	-	-	411	460	469	447	451	446	467	462	473	553	499	436	422
25 **	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mean	530	526	525	525	530	530	531	529	518	504	492	498	508	517	520	528	540	534	534	533	530	529	528	531	531	
Mean *	545	545	545	544	544	546	548	546	538	527	522	525	529	534	541	546	549	549	552	554	555	554	553	551	551	
+ Mean **	485	440	446	447	480	486	464	467	427	387	322	388	435	468	466	493	585	523	485	468	467	469	462	473	473	473
<b>April</b>																										
1 **	487	464	467	496	469	472	449	484	449	400	397	429	450	447	463	463	463	479	496	517	524	505	505	523	501	501
2 **	497	492	492	492	493	497	496	498	492	488	485	487	496	502	507	517	521	527	548	564	488	486	484	484	488	488
3 **	511	478	541	499	433	469	410	431	451	441	458	467	482	490	523	515	532	524	527	545	548	532	515	513	513	
4	505	503	501	507	503	503	503	509	495	483	482	490	502	514	526	523	517	512	519	528	522	542	524	530	530	
5	538	531	528	521	518	521	520	518	510	496	493	500	506	506	508	512	515	514	526	531	545	535	532	532		
6	545	529	523	524	517	517	531	527	512	494	487	493	496	504	513	518	523	527	534	540	533	532	532	532		
7 *	530	530	530	531	532	534	533	529	516	502	494	493	500	511	521	532	535	535	538	534	535	534	534	534		
8 *	534	533	532	534	535	538	540	539	532	516	502	506	516	526	532	544	545	530	540	538	542	542	541	538		
9 *	540	538	538	536	538	542	544	544	535	519	508	511	516	524	525	530	532	535	538	538	539	539	539	539		
10 *	540	539	538	539	541	543	541	538	527	511	502	505	507	517	529	540	546	550	552	549	548	546	544	544		
11	546	545	545	547	550	552	551	546	536	524	516	521	525	537	547	558	558	545	545	545	546	545	545	543	542	
12 *	540	541	543	544	544	548	547	545	537	523	514	513	513	517	529	544	554	554	553	551	552	552	550	548	548	
13	544	553	547	549	552	556	565	558	546	532	525	510														

TABLE II. - HOURLY MEANS OF HORIZONTAL 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>May</b>		<b>18000 γ + Tabular Quantities (in γ)</b>																							
1	539	532	530	535	532	533	536	528	524	526	527	532	531	530	523	534	541	553	544	550	542	542	542	532	532
2	535	536	535	541	530	532	541	539	530	519	519	522	521	526	529	540	536	535	537	542	544	544	540	542	542
3 *	542	541	534	535	537	535	538	528	524	522	520	521	530	542	543	540	540	543	545	548	548	546	548	546	546
4 *	543	542	535	537	538	536	528	521	517	517	519	524	529	528	533	541	543	543	543	546	548	551	553	552	552
5	553	543	541	542	542	545	537	526	515	513	519	532	536	537	537	539	540	543	555	557	549	544	548	548	547
6 *	546	546	546	547	546	545	543	539	536	535	530	534	542	547	553	562	562	560	559	558	557	557	557	557	556
7	562	560	555	557	559	553	537	521	524	524	525	528	528	529	534	542	546	552	552	543	549	546	544	544	544
8	546	548	553	555	551	542	533	524	513	516	520	527	532	531	536	539	548	560	560	555	553	555	555	555	555
9	554	562	557	546	541	557	525	522	512	510	515	526	532	530	516	528	542	550	552	554	553	560	561	559	559
10	556	557	556	556	555	539	536	537	536	530	531	533	540	532	542	549	566	584	572	568	560	579	537	544	544
11	539	542	546	548	536	549	537	526	512	509	515	509	518	526	539	547	542	548	550	567	569	543	542	544	544
12	539	542	535	533	533	533	513	526	524	513	506	510	507	506	504	538	552	565	562	548	548	540	540	548	548
13	539	543	534	534	534	535	530	525	519	519	521	526	521	522	524	534	557	568	563	555	549	553	543	543	543
14	546	537	539	539	537	524	515	512	503	504	512	517	517	517	540	557	560	555	558	559	555	545	546	540	540
15	536	536	540	534	551	548	541	529	527	524	521	528	531	532	542	534	544	553	572	559	552	537	539	528	528
16	523	524	530	534	534	533	523	529	528	530	532	532	527	524	522	530	544	557	562	560	557	555	557	557	556
17	559	559	552	541	535	543	549	544	548	553	538	527	531	534	534	549	560	573	567	562	552	546	547	547	547
18 **	545	552	540	539	537	540	556	529	498	504	521	517	488	453	497	506	503	521	528	528	531	530	528	533	533
19	542	546	521	516	524	522	517	503	500	503	506	510	510	518	517	522	531	544	537	543	548	570	551	545	545
20	546	548	538	534	538	534	532	528	525	524	531	527	530	528	546	535	557	546	549	545	546	548	548	548	548
21	548	549	551	550	564	547	539	530	525	520	517	521	533	539	551	557	555	555	558	550	547	551	559	559	559
22 **	551	561	573	543	524	508	487	530	523	475	471	492	495	508	520	521	519	528	555	556	551	547	546	543	543
23 **	543	544	541	546	546	547	547	538	521	517	513	513	519	529	543	543	553	559	602	597	571	570	560	560	560
24 **	567	564	565	555	567	578	541	526	495	420	435	476	481	494	525	543	521	535	562	537	548	542	525	519	519
25	530	527	526	540	533	521	513	506	502	501	499	507	504	511	522	530	546	575	562	558	545	541	539	539	539
31 *	544	545	543	540	541	540	538	536	534	530	529	535	535	532	538	543	553	559	559	558	554	552	552	551	551
Mean	544	545	543	541	541	537	532	526	519	513	515	519	521	523	532	539	547	553	559	557	553	550	547	545	545
Mean *	543	543	540	540	540	538	535	530	527	525	524	528	534	538	543	547	551	553	552	553	553	550	550	550	550
Mean **	548	553	554	545	543	538	533	529	510	484	489	502	499	500	521	529	536	546	568	559	552	547	542	537	537
<b>June</b>		<b>18000 γ + Tabular Quantities (in γ)</b>																							
1 *	549	547	548	550	552	549	543	535	525	525	533	534	536	535	540	556	559	562	565	563	558	556	549	548	548
2	546	549	545	556	548	554	558	545	534	528	522	515	516	526	539	540	534	544	562	559	556	550	547	545	545
3	541	541	540	543	541	538	532	525	513	511	522	529	540	523	540	550	554	549	551	556	559	558	558	558	558
4 *	558	545	546	545	546	545	541	536	534	534	537	538	541	548	553	551	554	556	561	565	563	567	562	563	563
5	565	562	561	561	563	557	544	529	523	521	534	551	562	553	548	556	565	570	577	581	570	570	552	552	552
6 **	571	546	532	550	531	520	532	508	479	475	499	504	501	534	552	545	536	570	569	561	549	531	522	511	511
7 **	523	544	565	538	513	528	522	500	480	457	468	499	516	541	540	546	550	552	554	567	556	544	534	559	559
8	556	551	537	532	532	520	511	504	491	494	497	499	511	527	516	537	547	559	570	575	556	552	559	545	545
9	538	541	540	540	531	538	528	521	502	478	480	500	518	531	532	533	543	557	584	573	550	554	561	543	543
10	540	543	538	539	537	536	530	515	517	517	512	513	522	530	540	546	548	553	555	556	556	552	550	554	554
11 *	553	545	548	548	550	552	550	546	534	521	521	520	534	544	556	557	558	571	563	567	560	558	559	554	554
12	551	549	548	549	552	553	552	549	542	530	518	516	515	526	538	538	556	563	572	574	567	5			

TABLE II. - HOURLY MEANS OF HORIZONTAL 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>	
July	18000 γ + Tabular Quantities (in γ)																									
1	541	543	534	543	540	548	544	537	521	505	504	514	522	538	553	555	564	559	552	551	543	545	547	547	547	
2 *	545	544	542	542	542	539	538	538	539	538	538	538	538	539	544	557	556	556	561	561	556	552	554	554	554	554
3	549	544	539	541	541	535	538	544	547	541	534	544	534	530	535	560	571	570	571	580	565	557	550	534	534	
4 **	516	529	552	544	534	529	520	514	498	491	491	516	543	541	543	537	536	563	561	561	548	543	541	546	548	
5	534	541	536	534	529	529	514	516	511	501	502	516	522	522	551	561	547	554	567	580	555	559	559	559	548	
6	560	552	538	535	543	538	525	515	511	510	505	509	498	522	544	549	561	557	559	577	556	543	540	543	543	
7	543	538	536	540	541	537	528	516	514	511	514	518	526	525	543	556	561	561	571	552	547	542	541	543	543	
8	538	540	544	543	538	533	531	524	518	507	500	509	523	532	547	556	557	550	558	555	563	568	571	587	587	
9	567	565	564	563	562	558	541	529	520	526	524	522	518	539	550	547	565	570	592	575	576	569	558	558	558	
10 **	555	579	567	554	550	527	524	545	524	488	472	478	487	530	541	567	551	558	558	555	552	561	565	547	547	
11	549	560	547	541	539	552	544	530	515	500	504	506	500	506	525	538	546	558	556	556	558	550	542	543	543	
12	542	543	547	550	554	540	539	525	532	519	520	523	530	537	547	551	556	563	565	563	553	550	548	547	547	
13 **	547	546	546	540	540	543	534	537	549	530	521	549	545	549	482	506	543	513	523	518	517	523	531	520	520	
14 **	527	527	517	529	522	535	504	502	507	498	479	495	489	486	508	536	551	552	556	552	546	549	534	534	538	
15	531	538	534	536	532	527	525	523	511	505	494	496	511	518	527	542	536	559	565	563	551	547	542	538	538	
16	538	537	520	525	525	532	526	520	506	500	513	520	525	523	540	549	550	556	552	552	553	549	551	547	547	
17 *	544	547	547	543	541	542	534	531	524	517	514	523	530	539	543	558	548	543	552	553	550	549	548	548	548	
18 *	548	544	544	542	540	541	540	538	536	531	529	538	542	545	544	549	553	553	558	558	559	561	556	556	556	
19	554	550	547	549	554	550	547	534	528	520	520	527	532	536	548	541	554	556	563	563	565	561	559	552	552	
20 *	547	552	554	554	553	551	545	535	525	517	516	525	534	542	553	563	573	574	573	563	559	555	552	549	549	
21	549	557	554	554	558	555	548	541	537	527	525	518	526	534	545	557	562	579	579	563	563	552	555	552	552	
22	551	552	546	551	548	536	512	528	521	517	519	515	531	539	528	545	566	569	560	563	558	546	546	540	540	
23	552	540	540	542	541	541	536	533	528	528	526	524	519	529	537	551	570	565	555	551	548	549	546	541	541	
24	537	541	540	550	542	554	552	540	527	505	510	508	513	534	549	553	561	557	560	555	555	549	547	558	558	
25	551	532	533	533	543	542	527	530	525	503	498	507	522	526	535	549	562	563	557	559	558	553	551	553	553	
26	566	548	548	542	546	555	555	547	535	525	519	512	514	526	540	537	542	551	558	560	560	558	556	553	553	
27 *	553	547	545	548	551	555	558	555	544	535	534	534	538	545	551	558	564	569	571	569	573	570	571	571	571	
28	570	564	558	560	555	553	546	536	528	525	525	530	547	540	539	542	543	553	558	563	564	562	561	558	558	
29	555	549	551	556	560	558	548	546	544	541	534	538	540	549	557	572	578	584	571	577	559	564	560	560	560	
30 **	558	562	558	560	553	564	562	547	536	522	517	524	544	550	570	580	587	584	572	565	552	549	542	542	542	
31	543	542	557	553	532	526	519	533	528	501	512	512	511	510	537	546	560	539	548	564	560	558	555	551	551	
Mean	547	547	545	545	544	543	536	532	525	518	513	519	524	531	540	550	557	559	561	561	555	553	551	549	549	
Mean *	547	547	546	546	545	546	543	543	539	534	528	526	532	532	536	542	547	557	558	563	561	559	558	556	556	
Mean **	541	549	548	545	540	540	529	529	522	506	496	512	522	531	530	545	554	554	554	554	543	545	545	538	538	
August	18000 γ + Tabular Quantities (in γ)																									
1	547	556	561	544	537	538	535	528	517	510	516	532	544	547	548	551	555	560	549	553	551	553	564	548	548	
2	542	540	542	544	543	541	535	528	518	512	523	532	536	544	542	549	560	551	571	553	571	548	563	563	563	
3 **	560	559	562	550	552	553	539	533	515	522	508	504	497	504	533	486	539	529	535	530	532	540	546	546	546	
4	542	547	552	546	546	541	524	519	500	490	499	515	524	532	543	546	543	536	545	548	553	551	551	551	548	
5	548	546	544	540	543	546	543	531	519	507	499	516	519	531	531	557	550	566	561	555	557	551	548	548		
6 **	554	564	545	549	538	543	545	532	507	493	492	513	515	527	515	538	559	541	550	561	561	560	545	555		
7	548	547	540	541	543	544	545	533	517	483	487	504	501	503	515	513	545	555	549	555	552	550	547	548		

TABLE II. - HOURLY MEANS OF HORIZONTAL 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>September</b>																									
18000 γ + Tabular Quantities (in γ)																									
1 **	546	551	543	534	539	545	527	507	502	502	501	498	530	532	534	511	513	514	522	519	532	538	540	540	540
2	540	540	538	536	531	529	525	514	505	492	507	520	530	523	533	540	538	539	549	542	548	548	547		
3	543	534	536	539	536	536	533	514	500	396	491	500	496	516	529	527	537	532	539	538	529	518	543	538	
4	536	554	536	529	545	532	527	518	489	465	466	481	512	527	538	538	532	533	539	545	542	548	530	534	
5	546	543	536	534	536	532	521	511	501	491	493	501	520	525	530	530	542	541	547	542	539	543	546	541	
6	540	543	541	542	541	538	538	538	521	507	499	508	514	531	541	542	542	543	550	554	552	556	549	542	
7 **	551	560	538	547	538	554	540	509	483	478	469	478	498	497	496	507	532	530	542	543	538	551	541	539	
8	545	527	528	533	531	530	532	529	511	491	486	493	509	514	506	513	532	528	530	541	543	543	549		
9	563	541	542	532	535	539	529	527	514	491	491	498	515	515	516	516	521	529	550	537	547	536	527	540	
10 *	532	530	527	527	529	532	536	535	530	515	503	511	522	527	527	527	529	532	538	544	547	546	545	542	
11 *	541	541	541	541	541	540	538	534	527	509	503	512	526	534	534	532	529	527	541	554	554	555	554	550	
12 *	547	547	546	542	545	545	545	542	534	526	524	531	534	536	533	534	540	547	552	550	554	552	550		
13	551	550	551	550	549	545	540	529	521	521	529	540	549	554	565	554	558	556	564	564	563	562	561		
14	560	558	565	568	571	560	547	536	531	527	534	546	560	561	557	560	545	547	554	508	543	553	545	537	
15	536	537	538	541	532	531	531	523	505	513	520	531	534	525	542	540	535	543	547	541	545	548	551	548	
16	545	545	545	544	543	540	532	524	520	517	516	520	536	536	542	517	521	538	530	536	536	537	541	542	
17 *	543	541	542	543	542	541	536	527	523	516	518	529	542	542	545	543	550	551	556	561	557	556	557	559	
18	556	555	555	554	551	551	545	532	525	516	509	515	527	528	538	547	549	552	559	562	559	557	564		
19 *	559	556	556	555	552	552	545	533	527	524	518	526	531	536	546	542	550	554	554	554	555	554	558		
20	558	558	559	560	556	555	551	546	537	527	516	514	532	536	545	554	526	545	553	553	561	553	552	554	
21	551	553	558	553	555	553	551	540	524	515	506	510	508	512	512	522	533	542	544	544	547	548	549	546	
22	546	542	544	544	542	541	536	527	523	516	518	529	542	542	545	543	550	551	556	561	557	556	557	559	
23 *	544	542	542	543	544	546	544	538	528	520	517	519	520	528	538	544	545	550	551	552	551	549	549	549	
24	546	548	544	542	549	547	544	540	529	517	510	510	518	525	537	544	546	550	557	558	558	548	540	539	
25	539	540	550	554	547	542	561	551	539	529	515	501	514	522	539	535	540	531	532	531	544	550	554	540	
26 **	537	539	542	543	541	542	541	540	532	520	508	510	514	517	530	535	529	581	475	456	477	499	511	523	
27 **	510	540	511	490	500	508	501	511	500	487	488	498	490	488	486	500	501	510	513	522	540	515	534	507	
28 **	514	526	523	526	508	513	497	531	513	508	495	502	507	497	495	496	499	508	520	529	513	516	526	526	
29	526	526	522	524	529	524	518	515	509	501	498	497	513	512	505	508	515	517	523	529	546	529	537	538	
30	539	540	533	532	534	539	537	529	519	508	506	511	524	526	528	527	526	526	531	523	532	534	533	535	
Mean	543	544	541	540	540	539	535	529	517	508	504	510	521	525	529	530	533	538	540	540	543	543	544	543	
Mean *	545	543	543	542	542	543	541	535	528	520	516	523	530	534	538	538	543	547	550	552	552	552	551	552	
Mean **	532	543	531	528	525	532	521	520	506	499	492	496	508	506	508	510	515	529	514	514	520	524	530	527	
<b>October</b>																									
1 **	569	541	532	533	533	553	532	531	510	488	478	486	496	507	510	516	504	504	489	470	489	509	511	513	
2	515	518	520	522	517	521	513	508	502	497	490	486	503	507	507	513	496	498	504	503	512	524	523	522	
3	525	533	540	545	556	546	554	519	493	473	468	472	481	491	515	517	515	509	543	525	527	532	538	537	
4	533	544	544	544	546	540	528	519	510	498	498	501	506	511	519	524	526	524	535	535	540	537	540		
5	548	537	537	535	547	546	545	540	526	516	505	510	513	518	509	526	533	540	541	538	542	543	542		
6	542	540	540	543	546	545	547	541	533	524	528	515	522	513	517	525	509	515	524	533	540	542	541	530	
7 **	553	544	551	566	579	560	506	483	491	508	505	505	486	474	486	498	481	491	445	474	498	493	492		
8 **	484	499	532	547	510	486	488	489	477	461	470	479	481	487	504	498	497	505	508	486	491	504	510		

TABLE II. - HOURLY MEANS OF HORIZONTAL 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>November</b>																									
	<b>18000 γ + Tabular Quantities (in γ)</b>																								
1	546	550	546	548	552	567	550	547	533	528	521	516	509	510	515	523	528	521	539	543	545	545	543	541	
2	541	541	539	537	544	548	546	536	532	532	512	522	528	530	530	534	539	543	543	543	545	539	537		
3	537	531	531	537	537	554	559	554	533	518	499	497	503	513	512	510	515	518	505	513	515	519	523	531	
4	532	532	537	540	544	544	567	550	539	522	515	511	517	504	496	499	484	483	500	490	502	508	528		
5	535	519	520	525	543	550	533	523	520	515	505	498	505	505	521	522	528	531	532	536	553	540	538	535	
6	540	539	533	545	540	542	546	547	537	524	519	513	510	513	524	529	533	546	545	551	553	555	544	546	
7	547	549	553	551	552	552	559	549	542	531	522	503	497	515	519	531	539	542	542	544	546	549	549	549	
8 *	544	549	550	546	549	550	551	549	542	533	529	524	522	524	531	536	538	541	542	544	549	549	549	549	
9	546	547	546	551	560	556	560	559	535	522	512	508	508	506	515	509	515	533	537	538	530	531	531	531	
10 *	531	531	533	535	541	544	544	540	533	531	526	528	532	535	535	536	539	544	549	549	551	550	550	550	
11 *	550	550	551	553	556	559	559	555	550	542	540	537	535	539	546	548	551	553	552	553	553	553	548	541	
12 **	546	542	539	541	545	549	549	556	555	523	501	526	539	528	525	533	540	525	519	504	544	474	472		
13 **	474	488	468	478	527	519	504	501	501	499	497	506	514	515	508	519	515	528	531	533	531	531	527		
14	522	528	535	522	524	526	523	524	523	517	510	513	510	517	531	531	535	517	523	531	533	514	530	530	
15	528	528	538	533	541	535	532	526	531	530	526	522	528	530	531	538	532	532	535	544	535	531	531	526	
16	535	531	533	538	546	537	540	540	540	535	531	528	532	541	548	549	495	508	534	508	497	520	514	526	
17	535	531	530	533	535	539	538	537	533	523	518	517	519	528	537	528	514	531	533	504	526	560	530		
18 *	516	525	528	532	534	535	536	539	538	531	525	522	518	520	529	533	540	542	542	543	544	542	532	535	
19 *	540	540	542	547	552	553	555	558	548	540	545	550	548	546	546	548	555	556	560	559	558	553	550		
20	551	551	555	557	560	560	562	567	560	551	544	541	545	544	544	544	546	550	550	546	529	522	538	533	
21	514	524	528	538	544	551	567	555	522	499	499	510	510	502	517	519	531	536	539	539	529	529	518	522	
22 **	523	518	518	537	546	548	549	518	536	516	477	480	497	518	516	522	532	536	539	537	537	504	521	525	528
23	528	534	532	539	530	537	509	501	486	468	481	486	485	490	503	508	519	521	516	514	512	522	523	519	
24	525	521	521	523	525	528	526	536	540	534	529	530	531	534	536	537	539	539	539	535	535	531	531	530	
25 **	530	532	539	535	539	543	548	549	552	518	539	548	538	506	473	486	471	495	483	498	513	525	540	527	
26	518	518	541	550	525	531	540	523	498	512	516	521	516	514	523	524	507	532	536	536	536	540	539	539	
27	536	541	538	534	538	540	540	539	536	538	536	535	521	504	513	525	527	535	528	530	533	554	539	540	
28	540	539	539	541	546	546	545	544	541	532	529	534	530	539	537	539	542	543	543	540	545	543	530	530	
29 **	545	546	545	548	553	531	555	549	537	514	539	530	521	501	478	492	486	489	494	496	527	552	552	523	
30	512	510	518	516	525	532	530	530	529	510	503	507	509	511	523	500	525	530	525	528	535	533	532	549	
Mean	532	533	534	537	542	544	544	540	533	523	519	518	519	519	522	525	525	530	531	532	532	536	534	533	
Mean *	536	539	541	543	546	548	549	548	542	535	533	532	531	533	537	540	545	547	548	550	551	550	546	545	
Mean **	524	525	522	528	542	538	541	535	536	514	512	516	520	513	501	508	508	515	514	516	516	535	524	515	
<b>December</b>																									
	<b>18000 γ + Tabular Quantities (in γ)</b>																								
1	534	534	537	540	535	544	545	548	538	540	532	517	530	532	525	526	534	534	514	533	523	517	523	521	
2	537	537	540	530	534	539	541	540	539	539	494	505	519	523	508	529	527	530	533	533	525	544	532		
3	520	534	540	535	544	538	539	538	539	539	530	516	521	523	502	506	530	532	538	527	530	548	525	534	
4	536	537	539	548	553	552	545	550	552	545	538	537	530	537	529	514	516	525	532	548	542	541	540	540	
5	546	536	539	537	541	550	554	554	543	546	539	535	540	545	545	542	537	539	534	536	541	539	545		
6 *	540	537	541	540	549	554	551	550	550	545	544	546	545	542	543	544	545	546	546	543	541	541	541	541	
7 *	539	539	541	545	548	548	546	545	545	541	537	544	546	547	547	545	548	550	5						

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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>		<b>43000 γ + Tabular Quantities (in γ)</b>																							
1	83	84	84	82	86	87	87	89	90	91	92	91	88	90	89	89	90	88	91	91	92	96	93	92	92
2	83	89	81	83	86	87	87	88	90	93	94	90	91	92	91	93	95	94	94	93	92	92	89	89	83
3 **	83	81	81	79	77	77	77	78	82	84	86	86	90	95	106	174	228	207	184	155	145	139	118	107	
4	98	98	99	99	99	102	104	106	107	108	106	100	104	106	110	128	121	106	104	106	112	102	99	96	96
5	96	94	91	84	81	82	87	90	94	92	91	88	90	91	91	91	90	91	90	91	95	97	92	92	
6	92	90	85	84	80	75	78	81	86	88	87	86	90	102	104	106	110	108	106	103	98	94	91	84	
7	86	83	80	84	86	86	86	87	87	86	87	87	91	99	105	99	96	95	95	91	89	79	79		
8	84	88	85	84	80	78	82	84	86	88	88	88	93	98	97	97	96	92	92	92	90	90	88		
9	84	88	88	88	88	89	88	90	92	94	92	92	92	96	96	100	97	96	96	92	93	91			
10 **	88	88	85	86	88	88	88	89	90	90	90	88	88	97	121	140	144	141	138	132	120	100	100	102	
11 **	97	97	99	97	95	95	93	90	87	89	93	94	91	98	99	101	101	98	98	116	109	107	108	95	
12	94	91	90	86	84	86	85	90	89	91	94	95	94	102	103	102	106	104	102	98	90	89			
13	92	94	92	88	86	88	89	90	89	90	90	88	89	94	96	95	96	94	94	92	90	89	88		
14 *	89	90	90	90	90	90	90	90	89	89	90	90	90	91	92	93	92	92	92	94	92	90	90		
15	81	83	82	84	85	87	87	87	89	87	89	85	85	85	93	91	93	91	91	89	89	87	87		
16	86	85	84	81	81	83	84	85	85	85	81	77	80	86	83	92	93	93	97	95	93	91	89	86	
17	83	83	79	76	79	79	81	84	86	86	87	84	87	85	105	105	105	111	111	107	103	97	91	87	
18 **	83	85	87	87	86	88	87	87	90	91	88	81	85	88	103	123	170	189	168	156	133	119	111	105	
19	103	101	101	101	101	101	102	103	105	108	107	104	104	107	105	103	101	100	99	97	97	97	95		
20	96	95	95	95	93	95	95	96	94	93	95	97	99	107	104	100	97	100	102	101	97	95	93		
21 *	93	93	92	91	91	91	91	92	92	92	95	95	95	97	100	99	95	97	97	96	95	93	93	93	
22	91	91	89	89	89	89	89	89	88	88	85	85	89	93	94	93	93	95	99	99	95	92	90		
23	89	89	88	88	87	85	85	87	87	84	82	84	86	89	90	89	89	89	89	90	95	101	103	101	
24	97	97	93	87	87	87	85	85	85	85	89	90	91	92	93	95	99	99	99	100	107	105	101		
25	97	96	91	83	83	83	84	84	81	81	82	81	83	89	101	99	102	103	100	97	93	93	93		
26 *	90	91	91	91	91	89	89	89	89	87	85	84	81	81	85	89	90	89	90	89	89	89	89	88	
27 *	90	90	89	90	89	88	88	88	87	85	84	82	83	88	91	92	92	90	90	90	89	87	87	85	
28 *	84	84	85	86	86	87	87	86	84	80	78	78	79	84	88	88	86	87	87	88	86	86	86	84	
29	84	84	86	86	86	86	86	86	88	88	86	86	86	86	90	89	92	94	108	124	122	110	102	97	
30	91	83	75	80	83	85	85	85	85	85	81	84	85	87	89	93	95	101	97	95	99	99	98	97	
31 **	91	87	87	88	87	85	85	81	85	87	87	89	91	93	96	97	100	109	113	109	108	91	95	93	
Mean	90	89	88	87	87	87	87	89	89	89	89	88	90	94	98	101	106	105	104	103	100	97	95	92	
Mean *	89	90	89	90	89	89	89	89	88	87	86	85	86	90	92	91	91	91	91	91	90	89	88		
Mean **	88	88	88	87	87	87	85	86	87	88	89	88	89	95	105	128	150	150	139	133	120	112	106	99	
<b>February</b>		<b>43000 γ + Tabular Quantities (in γ)</b>																							
1 **	77	75	77	81	84	86	86	95	93	95	99	99	103	105	108	109	109	109	107	110	101	103	101	91	
2 **	79	81	85	88	90	94	95	98	97	95	97	100	101	103	107	103	100	103	105	101	99	97	91	88	
3 **	86	83	86	88	89	88	89	93	95	93	93	94	95	103	105	109	113	105	99	99	97	91	88		
4	88	88	89	90	90	90	89	92	90	88	90	92	92	94	97	103	101	97	95	96	96	93	91		
5	82	84	86	86	87	87	86	87	86	85	84	85	85	87	92	97	94	92	92	92	96	98	92		
6	78	82	84	84	86	87	88	88	88	84	81	84	84	87	94	95	94	96	100	107	110	107	104	100	
7	92	76	76	84	86	87	87	88	87	85	83	84	84	87	96	100	99	98	96	96	97	93	90		
8	88	82	81	84	84	84	83	83	82	80	84	88	89	92	94	96	96	98	94	90	99	97	95		
9	85	84	85	85	84	82	83	84	85	83	83	82	84	88	89	90	94	92	92	90	88	88	88		
10	83	88	88	88	88	88	87	88	88	88	83	79	77	76	78	84	86	88	92	92	94	95	92		
11 **	90	88	87	86	86	86	84	82	80	76	74	76	77	78	83	86	86	90	90	92	94	94	91	86	
12 **	88	92	92	92	90	86	84	83	84	80	80	80	79	81	85	98	109	102	96	94	90	89	89		
13	83	80	79	82	83	84	84	82	82	77	73	72	75	78	82	86	88	87	89	91	94	93	89		
14 *	76	80	83	83	84	83	83	83	83	81	80</td														

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>	
March	43000 γ + Tabular Quantities (in γ)																									
1	86	86	86	86	86	86	88	87	91	91	87	83	82	83	88	90	93	92	91	92	90	90	90	89	86	85
2	86	85	86	84	86	86	86	88	90	88	86	82	80	78	82	83	86	88	89	90	90	88	88	86	84	84
3	85	84	82	81	81	82	82	83	84	83	82	80	78	80	82	86	90	92	92	88	88	87	86	84	84	84
4	85	84	84	83	82	82	83	84	81	76	73	72	76	81	82	84	86	85	85	85	85	84	85	85	80	80
5	80	80	80	80	81	82	82	82	84	84	84	82	80	82	86	86	86	88	84	84	84	84	84	84	84	84
6 *	84	84	84	83	83	83	83	84	86	84	82	80	76	77	78	79	82	82	80	79	80	79	80	82	82	84
7 *	84	84	83	82	84	82	82	82	84	86	84	82	78	72	74	77	82	86	83	82	82	82	82	82	82	82
8	84	82	81	82	82	78	78	84	85	83	78	74	74	78	82	90	94	92	88	87	88	94	94	94	86	86
9	86	75	70	69	61	51	57	63	67	68	68	70	75	81	89	98	102	105	102	100	99	98	98	97	97	
10	95	94	94	92	91	89	86	88	87	83	80	82	82	84	89	94	92	92	91	91	90	88	89	88	88	
11 *	88	89	88	89	89	88	88	89	91	90	86	82	79	80	83	89	94	93	91	90	90	88	86	87	86	
12	86	86	86	86	86	86	86	88	91	87	82	75	73	75	82	84	92	105	112	120	130	134	117	86	77	
13	89	93	86	85	93	91	91	95	91	89	89	80	87	84	85	93	99	103	100	97	95	93	92	90	90	
14	88	89	90	91	91	91	91	91	89	86	85	83	79	75	78	85	94	100	102	102	100	95	95	93	91	
15 *	90	89	89	90	91	91	92	95	93	88	85	83	79	81	82	87	91	91	91	91	91	90	89	87	87	
16	87	87	87	87	88	87	90	91	92	88	80	77	77	79	78	87	92	96	97	101	103	104	101	95	95	
17	93	91	91	91	90	90	90	93	95	95	91	85	80	78	82	87	91	93	95	91	91	89	88	87	87	
18 *	87	87	87	87	87	87	88	90	94	83	88	85	81	77	78	80	85	87	86	85	85	85	85	84	83	
19	83	83	80	77	77	79	83	87	87	87	84	80	75	79	87	103	111	129	135	131	119	112	105	97	97	
20	89	89	87	75	74	85	93	97	95	89	83	83	91	91	97	103	103	103	107	103	97	95	95	95		
21	75	77	83	87	87	80	87	91	91	89	88	85	83	81	85	88	89	92	93	95	93	93	93	90	89	
22	83	79	73	75	81	83	86	91	93	90	81	71	61	65	75	83	87	88	87	89	93	91	91	91		
23	91	91	91	90	89	87	87	83	71	71	68	54	59	70	83	92	107	110	110	105	100	96	96	97	90	
24 **	29	39	49	63	67	74	80	87	89	88	87	-	-	-	173	187	177	169	171	163	165	156	147	141	107	59
25 **	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	
31 **	60	31	53	93	99	105	118	125	123	119	117	159	181	191	179	177	251	232	189	163	137	123	127	115		
Mean	86	78	78	79	81	82	87	93	93	89	86	85	86	92	97	104	116	117	115	108	103	101	96	89		
Mean *	87	87	86	86	87	87	87	87	90	89	86	82	78	77	79	81	86	88	86	85	86	85	84	84		
+ Mean **	76	29	32	39	39	51	81	110	109	105	107	126	135	163	171	188	276	266	248	189	162	151	136	101		
April	43000 γ + Tabular Quantities (in γ)																									
1 **	59	95	72	63	78	99	108	119	111	107	113	113	120	123	128	137	138	134	137	131	125	123	117	117		
2 **	114	115	113	114	112	114	119	124	120	113	110	103	104	107	111	121	130	131	139	120	97	91	90	78		
3 **	97	71	+30	-22	-16	-11	+10	42	58	82	99	102	100	105	112	118	130	142	139	143	151	140	130	124		
4	122	120	120	116	116	114	116	116	115	112	114	110	108	112	117	119	120	122	123	119	116	111	108	110		
5	107	104	106	106	106	106	110	114	110	103	94	90	88	93	100	107	110	112	116	112	112	104	103			
6	99	94	100	104	104	103	102	102	100	98	93	92	92	92	98	104	106	107	107	106	106	106	107	107		
7 *	106	106	106	104	104	104	107	109	107	102	98	92	88	88	96	104	105	108	108	107	106	104	105			
8 *	107	107	107	106	107	107	110	110	108	103	99	91	88	88	97	107	114	113	112	108	106	104	102			
9 *	104	103	103	103	104	105	108	109	107	101	99	81	83	91	101	107	109	110	109	107	105	104	102			
10 *	103	103	103	103	104	105	107	105	101	91	92	82	75	75	82	92	99	101	101	101	101	101	100			
11	101	101	101	101	102	102	103	106	103	95	95	79	78	83	89	97	99	101	103	101	100	98	98			
12 *	99	99	99	99	100	101	102	101	101	99	89	79	71	71	79	87	93	97	99	99	99	99	97			
13	97	96	69	97	97	97	97	96	91	83	73	69	72	81	92	97	105	107	106	105	105	104	103			
14	99	97	97	95	92	89	90	92	91	87	79	71	71	77	87	98	106	113	111	111	107	105	105			
15	100	98	99	99	99	99	101	99	99	92	85	80	77	77	82	101	119	113	112	114	115	111	111			
16	86	80	83	83	83	85	93	94	95	89	84	79	78	84	91	97	107	115	117	114	111</					

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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>		<b>43000 γ + Tabular Quantities (in γ)</b>																							
1	97	95	97	98	101	103	103	99	90	81	78	71	69	79	85	93	95	104	107	107	105	105	102	101	101
2	101	99	99	95	95	97	97	98	95	86	79	72	72	79	85	93	101	106	105	103	101	101	99	99	99
3 *	101	99	98	98	98	102	102	100	98	90	81	74	79	88	94	96	100	103	103	103	101	100	100	98	98
4 *	100	100	98	98	100	100	99	96	87	80	72	69	72	80	89	95	100	104	102	101	100	98	98	98	98
5	96	95	96	97	98	98	98	98	92	86	76	71	72	80	90	98	98	102	98	98	98	98	98	98	98
6 *	98	98	98	98	98	98	98	99	98	96	88	77	70	72	84	90	94	98	100	99	97	95	96	95	96
7	96	94	94	96	98	100	98	98	94	90	84	76	71	71	80	90	96	98	102	106	102	100	98	98	98
8	98	98	98	92	94	96	97	93	86	78	70	67	68	78	90	92	96	99	100	98	96	96	96	96	96
9	95	91	90	90	91	87	86	85	79	73	71	76	86	95	101	101	105	102	101	100	98	97	95	95	95
10	96	96	97	97	97	97	97	96	91	80	69	58	54	59	65	81	91	101	110	113	111	105	93	85	83
11	82	79	82	74	82	85	85	87	84	79	69	65	67	75	87	99	103	107	108	105	97	95	94	93	
12	90	90	90	92	90	88	88	88	84	80	78	75	75	82	88	100	109	112	113	113	106	100	96	94	
13	91	86	88	94	98	97	94	92	89	86	82	74	74	84	93	98	100	106	111	114	111	101	96	94	
14	89	87	88	90	95	95	96	94	88	80	78	74	78	88	94	100	108	108	110	107	102	98	96	96	
15	97	97	97	93	83	81	81	80	77	75	71	69	73	81	91	103	107	109	115	115	113	107	103	97	
16	94	88	93	95	100	100	93	85	81	75	66	65	72	80	85	87	93	101	102	101	103	99	96	96	
17	95	89	88	91	93	92	87	79	76	73	69	65	65	73	85	91	98	105	109	113	107	101	101	100	
18 **	97	80	80	79	82	80	67	65	63	63	71	69	83	97	106	112	119	125	123	114	109	105	101	94	104
19	101	93	90	98	103	103	103	99	95	91	83	79	79	86	91	101	105	111	107	105	107	101	91	94	
20	97	98	98	101	101	97	98	95	91	82	75	67	72	83	97	105	116	121	113	105	101	99	99	99	
21	99	98	99	98	86	86	92	90	89	85	71	68	72	78	89	99	104	106	104	104	103	99	98	91	
22 **	92	94	73	67	75	70	72	62	68	63	82	87	98	100	108	120	126	128	120	111	106	102	100	100	
23 **	99	99	100	102	103	106	104	99	92	89	85	79	77	91	100	102	105	109	111	114	107	99	93	95	
24 **	98	99	97	95	69	53	59	81	79	67	61	66	75	103	131	143	145	145	148	148	136	127	101	92	93
25	85	89	89	89	95	104	107	104	97	89	81	78	81	91	103	109	115	121	117	115	111	101	101	99	
26 **	99	99	95	90	91	91	89	89	83	75	73	67	65	76	85	97	109	121	133	131	121	121	109	95	75
27	57	63	71	85	93	95	93	93	91	85	73	71	69	75	83	91	99	103	107	111	104	102	99	98	89
28	83	85	88	82	73	77	83	85	85	85	80	77	87	95	101	107	111	118	119	113	105	98	95	96	
29	94	86	86	94	100	98	94	94	92	91	83	79	82	89	98	99	102	107	108	108	105	100	99	98	
30 *	98	98	98	99	101	102	102	102	100	98	93	87	84	85	88	88	95	102	105	104	104	102	98	96	
31 *	96	95	94	96	98	96	96	96	92	85	77	75	78	86	92	101	106	103	102	99	100	98	98	97	
Mean	94	92	92	92	93	93	93	92	91	87	81	76	72	75	84	93	101	106	110	110	108	105	100	97	96
Mean *	99	98	97	98	99	100	100	98	94	87	79	74	77	85	91	96	101	103	102	101	100	99	97	97	
Mean **	97	94	89	87	84	80	78	83	81	75	74	74	80	93	106	115	121	126	127	121	114	103	97	93	
<b>June</b>		<b>43000 γ + Tabular Quantities (in γ)</b>																							
1 *	97	96	96	96	98	94	92	90	88	80	70	67	74	81	91	98	102	100	97	98	100	96	96	96	
2	96	94	92	90	90	84	80	78	70	66	65	72	84	102	111	112	112	111	106	105	102	97	96	95	
3	96	97	98	98	96	92	90	90	89	79	74	76	78	86	92	96	102	102	102	100	97	96	96	95	
4 *	92	92	94	96	98	98	96	92	84	76	68	68	74	82	94	100	104	102	100	98	96	93	92	93	
5	93	93	94	94	97	99	100	99	96	92	86	76	68	70	76	85	97	100	102	102	100	98	96	96	
6 **	92	76	75	78	66	61	66	66	54	62	71	79	85	96	108	112	112	131	140	138	129	118	110	105	
7 **	98	84	72	58	64	68	80	89	86	84	87	92	96	102	106	108	113	118	117	108	102	98	93		
8	76	74	78	90	98	104	109	108	101	95	86	80	84	94	96	102	108	111	112	117	111	106	94	90	
9	93	95	97	97	93	91	96	96	91	89	79	74	78	81	89	98	109	112	118	115	111	103	94	90	
10	91	85	90	97	101	103	101	101	99	91	81	71	70	77	85	93	95	101	101	102	101	99	97	97	
11 *	93	93	95	97	99	101	101	98	95	93	81	74	79	83	93	101	101	110	107	101	97	96	95		
12	94	94	95	98	101	102	101	98	93	82	77	71	74	82	84	94	99	100	99	99	97				

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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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>
July	43000 γ + Tabular Quantities (in γ)																								
1	105	99	93	97	103	104	104	107	103	96	89	85	88	97	103	110	113	114	109	106	105	105	105	105	
2 *	105	105	104	105	107	108	102	99	95	89	81	79	84	97	103	109	111	113	111	108	109	106	105	105	105
3	105	105	105	105	106	106	104	99	95	91	83	75	75	90	93	97	104	109	116	119	113	107	103	103	89
4 **	74	81	81	87	91	94	95	97	93	95	89	83	81	87	93	99	107	117	117	117	111	111	103	103	93
5	85	93	97	101	104	107	106	106	105	101	91	78	81	92	103	108	110	115	116	115	109	106	99	97	
6	95	88	85	89	92	95	96	95	88	85	79	77	73	82	93	99	107	115	115	117	109	103	102	101	
7	97	96	99	104	106	106	100	97	94	92	88	83	84	84	97	112	117	122	121	114	108	104	102	100	
8	98	101	101	99	101	102	104	104	100	96	87	80	82	88	95	103	104	107	112	108	106	102	100	99	
9	92	93	94	96	94	96	98	97	96	88	80	74	74	79	91	98	100	104	112	110	108	106	104	100	
10 **	99	89	82	82	83	85	84	86	84	87	88	88	88	102	112	122	123	130	130	122	115	108	103	98	
11	98	93	82	88	88	88	90	94	93	92	87	78	77	84	94	100	103	112	116	113	112	108	102	102	
12	100	100	100	98	100	99	99	99	94	86	86	86	85	94	102	104	102	106	108	106	107	104	104	102	
13 **	100	99	98	98	103	103	103	99	92	79	70	64	80	125	146	152	160	161	138	120	118	115	115	102	
14 **	106	100	101	103	89	91	95	97	99	93	93	99	109	115	128	134	133	125	121	115	111	107	106		
15	107	105	92	89	93	99	101	95	99	100	98	94	98	103	109	119	124	131	130	119	115	110	107	105	
16	103	98	95	97	101	105	104	99	93	93	88	85	89	97	103	105	107	116	117	113	109	107	107	105	
17 *	103	103	101	99	105	107	109	107	105	101	97	95	101	105	111	112	115	115	112	107	105	105	105		
18 *	105	104	105	104	105	104	100	100	95	91	89	88	81	89	99	107	107	105	105	103	103	102	103		
19	101	101	101	103	107	107	105	105	99	93	87	87	87	88	97	102	105	108	108	103	101	99	100		
20 *	101	101	102	103	104	101	99	96	93	87	83	77	74	79	92	105	107	107	107	104	101	101	101		
21	101	101	99	101	105	104	103	95	85	81	81	77	79	80	89	99	102	113	121	118	113	110	107	105	
22	103	103	104	103	103	99	97	92	83	83	86	84	86	94	105	113	113	119	121	117	111	105	103	103	
23	100	97	99	101	105	107	104	104	101	98	91	82	81	85	93	101	105	108	109	109	107	102	101		
24	99	101	101	101	100	97	97	97	96	93	93	93	89	87	93	105	113	115	115	113	109	103	101		
25	91	90	92	95	99	99	99	99	99	99	99	93	87	75	77	79	87	99	105	107	105	103	101	100	
31	101	97	85	79	85	91	91	93	89	87	89	80	81	81	89	104	110	109	106	105	103	103	101	99	
Mean	99	97	96	97	99	100	99	98	94	91	87	82	83	90	98	106	110	114	114	111	108	105	103	101	
Mean *	102	104	102	102	104	104	102	101	97	93	87	82	81	89	97	106	107	108	107	105	103	102	102		
Mean **	95	93	92	93	93	94	94	94	94	90	87	85	82	86	101	110	120	125	130	128	122	114	110	106	
August	43000 γ + Tabular Quantities (in γ)																								
1	99	95	74	79	93	97	99	100	99	91	83	80	88	91	95	97	101	111	111	110	109	105	98	91	
2	93	97	98	99	101	104	101	100	96	91	87	83	77	81	91	100	104	105	109	113	107	100	99	99	
3 **	97	98	96	97	101	103	103	100	97	91	84	89	100	113	135	146	154	153	137	132	123	113	110	107	
4	103	103	97	99	101	101	101	100	95	95	86	84	87	95	103	111	111	110	109	107	109	103	101		
5	103	103	101	103	103	103	103	101	99	95	91	93	95	99	97	103	104	109	110	108	109	105	101		
6 **	98	92	89	94	96	100	102	102	97	94	87	80	80	92	100	110	118	114	111	112	112	102	100		
7	89	93	96	100	105	106	104	104	100	96	96	96	96	100	108	112	115	124	130	119	108	105	103		
8	102	100	90	91	100	104	105	98	91	86	86	82	86	96	104	108	112	114	112	109	108	105	104		
9 **	102	101	102	104	104	104	102	100	99	91	96	88	101	126	134	146	152	158	156	138	111	112	110	112	
10	110	108	110	110	114	114	111	108	102	94	88	87	84	91	102	112	116	122	124	123	116	111	107		
11 **	106	104	103	98	100	102	102	102	96	95	94	92	94	96	104	118	127	128	124	124	112	114	107	105	
12	90	92	88	88	90	94	94	94	92	86	82	78	80	86	94	106	116	123	121	114	110	107	104		
13	93	96	96	96	104	102	100	94	88	82	83	86	88	94	104	109	115	110	107	104	103	102			
14	100	100	100	100	96	96	97	94	89	84	78	79	85	90	94	102	103	108	111	108	104	101	100		
15 *	96	96	97	100	103	104	106	106	104	98	88	80	78	86	92	102	102	100	98	98	97	96	96		
16 *	98	97	98	98	98	98	99	97	88	84	76	72	73												

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>September</b>		<b>43000 γ + Tabular Quantities (in γ)</b>																								
1 **	91	84	73	79	87	93	95	97	95	86	79	80	91	111	127	132	125	120	114	111	109	105	104	103	103	
2	105	105	104	103	103	103	101	98	89	86	85	87	91	103	111	115	119	122	124	119	109	103	102	101	101	
3	93	83	95	100	105	105	91	88	87	87	85	87	91	99	107	113	121	125	117	113	110	105	97	95	95	
4	99	87	85	97	100	102	104	103	94	92	87	92	91	97	104	113	117	114	110	109	107	103	97	97	97	
5	91	91	94	92	95	98	105	105	101	99	90	93	95	103	107	111	115	115	113	113	109	103	101	101	98	
6	99	99	99	99	101	105	106	105	97	89	81	81	87	93	99	105	107	107	104	103	103	97	95	95	95	
7 **	95	85	80	73	61	63	64	71	77	81	81	83	89	93	101	113	126	123	117	114	112	105	97	93	93	
8	84	91	98	101	101	102	106	108	107	100	92	89	88	96	104	118	136	134	124	116	112	108	104	102	102	
9	93	87	84	82	89	96	102	106	100	92	86	90	96	102	110	116	120	128	128	118	108	102	100	94	94	
10 *	92	94	97	99	100	104	107	109	106	99	88	78	76	86	94	100	102	101	102	103	104	103	102	102	102	
11	102	102	101	100	101	102	104	105	99	92	80	72	78	90	98	104	106	108	106	104	103	104	100	101	101	
12 *	100	100	98	98	96	98	100	102	97	92	88	84	84	88	94	100	99	99	100	101	102	100	98	99	99	
13	98	98	98	97	96	98	98	96	90	84	78	78	81	88	96	96	96	92	94	95	95	96	93	94	94	
14	96	96	95	89	84	85	88	88	86	82	78	77	80	83	86	94	98	106	120	123	114	108	105	106	106	
15	107	107	106	104	102	102	102	98	93	91	92	95	98	104	105	104	110	112	108	104	100	99	98	98	98	
16	98	98	98	98	98	100	102	100	96	90	84	82	84	90	102	112	114	114	112	112	106	104	104	104	104	
17 *	102	104	105	105	105	104	102	98	90	80	74	78	84	90	93	96	96	98	100	100	100	100	100	100	100	
18	100	101	101	101	99	98	98	98	94	90	84	79	80	81	86	92	96	98	99	98	98	98	98	98	98	
19 *	96	96	97	98	97	96	100	98	90	82	75	73	75	78	86	89	94	96	96	95	95	94	92	92	92	
20	93	93	93	93	93	94	95	95	93	81	74	63	59	65	71	81	96	102	109	105	105	105	103	103	103	
21	97	96	94	94	94	95	97	96	90	77	71	66	72	83	86	95	101	107	107	105	99	99	97	96	96	
22	95	94	95	95	95	97	99	99	95	91	86	81	81	87	93	105	105	105	105	103	102	101	99	99	99	
23 *	97	97	97	97	97	97	97	99	101	95	87	83	83	89	91	96	95	95	98	97	94	91	94	95	95	
24	96	96	96	96	96	96	96	98	102	100	94	88	80	81	82	88	92	95	96	98	98	98	98	101	102	
25	104	104	103	103	103	103	103	102	96	92	90	88	86	90	90	92	102	110	126	122	116	112	108	96	92	
26 **	96	98	98	98	98	100	104	104	100	95	88	85	80	83	94	104	110	130	166	154	129	125	120	98	98	
27 **	92	42	44	49	67	79	92	102	104	102	99	99	99	106	117	129	132	139	135	124	110	107	92	84	84	84
28 **	82	72	82	75	66	70	74	84	87	94	94	101	102	110	123	133	141	153	142	120	116	116	110	108	108	108
29	107	102	97	102	103	103	107	109	108	105	101	101	99	103	111	117	116	115	113	112	111	105	103	105	105	
30	105	103	102	103	103	103	107	109	105	99	91	85	89	95	103	111	113	113	116	117	109	105	103	105	105	
Mean	97	94	94	94	94	94	96	98	99	95	90	85	83	86	92	100	107	110	113	113	110	106	104	100	98	
Mean *	97	98	99	99	99	100	102	102	96	88	82	79	80	86	92	96	97	98	99	99	99	98	97	98	98	
Mean **	91	76	75	75	76	81	86	92	93	92	88	90	92	101	112	122	127	133	135	125	115	112	105	97	97	
<b>October</b>		<b>43000 γ + Tabular Quantities (in γ)</b>																								
1 **	99	83	88	88	89	86	93	104	109	103	93	99	105	117	118	130	153	162	167	131	125	121	117	117	111	
2	117	116	116	115	115	117	118	114	112	108	105	104	107	113	125	129	133	142	137	131	127	119	115	111		
3	111	111	110	105	99	94	98	102	107	107	104	105	111	114	119	125	127	129	129	117	115	113	111	107		
4	107	101	100	93	81	87	89	100	107	109	107	105	101	101	105	112	115	116	115	111	111	109	107	107		
5	105	101	99	99	97	95	101	104	99	95	90	93	99	109	115	115	113	113	111	109	108	107	107	107		
6	107	107	107	107	107	107	108	107	107	103	97	97	99	105	111	122	129	132	124	121	117	110	104	99		
7 **	87	84	91	91	87	81	75	85	95	97	101	107	109	119	147	155	165	175	197	183	159	133	109	97		
8 **	87	68	56	43	49	61	73	73	85	97	107	112	113	119	131	146	159	159	161	168	165	153	140	128		
9	109	117	117	117	117	117	117	120	119	115	109	109	107	107	112	117	117	117	115	114	115	117	116	116		
10	113	112	111	110	111	110	111	113	111	105	105	109	112	111	113	113	113	114	115	115	121	119	115			
11	110	107	108	107	105	107	112	115	113	107	101	99	97	99	107	1										

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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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>November</b>																													
<b>43000 γ + Tabular Quantities (in γ)</b>																													
1	105	103	103	103	104	102	101	105	107	103	103	101	105	113	119	122	120	119	118	117	113	110	107	107	107				
2	108	109	109	109	109	109	108	108	108	104	102	100	108	110	112	116	116	115	112	111	110	108	109	110	110				
3	108	102	99	98	98	101	100	104	108	101	106	108	112	115	120	122	124	127	130	127	122	118	118	113	113				
4	108	100	102	102	104	106	102	103	106	104	100	100	104	114	122	134	144	160	164	148	139	132	122	122	118	113			
5	92	98	104	104	96	98	104	108	112	112	110	112	112	121	126	123	122	120	118	118	116	110	109	108	108	108			
6	104	102	101	100	103	106	108	112	114	108	105	101	100	104	109	112	112	112	112	111	111	110	110	106	102	102			
7	100	98	96	96	96	98	100	106	105	103	104	102	108	110	112	113	112	112	111	111	110	110	108	104	104	104			
8 *	102	102	98	98	99	100	102	108	106	100	103	105	108	110	112	112	110	111	111	111	110	110	108	108	108	108			
9	106	106	104	104	102	98	99	100	101	100	99	102	106	112	122	130	130	128	126	124	120	118	117	115	115	115			
10 *	112	110	108	106	105	106	108	109	108	104	102	102	102	104	108	108	108	109	106	106	107	106	106	106	106	106			
11 *	106	106	104	104	104	104	106	104	103	96	94	95	96	102	104	104	102	103	106	104	104	102	100	100	100	100			
12 **	100	98	100	100	100	100	100	102	102	97	97	100	99	99	106	112	116	114	116	127	127	110	91	105	105	105			
13 **	109	111	91	78	69	55	59	81	95	96	97	99	105	111	119	126	125	124	121	119	118	115	115	115	115	115	115		
14	113	113	107	105	108	109	110	110	105	103	101	104	109	116	119	120	117	119	123	120	119	118	117	112	112	112			
15	111	111	109	105	109	110	109	109	105	102	101	105	108	115	117	116	115	115	115	115	116	118	115	115	115	115			
16	116	113	111	111	111	110	109	109	107	103	100	103	105	111	113	117	122	135	132	127	137	133	125	119	119	119			
17	114	113	111	111	111	111	109	112	113	109	105	107	107	111	113	119	121	123	125	131	132	124	116	106	106	106			
18 *	113	115	115	114	114	114	115	111	108	104	99	98	98	105	109	113	115	115	115	115	113	113	111	111	111	111			
19 *	109	109	109	109	109	109	109	107	107	105	101	100	101	107	111	111	111	109	110	109	108	107	105	105	105	105			
20	102	104	104	104	104	104	104	104	102	102	102	100	99	98	102	108	110	108	110	110	108	111	113	112	100	100			
21	98	102	98	102	104	106	106	103	102	99	100	108	111	117	122	122	121	118	114	114	116	116	110	95	95	95	95		
22 **	87	88	90	94	94	88	83	89	95	96	100	112	121	120	120	122	120	116	115	116	126	123	120	112	112	112	112		
23	108	106	98	100	102	104	104	108	106	109	118	118	124	130	133	130	126	124	124	125	128	123	118	116	116	116	116		
24	113	112	114	112	112	112	114	116	117	111	108	108	108	110	114	114	114	114	114	114	116	118	115	115	115	115			
25 **	114	113	109	106	108	108	108	108	107	102	102	105	107	106	111	113	113	114	116	148	144	134	122	110	100	100	100		
26	98	102	96	83	92	96	101	102	106	111	112	114	115	120	124	124	126	125	120	116	116	116	114	113	114	114	114		
27	110	108	102	104	107	108	109	112	112	110	106	104	106	118	122	122	120	121	119	118	118	118	110	108	110	110	110		
28	110	110	110	109	109	108	110	108	106	104	100	104	105	108	112	114	112	112	112	110	110	113	108	110	110	110	110		
29 **	108	106	106	104	104	102	98	100	100	102	103	106	105	115	136	144	152	150	144	142	130	120	98	92	92	92	92		
30	101	106	106	106	109	110	114	114	112	106	108	106	111	120	125	127	128	124	124	122	120	116	114	111	111	111	111		
Mean	106	106	104	103	103	103	104	106	106	104	103	104	107	113	117	121	121	121	121	120	119	116	111	108	108	108	108	108	
Mean *	108	108	106	106	106	107	108	107	106	102	100	100	101	106	108	110	110	109	110	109	108	108	106	106	106	106	106		
Mean **	104	103	99	96	95	91	90	96	100	99	100	104	110	117	125	134	133	130	129	130	127	121	107	105	105	105	105	105	
<b>December</b>																													
1	108	110	112	110	109	109	110	110	110	108	108	111	114	116	118	120	120	120	120	122	119	118	111	110	110	110	110	110	
2	106	98	98	98	100	106	110	111	110	107	103	108	110	114	122	134	132	128	130	126	122	119	115	107	107	107	107	107	107
3	110	109	105	108	110	112	114	112	112	108	104	106	112	116	122	128	125	122	121	118	118	112	106	108	108	108	108	108	
4	106	106	105	104	106	106	108	106	103	104	104	103	107	113	115	120	122	124	124	120	114	112	110	110	110	110	110	110	
5	108	106	106	106	106	105	102	104	102	102	105	107	106	111	113	113	114	116	120	121	121	120	114	112	112	112	112	112	
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## MAGNETIC OBSERVATIONS, ABINGER 1940.

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	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	
January	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	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	Y	
1	47° 2	12 3	52° 4	41° 4	21 4	11° 0	536	17 50	558	505	20 40	53	89	21 15	98	79	3 2	19	
2	47° 6	14 5	54° 8	39° 2	2 38	15° 6	528	22 30	558	503	0 15	55	90	22 28	100	78	2 25	22	
3 **	50° 0	16 31	79° 7	36° 5	21 5	43° 2	495	5 10	551	377	15 52	174	113	16 40	256	75	6 55	181	
4	47° 5	11 31	54° 8	35° 0	20 56	19° 8	497	20 57	581	449	15 0	132	105	15 28	136	93	11 40	43	
5	47° 2	4 36	51° 7	40° 2	23 45	11° 5	522	3 32	548	485	4 16	63	90	22 20	100	75	3 57	25	
6	46° 4	13 30	55° 7	29° 5	18 51	26° 2	519	19 5	566	459	16 22	107	92	16 45	115	72	5 45	43	
7	46° 6	13 50	52° 3	29° 9	21 55	22° 4	527	22 3	605	472	14 10	133	89	14 43	111	78	2 0	35	
8	47° 5	3 51	52° 2	43° 5	22 5	8° 7	533	4 39	563	508	15 15	55	89	15 25	100	74	4 55	26	
9	46° 9	12 42	53° 1	30° 8	19 15	22° 3	530	19 20	580	500	16 12	80	92	19 25	107	82	0 12	25	
10 **	47° 6	14 7	58° 5	36° 6	20 47	21° 9	517	20 55	557	435	15 2	122	103	17 54	158	84	2 20	74	
11 **	46° 5	18 40	51° 9	25° 8	20 5	26° 1	517	20 10	593	457	21 59	136	98	19 34	126	84	8 23	42	
12	46° 2	12 18	53° 8	30° 1	21 40	23° 7	516	21 59	566	476	15 45	90	95	16 21	112	81	6 10	31	
13	47° 0	11 4	52° 2	43° 8	4 7	8° 4	527	3 25	540	507	9 48	33	91	16 20	100	84	4 15	16	
14 *	47° 0	13 15	50° 5	44° 3	23 45	6° 2	530	23 55	553	512	10 32	41	91	20 25	95	87	23 5	8	
15	46° 8	12 40	53° 3	37° 4	0 59	15° 9	533	0 0	549	518	3 8	31	87	14 30	95	80	0 25	15	
16	47° 0	12 30	54° 7	37° 9	18 15	16° 8	535	8 0	559	509	17 55	50	87	18 40	101	75	11 40	26	
17	47° 4	14 25	55° 8	38° 6	23 52	17° 2	522	5 22	558	470	14 30	88	91	19 15	115	74	3 5	41	
18 **	46° 2	13 57	57° 6	12° 2	18 32	45° 4	501	6 55	551	337	18 2	214	108	17 12	241	75	11 40	166	
19	46° 9	11 3	50° 5	45° 0	18 52	5° 5	506	19 20	525	480	0 14	45	103	9 15	109	95	23 40	14	
20	46° 8	12 46	51° 6	38° 2	19 25	13° 4	517	23 7	530	496	19 15	34	97	14 25	107	89	23 53	18	
21 *	46° 8	12 5	49° 4	44° 9	7 40	4° 5	526	4 40	534	514	15 25	20	94	13 40	100	90	22 55	10	
22	47° 7	12 35	52° 7	42° 8	18 8	9° 9	531	22 52	545	503	17 45	42	91	18 26	100	84	10 5	16	
23	47° 6	13 40	51° 8	43° 8	21 58	8° 0	538	14 27	555	505	21 57	50	89	22 20	106	81	10 2	25	
24	46° 9	17 15	55° 1	37° 1	20 28	18° 0	526	2 26	549	466	20 25	83	94	20 43	114	84	4 55	30	
25	46° 6	13 8	56° 1	40° 8	3 42	15° 3	524	3 14	546	483	14 1	63	90	17 22	105	79	11 42	26	
26 *	46° 9	13 17	51° 5	44° 2	23 0	7° 3	534	19 30	552	514	10 50	38	88	22 15	92	79	12 0	13	
27 *	47° 2	13 32	51° 5	45° 1	8 40	6° 4	539	6 42	553	516	12 2	37	88	16 35	94	79	12 3	15	
28 *	47° 3	13 22	51° 1	44° 4	22 50	6° 7	540	15 34	553	526	10 10	27	85	6 35	89	77	12 20	12	
29	48° 7	17 11	63° 1	42° 2	23 50	20° 9	530	21 14	549	476	18 44	73	93	18 58	128	84	1 20	44	
30	46° 4	12 30	54° 4	37° 5	2 35	16° 9	533	7 20	560	498	11 59	62	90	17 0	105	73	2 20	32	
31 **	46° 8	13 27	56° 1	31° 6	20 28	24° 5	531	19 48	579	466	16 35	113	93	17 0	117	79	6 22	38	
Mean	47° 1	-	54° 5	37° 8	-	16° 7	524	-	557	481	-	75° 6	93	-	117	81	-	36° 5	
Mean *	47° 0	-	50° 8	44° 6	-	6° 2	534	-	549	516	-	32° 6	89	-	94	82	-	11° 6	
Mean **	47° 4	-	60° 8	28° 5	-	32° 2	512	-	566	414	-	152	103	-	180	79	-	100° 2	
February	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	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	Y	
1 **	45° 8	14 32	55° 2	29° 8	17 26	25° 4	516	17 39	607	467	12 23	140	96	19 38	124	73	1 20	51	
2 **	47° 0	12 40	52° 1	35° 6	19 10	16° 5	522	23 48	549	494	15 10	55	96	15 25	111	74	0 42	37	
3 **	46° 4	12 32	52° 6	33° 2	17 22	19° 4	526	22 13	601	488	13 32	113	95	17 15	118	82	1 24	36	
4	46° 4	17 30	50° 7	40° 4	20 42	10° 3	530	24 0	566	506	16 18	60	93	16 35	109	84	11 5	25	
5	46° 7	12 50	50° 8	40° 9	21 22	9° 9	537	23 55	573	496	14 45	77	89	22 18	101	80	0 18	21	
6	47° 0	11 58	52° 7	36° 7	20 38	16° 0	535	0 0	572	507	20 25	65	91	20 30	112	76	0 23	36	
7	46° 9	12 40	52° 5	40° 5	1 4	12° 0	533	1 23	580	508	13 50	72	89	21 0	102	67	1 56	35	
8	46° 5	13 3	52° 6	38° 0	20 33	14° 6	533	1 18	552	507	21 16	45	89	20 30	103	76	10 5	27	
9	46° 1	13 20	51° 1	39° 0	1 6	12° 1	532	23 40	557	511	3 33	46	87	15 20	98	79	24 0	19	
10	46° 1	13 0	51° 6	39° 2	22 55	12° 6	533	17 5	552	511	22 2	41	87	22 20	97	75	11 30	23	
11	45° 7	14 6	52° 6	35° 2	23 30	17° 4	532	5 0	554	483	23 20	71	85	19 30	99	72	10 10	27	
12 **	46° 4	13 8	54° 1	38° 2	0 15	15° 9	531	20 20	560	494	15 50	66	89	16 25	114	98	70	10 55	28
13	47° 4	12 25	54° 7	39° 1	20 25	15° 6	540	1 32	563	522	20 59	41	83	20 45	135	98	70	10 55	28
14 *	46° 6	11 0	50° 8	43° 7	23 55	7° 1	539	8 15	553	519	12 0	34	83	18 25	90	75	12 0	15	
15	47° 5	13 2	53° 7	43° 7	0 5	10° 0	541	20 10	556	516	13 30	40	83	15 30	93	70	11 30	23	
16	46° 4	11 12	49° 9	41° 2	20 5	8° 7	541	20 41	563	520	16 53	43	83	20 20	92	71	11 30	21	
17 *	46° 7	12 10	49° 5	45° 0	5 55	4° 5	542	6 40	553	524	11 55	29	84	9 40	88	75	14 10	13	
18 *	46° 5	12 45	48° 5	45° 3	9 30	3° 2	545	7 55	554	537	20 0	17	81	18 35	86	70	13 5	16	
19 *	46° 4	17 0	48° 6	43° 7	23 50	4° 9	548	22 10	563	534	10 20	29	80	22 10	86	73	13 50		

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	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum			
March	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m			
1	46° 8	12 5	51° 6	44° 4	8 50	7° 2	540	6 20	566	512	12 35	54	88	15 35	95	79	10 57	16
2	46° 6	14 5	51° 8	42° 7	9 25	9° 1	543	20 10	560	520	10 59	40	86	18 25	92	73	12 58	19
3	46° 5	13 8	51° 8	39° 9	21 29	11° 9	541	21 30	566	515	10 20	51	84	16 25	94	77	11 15	17
4	47° 0	13 25	53° 2	41° 8	23 35	11° 4	546	23 13	577	532	14 5	45	82	16 20	88	71	10 55	17
5	46° 6	13 58	52° 1	42° 7	0 25	9° 4	543	22 25	554	530	11 15	24	83	16 30	89	79	11 40	10
6 *	46° 8	12 50	52° 0	42° 9	8 40	9° 1	548	20 23	568	527	9 56	41	81	8 0	86	76	11 50	10
7 *	46° 2	13 55	53° 2	41° 6	9 30	11° 6	546	19 40	561	519	11 55	42	82	16 25	88	70	11 2	18
8	44° 5	12 10	50° 0	30° 8	23 46	19° 2	541	19 45	560	497	{ 22 11 } 511	63	84	22 0	96	73	11 40	23
9	44° 6	14 40	52° 3	30° 4	1 28	21° 9	522	{ 1 28 } 553	483	3 5	70	81	17 30	106	49	5 30	57	
10	45° 6	13 10	51° 7	41° 7	3 27	10° 0	535	17 52	553	518	1 34	35	89	15 30	96	78	10 10	18
11 *	46° 5	14 50	52° 6	42° 6	9 10	10° 0	538	20 25	554	518	10 30	36	88	15 48	98	77	11 45	21
12	45° 8	13 45	53° 7	34° 0	22 45	19° 7	534	22 55	578	464	20 45	114	93	20 20	144	71	22 39	73
13	46° 2	14 40	52° 7	39° 8	22 48	12° 9	528	22 52	549	500	11 28	49	92	16 30	106	82	3 0	24
14	46° 3	14 40	52° 9	41° 5	19 50	11° 4	531	6 2	554	509	{ 1 38 } 45	90	18 25	104	73	12 45	31	
15 *	46° 2	13 55	52° 5	42° 1	9 0	10° 4	537	21 7	552	508	11 20	44	88	7 45	97	75	12 50	22
16	46° 2	13 50	54° 3	41° 4	8 50	12° 9	536	7 30	552	511	10 50	41	90	21 20	106	75	12 30	31
17	46° 1	13 48	52° 7	41° 1	9 20	11° 6	537	6 55	556	501	10 40	55	89	8 10	97	77	12 40	20
18 *	46° 3	12 55	52° 5	40° 1	8 45	12° 4	548	22 10	565	521	10 15	44	86	7 40	96	75	12 45	21
19	45° 6	16 0	58° 9	34° 4	23 36	24° 5	536	2 15	569	491	19 20	78	95	18 25	139	73	12 50	66
20	43° 8	14 10	56° 3	33° 4	0 15	22° 9	518	23 47	593	449	11 45	144	92	18 25	109	68	4 0	41
21	45° 3	14 15	54° 3	39° 8	1 20	14° 5	533	5 12	551	503	10 0	48	87	19 30	96	72	0 40	24
22	45° 1	12 37	53° 4	36° 6	20 24	16° 8	535	0 10	578	505	10 40	73	83	21 10	105	58	12 55	47
23	45° 5	23 56	57° 4	26° 0	23 35	31° 4	526	7 40	575	412	24 0	163	84	17 30	113	7	23 59	106
24 **	-	18 6	121° 7	-9° 3	21 37	131° 0	-	16 48	1220	-120	21 20	1340	-	18 13	719	-118	21 13	837
25 **	-	1 25	95° 0	9° 0	3 5	86° 0	-	0 58	630	-150	0 33	780	-	12 44	212	-281	0 32	493
26	41° 9	6 19	49° 4	15° 2	19 33	34° 2	469	19 41	589	379	0 1	210	113	19 40	148	42	1 22	106
27	45° 1	14 0	54° 4	30° 3	21 25	24° 1	497	21 35	563	433	9 21	130	105	17 25	138	67	2 15	71
28	45° 1	13 50	53° 5	37° 1	8 51	16° 4	504	20 8	567	459	11 15	108	107	16 42	133	71	2 13	62
29 **	43° 4	17 12	67° 2	-3° 3	23 44	70° 5	500	16 21	812	288	23 27	524	149	17 20	401	52	23 27	349
30 **	39° 5	16 0	61° 2	7° 4	4 23	53° 8	430	18 54	639	172	4 9	467	101	16 3	327	-150	4 17	477
31 **	41° 4	14 10	64° 0	8° 3	10 24	55° 7	449	16 40	644	26	10 17	618	136	16 39	299	17	1 42	282
Mean	45° 3	-	57° 8	31° 8	-	25° 9	524	-	600	420	-	179° 9	93	-	152	42	-	110° 0
Mean *	46° 4	-	52° 6	41° 9	-	10° 7	543	-	560	519	-	41° 4	85	-	93	75	-	18° 4
Mean **	( )	-	81° 8	2° 4	-	79° 4	( )	-	789	43	-	745° 8	( )	-	392	-96	-	487° 6
April	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	/	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	Y	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	
1 **	44° 7	2 8	54° 2	36° 8	19 30	17° 4	472	22 0	558	359	9 50	199	111	15 52	149	53	0 22	96
2 **	41° 9	12 45	50° 7	24° 1	20 47	26° 6	502	19 10	643	449	21 20	194	112	19 10	152	68	23 28	84
3 **	44° 4	20 36	57° 6	14° 7	2 8	42° 9	493	2 28	621	384	6 38	237	87	20 9	184	-36	4 45	200
4	44° 0	15 12	49° 6	39° 1	18 30	10° 5	510	21 32	558	462	10 0	96	116	18 20	124	106	22 0	18
5	44° 3	14 15	51° 0	38° 4	8 0	12° 6	520	20 50	558	489	10 20	69	105	18 25	118	87	12 55	31
6	45° 0	0 40	50° 8	40° 9	9 0	9° 9	520	0 38	558	481	10 30	77	101	19 20	108	90	13 0	18
7 *	45° 0	13 45	52° 2	38° 9	8 40	13° 3	525	19 18	545	492	11 30	53	103	17 58	110	84	12 50	26
8 *	44° 6	13 25	51° 8	38° 1	8 45	13° 7	532	15 50	549	501	10 40	48	104	16 40	117	84	12 50	33
9 *	45° 2	13 40	53° 5	39° 3	8 45	14° 2	533	6 40	548	507	10 25	41	102	17 20	112	79	11 40	33
10 *	45° 1	13 0	52° 6	39° 0	8 40	13° 6	535	17 40	553	501	10 30	52	97	6 40	109	74	11 45	35
11	45° 0	13 20	54° 5	39° 1	9 15	15° 4	542	16 0	572	513	10 40	59	97	7 40	107	77	12 0	30
12 *	45° 1	13 0	52° 4	39° 1	8 0	13° 3	540	16 30	556	507	12 40	49	94	7 0	104	69	11 50	35
13	45° 5	14 30	57° 4	39° 4	8 45	18° 0	539	6 10	566	500	15 0	66	95	17 30	109	68	10 55	41
14	45° 5	14 5	52° 7	40° 2	6 25	12° 5	532	5 0	561	494	11 57	67	95	17 35	116	70	12 5	46
15	44° 1	14 25	55° 3	37° 2	7 10	18° 1	533	23 28	566	502	13 40	64	99	15 40	124	75	10 50	49
16	44° 5	12 30	52° 9	37° 2	1 52	15° 7	526	1 0	558	494	10 35	64	94	18 15	119	74	12 50	45
17	45° 4	12 50	52° 7	40° 7	5 55	12° 0	529	19 5	548	505	11 40	43	97	19 0	111	79	12 0	32
18	44° 8	13 22	52° 9	40° 2	6 20	12° 7	536	23 30	561	515	10 35	46	97	17 40	107	75	11 50	32
19	44° 0	13 25	53° 0	37° 3	4 40	15° 7	538	15 38	557	516	9 40	41	100	18 30	111	83	11 50	28
20	44° 8	14 12	52° 9	35° 3	8 0	17° 6	548	1										

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	/	Mean Daily Value	Maximum	Minimum	Range	/	Mean Daily Value	Maximum	Minimum	Range	/			
May	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	43000 Y +	U.T. h m	43000 Y +	43000 Y +		
1	43.2	13 20	51.9	35.7	7 5	16.2	535	17 25	559	521	14 10	38	94	18 30	109	67	12 0	42
2	44.0	13 35	52.9	37.6	6 50	15.3	534	15 35	548	515	9 55	33	94	18 25	109	71	11 45	38
3 *	44.6	13 25	50.4	38.7	7 15	11.7	537	19 50	551	514	10 42	37	96	17 45	105	73	11 20	32
4 *	43.9	12 30	49.7	37.6	6 20	12.1	536	23 58	569	515	8 30	54	93	17 30	105	67	11 5	38
5	44.1	12 40	50.6	37.9	8 25	12.7	539	0 0	568	508	8 30	60	93	17 50	103	71	11 35	32
6 *	45.5	12 55	53.7	40.5	7 20	13.2	548	16 3	565	528	10 35	37	93	18 25	101	67	12 0	34
7	44.5	12 55	50.8	38.0	7 10	12.8	542	0 53	566	518	7 30	48	93	18 20	106	68	11 50	38
8	44.4	13 5	52.5	37.7	6 45	14.8	542	3 20	565	510	8 30	55	91	18 20	102	66	11 40	38
9	45.1	13 20	53.8	38.7	5 45	15.1	541	1 22	570	506	14 36	64	90	17 25	106	68	10 40	38
10	44.0	13 5	54.3	33.6	21 17	20.7	549	21 4	591	523	13 40	68	89	17 50	117	53	11 40	64
11	44.4	12 18	53.3	38.3	6 55	15.0	538	20 0	587	502	8 55	85	87	18 30	112	63	11 30	49
12	43.9	13 30	51.6	34.9	23 40	16.7	533	18 50	569	493	13 50	76	93	19 10	115	74	12 30	41
13	43.2	14 0	53.0	36.0	21 9	17.0	537	17 4	578	509	14 30	69	94	19 20	114	71	12 0	43
14	43.7	12 40	51.7	36.3	6 0	15.4	535	16 26	570	499	8 35	71	94	19 30	110	73	11 55	37
15	44.0	12 50	50.2	36.4	23 32	13.8	539	17 58	581	511	10 35	70	92	20 0	118	68	11 40	50
16	42.9	12 5	48.2	35.1	1 44	13.1	538	18 0	564	509	{ 1 44	55	90	20 10	104	63	10 40	41
17	43.8	13 55	50.1	37.1	19 26	13.0	548	19 50	587	522	12 36	65	89	19 35	118	62	11 40	56
18 **	42.7	13 10	53.1	31.6	{ 8 18	21.5	522	5 57	569	429	13 21	140	92	18 10	128	56	8 0	72
19	43.7	13 10	50.7	37.1	7 15	13.6	527	21 25	590	493	8 0	97	97	17 45	113	77	12 10	36
20	44.4	14 15	52.5	37.6	7 30	14.9	539	15 55	571	513	15 17	58	96	17 25	126	67	11 15	59
21	44.2	13 40	50.7	37.6	5 55	13.1	545	19 10	572	515	10 40	57	92	17 10	107	65	10 55	42
22 **	45.5	4 20	51.9	39.0	8 35	12.9	526	2 2	592	451	10 10	141	95	17 30	131	61	3 54	70
23 **	43.9	13 20	52.5	29.7	20 23	22.8	547	17 57	676	510	10 25	166	98	17 57	140	76	11 50	64
24 **	44.8	4 24	60.9	30.8	7 18	30.1	526	4 34	615	323	9 59	292	98	18 14	163	43	9 59	120
25	43.5	14 5	50.0	36.6	7 0	13.4	529	17 52	600	495	10 12	105	99	17 45	126	77	11 15	49
26 **	43.3	12 22	49.1	35.1	22 56	14.0	538	18 28	611	493	23 50	118	94	18 20	139	62	12 30	77
27	43.0	14 5	51.7	28.8	0 52	22.9	532	23 4	583	488	10 15	95	88	18 20	114	49	0 44	65
28	43.5	14 40	52.1	36.8	8 25	15.3	538	19 10	580	481	11 55	99	93	17 55	122	70	4 30	52
29	43.7	14 5	50.0	36.7	6 40	13.3	540	17 35	584	506	9 15	78	95	19 15	112	78	11 50	34
30 *	43.6	13 50	49.7	36.8	7 40	12.9	542	19 30	566	519	9 40	47	97	17 40	106	80	11 45	26
31 *	44.0	13 40	48.9	38.7	7 5	10.2	543	17 50	561	526	10 10	35	94	16 40	107	72	11 5	35
Mean	44.0	-	51.7	36.2	-	15.5	538	-	579	498	-	81.1	93	-	116	67	-	48.7
Mean *	44.3	-	50.5	38.5	-	12.0	541	-	562	520	-	42.0	95	-	105	72	-	33.0
Mean **	44.0	-	53.5	33.2	-	20.3	532	-	613	441	-	172.2	95	-	140	60	-	80.6
June	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	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	Y
1 *	44.0	13 30	49.3	38.9	5 30	10.4	547	18 0	570	522	8 55	48	91	16 35	103	63	11 5	40
2	44.0	13 20	53.4	36.1	4 53	17.3	542	18 10	566	506	11 40	60	92	17 30	117	63	11 35	54
3	43.9	12 38	51.7	37.3	6 23	14.4	541	20 8	566	507	13 39	59	92	17 45	105	74	11 20	31
4 *	44.4	13 0	51.8	38.4	6 10	13.4	550	21 0	570	530	10 0	40	91	16 55	105	65	10 55	40
5	44.8	12 50	53.4	37.3	8 12	16.1	555	21 14	596	516	8 2	80	92	18 10	104	67	11 40	37
6 **	43.5	12 20	56.8	30.6	2 30	26.2	530	0 43	583	464	9 10	119	93	18 25	143	52	8 40	91
7 **	43.4	13 50	55.2	34.6	3 23	20.6	529	24 0	579	448	9 37	131	93	18 25	124	55	3 54	69
8	42.6	13 55	53.0	34.4	22 21	18.6	532	19 40	589	487	8 35	102	97	19 40	122	72	1 50	50
9	43.3	13 50	53.1	33.5	7 50	19.6	534	18 52	609	467	9 43	142	95	18 50	124	72	10 50	52
10	43.1	13 50	50.5	33.9	7 4	16.6	537	20 5	559	508	7 25	51	93	5 20	105	68	11 45	37
11 *	43.8	13 50	52.9	36.7	8 15	16.2	549	17 10	575	516	11 30	59	96	17 25	112	73	11 30	39
12	43.5	14 45	51.9	35.7	8 10	16.2	548	19 40	581	513	12 15	68	93	5 20	104	69	12 50	35
13	43.6	12 20	49.6	38.4	6 10	11.2	558	22 35	581	531	12 30	50	93	7 55	104	71	13 5	33
14 **	42.6	14 30	54.2	27.8	23 30	26.4	554	16 57	655	463	23 19	192	95	18 10	142	66	23 20	76
15 **	44.2	4 35	52.2	31.5	1 3	20.7	518	19 0	566	462	9 45	104	95	16 35	144	51	4 55	93
16	42.8	14 2	50.0	35.2	7 25	14.8	538	21 10	574	487	8 20	87	96	20 30	110	85	1 53	25
17	43.8	12 15	49.4	37.2	5 10	12.2	536	17 30	567	494	14 40	73	98	17 27	127	81	11 45	46
18	44.1	14 40	49.3	35.3	6 43	14.0	536	19 15	571	478	6 21	93	98	16 30	124	67	6 22	57
19	43.7	14 50	50.3	35.6	8 12	14.7	538	19 0	566	490	12 40	76	100	17 45	125	79	10 55	46
20 *	43.3	13 25	49.4	35.3	7 25	14.1	538	18 5	571	494	11 15	77	99	17 55	113	84	12 35	29
21 *	43.4	13 20	51.7	36.4	8 30	15.3	543	19 50	567	507	12 35	60						

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	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum
July	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	43000 Y +	U.T. h m	43000 Y +
1	42° 3	2 11	49° 9	35° 6	7 20	14° 3	540	16 50	567	498	10 35	69	102	17 25	118	83	11 50	35
2 *	43° 1	12 40	48° 2	36° 5	7 25	11° 7	546	18 50	564	534	12 45	30	102	17 25	115	78	12 0	37
3	42° 3	13 43	50° 8	32° 6	23 32	18° 2	548	19 54	591	515	13 15	76	100	19 0	121	67	12 8	54
4 **	41° 2	13 4	51° 6	31° 5	23 27	20° 1	533	23 37	573	480	10 25	93	96	19 38	123	69	0 30	54
5	41° 8	14 55	51° 5	34° 4	8 15	17° 1	537	19 10	598	497	10 12	101	101	19 10	122	74	11 48	48
6	42° 0	14 30	52° 7	34° 4	6 55	18° 3	537	19 20	582	488	12 35	94	95	19 20	119	67	12 30	52
7	42° 6	13 50	49° 9	35° 9	7 15	14° 0	538	18 9	588	502	9 30	86	101	18 10	125	79	13 5	48
8	43° 3	15 0	51° 0	36° 7	6 30	14° 3	541	23 20	609	498	10 30	111	99	18 20	114	79	11 40	35
9	44° 0	14 40	52° 7	36° 5	5 50	16° 2	552	18 22	614	508	12 40	106	95	18 28	117	70	11 45	47
10 **	43° 8	15 20	50° 6	35° 2	22 50	15° 4	539	1 12	589	453	11 5	136	100	18 0	136	79	4 15	57
11	42° 5	14 10	50° 7	34° 3	7 24	16° 4	536	17 30	566	483	12 30	73	96	18 25	119	73	11 50	46
12	42° 9	14 0	48° 8	37° 8	8 10	11° 0	542	19 5	570	512	10 25	58	99	18 20	110	83	12 18	27
13 **	43° 6	13 55	58° 4	34° 5	18 42	23° 9	531	11 59	609	432	14 51	177	111	18 10	170	58	11 40	112
14 **	42° 6	13 54	51° 6	33° 1	7 53	18° 5	523	17 52	581	487	10 35	114	107	16 25	137	83	4 15	54
15	42° 1	13 40	50° 5	34° 4	6 49	16° 1	531	18 55	575	484	10 40	91	106	17 25	134	86	2 50	48
16	42° 9	14 5	51° 4	35° 3	6 45	16° 1	534	17 5	563	495	9 12	68	102	18 27	123	85	11 35	38
17 *	41° 7	14 20	46° 7	36° 1	7 40	10° 6	540	15 50	570	510	10 35	60	106	17 40	119	95	12 45	24
18 *	43° 1	14 0	50° 6	36° 6	7 10	14° 0	546	21 5	565	525	9 40	40	100	17 25	112	79	12 10	33
19	42° 4	14 0	50° 6	34° 3	7 35	16° 3	546	20 52	573	519	9 45	54	100	18 0	110	85	10 50	25
20 *	43° 0	14 0	51° 0	36° 4	6 50	14° 6	549	17 25	579	511	9 55	68	97	18 20	109	72	13 0	37
21	42° 5	15 6	51° 6	36° 4	7 55	15° 2	550	18 10	593	507	11 40	86	99	18 15	123	75	11 10	48
22	43° 3	13 40	52° 0	36° 2	6 15	15° 8	541	16 50	578	493	7 0	85	101	17 50	125	80	8 40	45
23	41° 8	12 50	48° 5	35° 6	7 10	12° 9	541	16 45	578	512	12 10	66	98	17 45	112	74	11 15	38
24	42° 2	15 0	47° 9	36° 7	7 50	11° 2	539	23 50	579	496	9 40	83	101	17 40	118	86	12 0	32
25	41° 8	13 50	47° 9	35° 9	1 8	12° 0	538	17 8	575	487	10 18	88	94	18 20	107	73	11 30	34
26	41° 9	14 20	49° 4	35° 1	7 0	14° 3	544	0 40	571	510	11 15	61	98	17 40	108	85	12 0	23
27 *	42° 6	14 5	48° 3	36° 6	7 0	11° 7	554	21 5	577	529	11 25	48	93	16 25	102	69	12 30	33
28	42° 6	14 35	48° 9	35° 7	7 30	13° 2	549	0 25	574	512	11 5	62	94	18 20	106	81	12 55	25
29	42° 0	13 40	49° 4	35° 0	7 40	14° 4	556	18 48	587	529	11 0	58	93	21 10	105	69	12 20	36
30 **	42° 2	14 17	53° 9	34° 2	3 40	19° 7	555	19 10	609	506	10 12	103	95	19 10	114	73	12 38	41
31	42° 3	12 50	50° 1	36° 1	7 57	14° 0	537	19 28	575	495	9 25	80	94	16 25	112	77	3 20	35
Mean	42° 5	-	50° 5	35° 3	-	15° 2	542	-	581	500	-	81° 5	99	-	119	77	-	41° 9
Mean *	42° 7	-	49° 0	36° 4	-	12° 5	547	-	561	522	-	49° 2	100	-	111	79	-	32° 8
Mean **	42° 7	-	53° 2	33° 7	-	19° 5	536	-	592	468	-	124° 6	102	-	136	72	-	63° 6
August	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	/	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	Y	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	Y
1	42° 2	13 5	50° 9	35° 0	7 0	15° 9	544	2 8	576	503	9 25	73	96	17 35	115	69	2 38	46
2	42° 3	13 25	52° 9	33° 2	19 38	19° 7	544	18 54	614	508	9 10	106	97	19 45	122	74	12 40	48
3 **	44° 2	14 43	55° 7	36° 8	3 17	18° 9	532	16 64	612	434	15 10	178	112	16 54	173	81	11 0	92
4	43° 0	12 55	50° 0	37° 1	20 16	12° 9	536	20 45	571	483	9 30	88	101	15 35	113	83	11 5	30
5	42° 8	13 45	51° 6	35° 1	7 30	16° 5	540	21 13	573	492	10 0	81	102	17 45	113	88	10 30	25
6 **	41° 9	13 40	50° 8	34° 2	23 40	16° 6	538	20 58	608	479	10 40	129	99	16 40	120	76	11 55	44
7	42° 5	13 55	50° 1	37° 2	6 20	12° 9	532	16 50	569	470	9 22	99	104	18 25	134	85	0 15	49
8	41° 9	13 50	47° 2	37° 6	5 15	9° 6	533	1 45	572	491	9 32	81	100	17 35	116	80	11 40	36
9 **	41° 8	18 54	50° 9	27° 7	19 26	23° 2	530	18 46	628	451	10 46	177	115	18 45	170	87	9 20	83
10	42° 7	12 40	50° 0	37° 5	6 5	12° 5	530	18 45	560	502	10 10	58	107	18 30	125	81	12 15	44
11 **	42° 1	13 8	47° 2	35° 2	23 30	12° 0	538	19 20	575	495	9 18	80	105	17 5	131	89	11 50	42
12	42° 4	13 20	50° 9	35° 0	5 0	15° 0	537	23 50	564	502	10 25	62	97	17 45	124	76	11 15	48
13	43° 0	13 30	50° 1	36° 5	7 36	13° 6	537	17 57	564	505	9 55	59	98	17 57	120	78	9 40	42
14	43° 1	13 40	51° 2	36° 5	7 35	14° 7	538	23 45	564	496	9 48	68	97	18 10	113	76	10 40	37
15 *	41° 9	14 45	48° 5	35° 2	7 25	13° 3	538	22 50	561	503	8 40	58	96	7 0	108	77	12 20	31
16 *	42° 3	13 10	50° 2	35° 5	7 0	14° 7	543	20 10	562	505	10 0	57	91	6 35	100	71	11 40	29
17 *	42° 9	13 25	52° 9	36° 3	6 55	16° 6	547	21 5	564	523	8 0	41	90	18 25	146	67	11 0	79
18	43° 5	17 10	52° 9	36° 3	8 0	16° 6	553	17 5	623	523	10 30	100	101	18 25	146	67	11 0	79
19	42° 1	12 40	52° 2	35° 8	6 25	16° 4	533	19 55</td										

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	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum
September	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	U.T. h m	Y	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	U.T. h m
1 **	42° 2	13 12	57° 3	33° 4	1 35	23° 9	526	1 28	557	487	11 34	70	100	15 30	135	70	2 10	65
2	42° 4	13 30	53° 5	34° 7	7 22	18° 8	529	18 0	564	487	10 18	77	104	17 58	127	88	10 0	44
3	41° 3	12 20	52° 0	33° 6	1 20	18° 4	525	22 29	568	486	10 0	82	100	17 25	131	74	1 5	57
4	41° 2	12 55	51° 1	33° 5	21 15	17° 6	525	1 17	570	480	10 10	110	100	16 12	118	81	1 40	37
5	41° 5	13 15	51° 1	34° 8	7 50	16° 3	529	1 5	555	484	10 57	71	102	16 0	118	87	10 55	31
6	41° 6	13 25	48° 3	35° 7	21 40	12° 6	536	21 40	566	495	10 40	71	99	17 10	109	75	10 40	34
7 **	41° 0	13 40	51° 7	29° 9	2 15	21° 8	523	21 18	578	459	10 21	119	92	15 25	129	59	4 30	70
8	41° 8	13 20	52° 4	36° 3	7 40	16° 1	524	24 0	562	466	11 5	96	105	17 25	141	88	12 3	58
9	40° 5	13 5	50° 2	33° 2	23 13	17° 0	527	0 15	576	480	11 10	96	101	18 7	135	79	3 6	56
10 *	41° 2	12 55	47° 7	36° 4	7 55	11° 3	531	21 15	551	501	10 40	50	98	7 40	111	73	11 55	38
11	43° 1	12 40	53° 1	37° 8	8 5	15° 3	536	21 10	556	501	10 20	55	98	17 45	111	70	11 35	41
12 *	42° 0	12 50	49° 1	37° 6	7 22	11° 5	542	21 50	559	520	10 10	39	97	20 15	106	83	12 5	20
13	42° 4	12 30	49° 5	36° 4	7 40	13° 1	550	18 2	573	519	9 40	54	93	16 25	100	74	10 52	26
14	41° 9	12 30	51° 0	34° 7	18 38	16° 3	549	4 5	577	492	19 15	85	94	19 45	127	76	11 10	51
15	40° 9	12 40	49° 1	34° 4	18 15	14° 7	535	18 20	556	497	8 43	59	101	18 40	114	90	9 20	24
16	42° 0	14 15	53° 3	35° 1	7 30	18° 2	533	13 53	564	497	15 3	67	100	15 25	123	81	11 35	42
17 *	41° 6	13 10	47° 1	35° 7	7 45	11° 4	543	19 40	564	512	9 25	52	96	5 45	107	70	11 5	37
18	41° 5	12 45	49° 5	34° 3	8 30	15° 2	544	23 0	573	505	10 18	68	94	18 33	102	76	12 5	26
19 *	41° 2	14 20	46° 7	35° 7	8 5	11° 0	545	0 0	564	514	10 22	50	91	6 20	101	69	11 3	32
20	42° 8	13 10	54° 8	34° 4	8 6	20° 4	546	14 56	580	504	10 34	76	91	17 25	110	56	11 5	54
21	41° 9	12 55	53° 7	32° 4	7 55	21° 3	537	2 25	562	491	10 41	71	92	18 20	108	61	11 22	47
22	41° 9	13 35	50° 2	36° 1	7 45	14° 1	536	18 30	565	491	9 48	74	96	17 50	108	78	12 25	30
23 *	41° 6	13 30	47° 8	36° 4	8 20	11° 4	540	18 35	557	515	11 15	42	94	7 30	103	80	11 10	23
24	41° 4	14 0	47° 6	36° 1	8 45	11° 5	539	20 55	563	504	11 10	59	94	7 50	104	76	11 10	28
25	41° 0	14 25	52° 4	31° 6	22 28	20° 9	538	22 3	586	477	11 30	109	100	18 0	130	82	11 30	48
26 **	39° 3	23 6	53° 0	2° 6	19 36	50° 4	523	17 17	637	407	19 29	230	107	18 35	176	77	12 38	99
27 **	38° 2	0 56	46° 4	23° 1	2 6	23° 3	506	20 2	587	468	18 5	119	98	17 48	145	37	1 32	108
28 **	40° 4	12 23	47° 5	30° 0	17 40	17° 5	512	18 45	583	473	6 44	110	102	17 42	160	63	4 27	97
29	40° 8	13 2	48° 1	36° 0	9 5	12° 1	519	20 39	576	483	14 7	93	106	15 35	119	95	2 25	24
30	40° 6	12 50	48° 3	29° 9	20 45	18° 4	529	20 57	556	504	10 25	52	104	18 53	123	80	11 25	43
Mean	41° 4	-	50° 5	33° 1	-	17° 4	533	-	569	489	-	80° 2	98	-	121	75	-	46° 3
Mean *	41° 5	-	47° 7	36° 4	-	11° 3	540	-	559	512	-	46° 6	95	-	105	75	-	30° 0
Mean **	40° 2	-	51° 2	23° 8	-	27° 4	518	-	588	459	-	129° 6	100	-	149	61	-	87° 8
October	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	/	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	Y	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	U.T. h m
1 **	40° 8	14 18	54° 5	18° 6	19 37	35° 9	513	0 45	588	437	19 34	151	122	18 11	189	81	1 23	108
2	40° 1	12 23	48° 0	33° 4	21 45	14° 6	509	22 25	530	478	11 5	52	119	17 15	143	101	11 5	42
3	41° 7	13 15	50° 6	23° 4	18 17	27° 2	518	18 32	579	463	10 38	116	111	18 20	137	92	5 15	45
4	40° 5	13 40	47° 2	36° 3	3 17	10° 9	527	5 3	554	494	9 45	60	104	17 50	118	78	3 15	40
5	41° 9	14 16	50° 5	36° 8	8 10	13° 7	532	0 40	557	500	10 15	57	104	16 0	116	88	12 0	28
6	41° 4	13 40	51° 7	26° 3	21 32	25° 4	531	21 40	552	490	16 45	62	110	17 40	134	94	11 0	40
7 **	41° 3	15 52	53° 1	13° 6	21 2	39° 5	506	5 48	583	422	20 55	161	118	18 13	203	75	6 20	128
8 **	39° 5	13 35	50° 0	18° 3	1 48	31° 7	498	23 30	605	449	9 40	156	111	19 20	174	34	3 42	140
9	40° 6	13 0	46° 8	32° 1	0 5	14° 7	523	0 8	556	498	11 50	58	115	8 0	122	104	13 12	18
10	40° 3	13 50	46° 8	31° 9	22 5	14° 9	527	7 45	551	495	13 17	56	112	21 40	123	104	10 50	19
11	40° 7	14 5	47° 4	35° 8	8 30	11° 6	532	23 50	575	509	11 25	66	108	17 0	116	96	24 0	20
12	40° 0	14 0	47° 5	30° 3	0 25	17° 2	539	19 20	559	497	11 52	62	101	22 5	114	89	11 40	25
13 *	40° 5	12 25	46° 4	36° 0	8 40	10° 4	536	6 25	552	503	10 35	49	103	7 35	112	93	11 20	19
14 *	40° 9	13 50	47° 0	35° 1	9 3	11° 9	539	20 5	559	505	10 50	54	104	7 45	110	92	11 5	18
15	40° 5	13 25	48° 1	36° 3	18 30	11° 8	541	3 26	571	494	9 48	77	102	19 0	114	85	11 15	29
16	41° 3	13 15	48° 7	28° 8	18 34	19° 9	536	18 45	571	497	19 18	74	109	18 42	133	90	12 25	43
17	40° 7	14 15	47° 6	33° 2	23 28	14° 4	543	23 10	569	521	10 40	48	105	16 5	111	93	13 30	18
18	40° 4	14 0	49° 9	34° 3	22 5	15° 6	541	17 40	567	514	11 42	53	103	21 25	122	87	11 0	35
19	41° 0	12 48	49° 1	36° 1	22 46	13° 0	532	21 0	594	479	9 8	115	107	16 25	121	95	22 10	26
20	40° 5	12 15	46° 1	31° 2	23 21	14° 9	536	2 20	556	506	10 11							

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	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum	Range	Mean Daily Value	Maximum	Minimum			
November	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m			
1	41.1	11 50	48.1	38.3	5 5	9.8	535	5 30	569	500	12 15	69	109	15 30	124	99	11 10	25
2	40.6	13 25	44.8	35.3	23 50	9.5	536	6 30	550	505	11 20	45	108	15 35	117	95	11 15	22
3	40.6	14 15	48.5	34.8	1 8	13.7	524	6 5	567	488	10 50	79	111	19 15	130	93	10 20	37
4	40.3	17 17	51.4	29.3	21 12	22.1	518	6 30	573	453	18 20	120	118	18 30	170	97	10 45	73
5	39.4	3 57	45.8	30.3	0 2	15.5	526	20 40	566	487	11 20	79	111	14 20	128	90	0 33	38
6	40.1	13 10	44.7	35.5	19 15	9.2	536	21 15	565	507	12 55	58	107	8 10	118	98	13 0	20
7	40.5	13 22	46.1	37.4	21 35	8.7	539	6 40	566	484	11 45	82	105	15 30	117	95	3 0	22
8 *	40.2	13 0	44.2	37.1	1 50	7.1	541	23 45	552	518	12 30	34	106	15 30	114	95	2 41	19
9	40.6	16 35	48.9	34.5	23 12	14.4	532	7 10	566	491	13 30	75	111	16 5	134	96	5 35	38
10 *	39.7	12 50	42.6	36.4	0 10	6.2	539	22 45	554	523	10 30	31	106	0 0	113	98	10 20	15
11 *	40.3	12 20	43.5	37.1	23 15	6.4	549	6 5	561	531	12 45	30	102	18 40	108	92	12 0	16
12 **	39.7	12 38	48.4	19.8	24 0	28.6	529	21 32	588	482	23 15	126	105	21 17	133	80	22 3	53
13 **	37.6	14 55	49.5	15.9	0 10	33.6	509	21 0	541	450	3 20	91	102	16 30	131	40	5 26	91
14	38.9	12 33	45.4	32.0	23 0	13.4	524	22 24	570	495	12 43	75	112	22 20	131	99	10 40	32
15	39.5	11 16	44.9	31.1	21 19	13.8	532	21 15	551	513	11 35	38	111	21 28	121	96	11 33	25
16	38.4	16 10	45.1	27.7	0 30	17.4	529	18 25	576	466	16 40	110	116	18 20	142	98	10 32	44
17	39.2	17 30	48.2	25.0	19 36	23.2	529	22 28	591	455	19 30	136	115	19 43	141	103	23 10	38
18 *	39.1	15 0	41.9	32.7	0 0	9.2	533	20 15	549	505	0 16	44	111	17 55	118	95	12 0	23
19 *	40.0	13 25	43.0	37.2	9 46	5.8	550	19 13	567	531	9 2	36	107	14 35	113	98	11 40	15
20	39.4	16 10	43.7	27.0	23 38	16.7	548	7 50	569	514	24 0	55	105	21 40	115	95	13 0	20
21	39.0	12 33	46.1	26.2	0 11	19.9	527	7 0	576	486	10 5	90	109	15 50	125	76	23 55	49
22 **	39.0	5 38	48.4	22.8	21 2	25.6	522	5 58	576	467	10 35	109	107	21 2	137	76	0 5	61
23	40.0	6 45	47.1	31.5	20 22	15.6	511	2 1	551	450	9 29	101	116	13 50	135	96	2 23	39
24	39.3	12 45	44.2	29.8	21 52	14.4	531	21 59	544	519	1 40	25	113	21 55	121	105	10 32	16
25 **	39.7	14 42	60.6	21 9	22 5	38.7	522	8 20	557	403	14 55	154	120	15 12	170	93	23 52	77
26	40.6	2 45	48.1	30.1	0 4	18.0	526	2 58	566	481	8 40	85	110	16 45	131	80	3 10	51
27	39.2	13 56	44.0	33.8	20 50	10.2	533	21 5	570	500	13 20	70	112	15 30	125	102	21 42	23
28	39.0	11 50	42.9	31.3	22 8	11.6	540	21 50	562	517	23 30	45	109	15 40	118	98	11 5	20
29 **	39.0	12 55	50.3	24.8	21 40	25.5	525	21 46	601	457	16 45	144	117	15 30	155	89	23 29	66
30	39.5	11 40	44.3	31.6	20 0	12.7	522	23 30	566	480	15 32	86	114	15 40	134	96	0 0	38
Mean	39.7	-	46.5	30.6	-	15.9	531	-	565	488	-	77.4	110	-	129	92	-	36.9
Mean *	39.9	-	43.0	36.1	-	6.9	542	-	557	522	-	35.0	107	-	113	96	-	17.6
Mean **	39.0	-	51.4	21.0	-	30.4	522	-	573	448	-	124.8	110	-	145	76	-	69.6
December	10°+	U.T. h m	10°+ h m	10°+ h m	U.T. h m	,	18000 Y +	U.T. h m	18000 Y +	18000 Y +	U.T. h m	Y	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	
1	38.9	13 12	43.2	30.6	21 12	12.6	532	7 25	548	506	18 18	42	113	19 20	124	106	10 10	18
2	38.3	11 10	44.9	25.1	22 45	19.8	529	22 39	565	467	10 52	98	113	15 45	141	94	2 35	47
3	38.9	11 20	45.6	23.6	21 20	22.0	530	21 35	559	490	14 39	69	113	15 35	129	102	11 24	27
4	39.6	3 18	42.8	30.1	18 50	12.7	539	19 15	557	506	16 0	51	111	17 55	127	102	11 50	25
5	39.6	18 30	42.7	34.1	0 40	8.6	541	6 4	562	517	18 42	45	109	18 20	122	99	9 5	23
6 *	39.6	13 0	42.7	36.4	20 45	6.3	545	5 10	555	533	1 12	22	107	18 5	115	102	13 10	13
7 *	40.0	12 50	42.9	38.4	8 20	4.5	546	21 0	554	532	10 30	22	107	19 20	113	95	10 30	18
8 *	39.8	12 20	41.6	38.5	8 0	3.1	553	8 20	559	546	12 10	13	106	17 35	111	100	10 20	11
9	40.2	13 40	45.4	33.6	22 47	11.8	549	7 10	583	508	12 50	75	106	23 15	116	97	8 15	19
10	39.9	17 22	46.3	34.6	5 29	11.7	545	16 12	577	515	17 2	62	109	20 35	122	97	12 35	25
11	38.8	11 50	43.4	29.7	21 35	13.7	540	16 0	556	507	22 25	49	111	22 6	122	105	12 45	17
12	39.1	12 22	43.7	32.1	1 33	11.6	540	23 4	552	504	15 38	48	112	16 10	125	104	10 50	21
13	38.9	11 40	43.7	31.3	1 48	12.4	541	20 30	556	516	9 25	40	108	16 50	115	95	9 10	20
14	38.4	12 53	44.0	32.4	18 0	11.6	535	23 12	568	468	17 59	100	113	18 50	136	100	10 40	36
15	38.7	14 0	43.6	29.0	23 14	14.6	541	23 19	576	514	19 40	62	111	20 40	121	101	23 35	20
16	39.2	13 58	44.3	31.1	0 0	13.2	542	17 22	560	522	9 20	38	108	19 25	116	97	10 15	19
17	39.0	13 5	43.4	31.2	22 15	12.2	540	22 16	568	507	13 25	61	111	15 45	123	99	10 50	24
18 *	38.8	11 20	42.2	31.3	1 4	10.9	544	9 40	554	527	12 0	27	109	18 40	116	101	11 40	15
19 *	39.2	10 55	41.7	34.3	22 10	7.4	550	16 12	569	525	22 9	44	105	15 40	112	95	10 40	17
20 **	37.8	12 28	50.5	17.0	17 9	33.5	528	20 59	577	443	17 50	134	114	17 5	177	94	{ 22 88	83
21 **	38.6	4 41	49.5	23.5	20 37	26.0	519	20 45	612	458	11 21	154	113	15 32	135	76	5 33	59
22 **	39.0	8 30	44.7	32.4	15 24</													

TABLE IV(A). - THREE-HOUR-RANGE INDICES 'K' FOR THE YEAR 1940.\* (SEE INTRODUCTION PAGE XII).

Date	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3212 3243	20	4333 5655	34	1322 2211	14	5554 4544	36	2221 2332	17	1122 3122	14
2	4322 2214	20	3233 3443	25	2111 1122	11	2222 3365	25	1221 1221	12	2322 3322	19
3	2422 4754	30	3222 3545	26	2221 2223	16	7754 4554	41	2122 2111	12	1112 4332	17
4	3213 4555	28	1111 1433	15	0110 2113	9	3223 3434	24	2111 2113	12	2111 1111	9
5	2422 1123	17	3122 4434	23	1221 1111	10	3223 1333	20	2222 2222	16	2131 3334	20
6	3333 4453	28	4222 3354	25	1111 0222	10	3233 2132	19	1111 1100	6	4444 4433	30
7	3222 4345	25	4222 3232	20	2211 2222	14	1011 2121	9	1222 2222	15	5534 4334	31
8	3432 3333	24	3222 2243	20	2221 2144	18	1122 1311	12	2211 2211	12	4323 3444	27
9	1122 3453	21	3322 2213	18	4521 2332	22	2112 1111	10	3412 3422	21	2333 3443	25
10	2222 5555	28	2211 1233	15	2222 2222	16	1101 2112	9	2222 3344	22	3231 1112	14
11	2333 3265	27	2112 3243	18	2111 1221	11	1111 3311	12	3332 3342	23	2112 1312	13
12	3343 4445	30	3322 4422	22	1111 1455	19	1211 2211	11	3332 3334	24	1101 3322	13
13	2332 2121	16	3222 3243	21	3322 2313	19	2222 3422	19	3112 3343	20	1111 2222	12
14	1111 1123	11	2212 2112	13	2232 2233	19	2332 2322	19	2323 3333	22	2333 5645	31
15	4211 1213	15	2123 3222	17	1102 3101	9	2222 4433	22	2332 3443	24	4443 4432	28
16	2222 3343	21	2212 1333	17	1111 3233	15	4322 3233	22	3101 2122	12	3233 3333	23
17	4332 5343	27	1122 2321	14	2121 1101	9	3321 2221	16	2323 3443	24	2333 3432	23
18	2333 4762	30	1111 1122	10	0011 1111	6	2111 2112	11	4454 5332	30	2343 2232	21
19	3122 2221	15	1111 1212	10	2222 3443	22	2211 2311	13	4122 2324	20	2332 4422	22
20	2222 2241	17	4432 3333	25	4323 4345	28	1232 3333	20	2323 3421	20	1211 2121	11
21	1111 1210	8	4332 3522	24	4332 2233	22	4332 2233	22	2411 1233	17	1311 2111	11
22	1112 1331	13	4332 2333	23	3322 2244	22	3452 3422	23	4554 3331	28	1104 4322	17
23	1122 2233	16	2221 2133	16	1145 3456	29	3112 3223	17	2312 2653	24	4111 2332	17
24	3322 3343	23	4232 2334	23	6333 6999	48	3112 3311	15	3647 5454	38	3333 4244	26
25	3332 4313	22	4343 5553	32	9777 6467	53	4732 3567	37	4311 2433	21	5657 8664	47
26	1111 1222	11	2121 2243	17	6443 3463	33	6432 4443	30	3432 3544	28	4322 2644	27
27	2221 1212	13	3321 2111	14	5444 3434	31	4321 2332	20	5323 2334	25	2222 3321	17
28	2111 1111	9	1112 2123	13	4333 3343	26	3222 2312	17	2433 3333	24	3111 2431	16
29	2111 2443	18	2223 3433	22	2224 4868	36	4322 3321	20	3211 2332	17	1211 2242	15
30	3323 3433	24			7876 6775	53	1212 4343	20	1111 2222	12	4411 3332	21
31	3333 4454	29			6448 7755	46			1111 2111	9		

\* Corresponding figures for the years 1929-1939 are given on Pages 61-83 in the Magnetic and Meteorological Results.

TABLE IV(A). - THREE-HOUR-RANGE INDICES 'K' FOR THE YEAR 1940.\* (SEE INTRODUCTION PAGE XII).

Date	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	4212 2231	17	4312 2223	19	3333 4321	22	4323 3552	27	2333 2230	18	2322 2233	19
2	1211 1222	12	2112 3353	20	1112 3443	19	2122 3423	19	1232 1102	12	4324 2444	27
3	1233 3444	24	2333 6643	30	3433 4434	28	3332 4453	27	3333 2133	21	3213 4435	25
4	4333 3334	26	4233 1332	21	4332 2334	24	4311 1311	15	3332 4454	28	2322 3442	22
5	3221 4343	22	2323 3333	22	3322 2332	20	3322 2111	15	3323 3241	21	3322 2232	19
6	3422 4332	23	3243 3455	29	2222 3213	17	1113 3425	20	2232 1232	17	2211 1122	12
7	2222 3332	19	2223 3431	20	4443 3414	27	4354 4465	35	2133 3112	16	2111 1101	8
8	2110 2324	15	3233 3313	21	3224 4423	24	5543 3346	33	2111 1011	8	1100 0010	3
9	3422 4343	25	3344 4463	31	4333 3344	27	4222 2122	17	1232 3322	18	2233 4213	20
10	4443 4424	29	3223 3422	21	2220 1001	8	1112 2133	14	1111 1101	7	2332 1432	20
11	3432 3322	22	3332 3434	25	1012 2321	12	3321 2114	17	1110 1102	7	2112 2324	17
12	2312 2121	14	2331 2323	19	2111 2212	12	3223 3324	22	3134 3346	27	3222 2332	19
13	1236 6643	31	3222 2322	18	1111 3321	13	2121 2111	11	4553 3332	28	4323 2232	21
14	3433 3433	26	1332 3222	18	3321 3353	23	1111 2111	9	3332 3335	25	3122 3544	24
15	3322 3432	23	2111 1121	10	2333 3343	23	2224 3332	21	3323 2233	21	2111 3334	18
16	3312 3323	20	1121 1121	10	1221 4432	19	2131 2351	18	4212 2553	24	3223 2321	18
17	2211 2311	13	1111 1212	10	1112 1122	11	2211 2213	14	1211 2455	21	1101 3233	14
18	1111 1111	8	1111 2534	18	1021 1122	10	3232 3333	22	3121 2112	13	3212 2221	15
19	2311 2223	16	3112 3433	20	2111 2111	10	2343 3244	25	2133 2222	17	2111 2113	12
20	2111 1222	12	3333 3331	22	1123 4443	22	2222 2124	17	1122 2334	18	3234 5655	33
21	2212 2332	17	2202 3223	16	3234 3322	22	3223 2344	23	5343 3225	27	3533 3354	29
22	2343 4332	24	3222 2442	21	1123 3232	17	2344 4121	21	4554 4255	34	3233 5422	24
23	3111 3323	17	2111 2232	14	1111 2111	9	1121 1110	8	3344 3231	23	3122 3454	24
24	2332 3224	21	1111 1000	5	1201 1113	10	1011 1100	5	1121 1124	13	2221 2243	18
25	3332 2312	19	1000 3233	12	3434 3444	29	1112 3455	22	3225 6545	32	2332 1333	20
26	3311 3211	15	3313 4346	27	2111 1675	24	3334 5555	33	5543 3421	27	1323 2143	19
27	1111 1311	10	3432 2323	22	6432 3465	33	3323 3443	25	2112 3343	19	3322 4312	20
28	2112 3212	14	4322 3232	21	4443 3453	30	3222 3352	22	0112 2124	13	2123 2145	20
29	1222 2243	18	3113 4222	18	3232 4242	21	1421 2111	13	3444 5545	34	4322 1344	23
30	2333 4443	26	2001 3223	13	2111 2243	16	3211 1122	13	4323 3434	26	2453 3454	30
31	3433 3333	25	2111 2224	15			3231 3221	17			4333 4442	27

\* Corresponding figures for the years 1929-1939 are given on Pages 61-83 in the Magnetic and Meteorological Results.

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

"A11" Days

DECLINATION WEST (Unit 0°.01)

Month and Season, 1940	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.	-141	-132	-135	-140	-089	-068	-026	-050	-047	+025	+135	+263	+395	+390	+290	+176	+173	+124	-111	-157	-265	-234	-189	-195
Feb.	-195	-204	-193	-188	-159	-151	-122	-085	-062	-008	+141	+311	+395	+403	+318	+251	+144	+092	+043	-030	-171	-173	-206	-149
March	-230	-170	-203	-264	-166	-094	-171	-271	-346	-237	-083	+255	+530	+669	+646	+524	+264	+125	+022	+006	-089	-219	-219	-282
April	-080	-177	-205	-200	-216	-238	-305	-393	-448	-344	-074	+257	+564	+694	+678	+497	+329	+153	+045	-032	-089	-113	-128	-181
May	-144	-156	-225	-212	-264	-384	-489	-510	-428	-195	+088	+407	+601	+655	+569	+430	+299	+162	+077	+006	-102	-058	-044	-090
June	-104	-145	-186	-143	-290	-391	-530	-575	-527	-321	-022	+319	+583	+688	+638	+541	+362	+226	+068	-005	-014	-031	-045	-103
July	-096	-102	-131	-176	-273	-411	-509	-523	-510	-361	-111	+203	+484	+637	+668	+554	+393	+231	+113	+039	+011	000	-031	-088
Aug.	-170	-154	-194	-255	-318	-397	-450	-484	-411	-222	+082	+412	+655	+735	+647	+472	+258	+103	+035	-039	-026	-026	-075	-174
Sept.	-145	-194	-233	-166	-174	-208	-308	-437	-426	-244	+075	+444	+706	+743	+628	+417	+224	-002	-112	-136	-087	-120	-135	-119
Oct.	-211	-207	-175	-145	-121	-105	-111	-176	-247	-177	+073	+356	+567	+504	+375	+221	+130	-010	-124	-155	-260	-279	-247	
Nov.	-294	-185	-092	-059	-065	+012	-001	-013	-066	-070	+106	+295	+397	+376	+359	+281	+198	+112	+039	-111	-185	-331	-360	-341
Dec.	-190	-117	-059	-018	+018	+014	+012	+025	+044	+042	+140	+236	+294	+302	+266	+147	+098	+028	-082	-118	-188	-337	-311	-254
Year	-167	-162	-169	-164	-176	-201	-251	-291	-290	-176	+046	+313	+511	+572	+518	+389	+247	+124	+011	-058	-113	-159	-169	-185
Winter	-205	-160	-120	-101	-074	-048	-034	-031	-033	-003	+131	+276	+370	+368	+308	+214	+153	+089	-028	-104	-202	-269	-287	-235
Equinox	-167	-187	-204	-194	-169	-160	-224	-319	-367	-251	-002	+328	+581	+668	+614	+453	+260	+102	-014	-072	-105	-178	-190	-207
Summer	-129	-139	-184	-197	-286	-396	-495	-523	-469	-275	+009	+335	+583	+679	+631	+499	+328	+181	+073	+000	-033	-029	-049	-114

INCLINATION (Unit 0°.01)

Jan.	-011	-011	-033	-049	-059	-082	-089	-080	-046	-005	+020	+019	+011	+022	+038	+062	+077	+057	+055	+025	+038	+028	+009	+003
Feb.	-022	-016	-008	-010	-027	-045	-056	-056	-037	-007	+029	+036	+019	+012	+026	+035	+045	+009	+010	-002	+018	+030	+016	000
March	-061	-060	-055	-050	-074	-087	-068	-034	+038	+123	+192	+151	+086	+043	+033	+005	-044	-002	-008	-018	-014	-011	-023	-063
April	-039	-034	-050	-050	-043	-045	+003	+012	+055	+129	+158	+131	+084	+051	+009	-012	-041	-043	-057	-058	-036	-056	-040	-035
May	-044	-052	-040	-025	-022	+001	+035	+071	+110	+132	+100	+060	+059	+069	+039	+014	-025	-058	-094	-087	-072	-068	-060	-045
June	-043	-048	-034	-048	-036	-023	+023	+077	+129	+158	+143	+099	+084	+025	+032	-010	-027	-071	-092	-115	-067	-063	-062	-042
July	-038	-040	-029	-029	-012	-003	+043	+062	+097	+150	+156	+103	+072	+048	+012	-036	-070	-070	-072	-086	-096	-068	-060	-054
Aug.	-061	-059	-053	-032	-026	-007	+027	+073	+127	+173	+152	+088	+037	+007	+005	+008	-017	-034	-056	-066	-075	-075	-066	-064
Sept.	-075	-089	-072	-064	-060	-052	-018	+028	+092	+138	+150	+106	+040	+032	+025	+041	+033	+006	-016	-046	-054	-071	-070	
Oct.	-063	-059	-073	-095	-100	-108	-088	-046	+018	+080	+111	+116	+106	+082	+048	+040	+050	+038	+021	+036	-009	-033	-019	-044
Nov.	-023	-027	-043	-065	-096	-108	-110	-076	-030	+034	+057	+066	+071	+084	+078	+070	+068	+038	+031	+020	+016	-020	-022	-019
Dec.	-011	-016	-022	-032	-057	-080	-082	-069	-053	-029	+016	+040	+043	+043	+037	+061	+047	+055	+055	+027	+010	+008	+002	
Year	-041	-043	-046	-051	-053	-082	-083	+042	+090	+107	+085	+059	+043	+032	+023	+008	-006	-019	-029	-026	-031	-031	-035	
Winter	-017	-018	-027	-039	-060	-079	-084	-070	-042	-002	+031	+040	+036	+040	+045	+057	+059	+040	+038	+018	+020	+012	+003	-004
Equinox	-060	-061	-063	-065	-069	-073	-043	-010	+051	+118	+153	+126	+079	+052	+029	+019	-001	-000	-013	-014	-026	-039	-038	+063
Summer	-047	-050	-039	-064	-024	-008	+032	+071	+116	+153	+138	+088	+063	+037	+022	-006	-035	-059	-082	-091	-071	-067	-058	-049

HORIZONTAL INTENSITY (Unit 0°.1Y)

Jan.	+ 01	- 01	+ 26	+ 44	+ 60	+ 94	+ 106	+ 98	+ 47	- 12	- 47	- 52	- 33	- 31	- 38	- 58	- 61	- 34	- 36	+ 01	- 30	- 26	- 09	- 12
Feb.	+ 23	+ 10	- 03	+ 03	+ 28	+ 53	+ 70	+ 70	+ 41	- 13	- 73	- 81	- 52	- 30	- 29	- 25	- 29	+ 21	+ 17	+ 29	- 02	- 24	- 09	+ 05
March	+ 60	+ 25	+ 15	+ 13	+ 57	+ 82	+ 74	+ 50	- 61	- 201	- 317	- 260	- 160	- 70	- 34	+ 39	+ 164	+ 102	+ 103	+ 89	+ 64	+ 47	+ 46	+ 73
April	+ 53	+ 41	+ 53	+ 43	+ 30	+ 43	- 10	- 14	- 85	- 216	- 279	- 257	- 189	- 116	- 17	+ 47	+ 109	+ 126	+ 153	+ 149	+ 99	+ 113	+ 76	+ 59
May	+ 68	+ 73	+ 54	+ 33	+ 31	- 04	- 56	- 115	- 188	- 246	- 224	- 181	- 167	- 142	- 58	+ 10	+ 91	+ 157	+ 213	+ 193	+ 158	+ 129	+ 90	+ 76
June	+ 60	+ 55	+ 30	+ 51	+ 35	+ 19	- 46	- 125	- 217	- 278	- 281	- 228	- 197	- 74	- 39	+ 54	+ 101	+ 181	+ 221	+ 243	+ 150	+ 123	+ 105	+ 67
July	+ 53	+ 51	+ 28	+ 33	+ 17	+ 09	- 62	- 96	- 165	- 260	- 287	- 229	- 179	- 111	- 22	+ 85	+ 148	+ 169	+ 193	+ 194	+ 136	+ 113	+ 95	+ 72
Aug.	+ 91	+ 84	+ 71	+ 43	+ 41	+ 16	- 35	- 109	- 208	- 298	- 291	- 205	- 122	- 51	- 13	+ 23	+ 79	+ 113	+ 141	+ 146	+ 14			

TABLE V. - MEAN DIURNAL INEQUALITIES OF GEOGRAPHICAL  
COMPONENTS OF MAGNETIC INTENSITY

"A11" Days

## NORTH COMPONENT (Unit 0° 1' Y)

Month  
and  
Season,  
1940

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.	+ 15	+ 12	+ 39	+ 57	+ 68	+ 99	+ 107	+ 101	+ 51	- 14	- 60	- 77	- 72	- 70	- 66	- 75	- 77	- 46	- 24	+ 17	- 03	- 02	+ 10	+ 08
Feb.	+ 42	+ 30	+ 16	+ 22	+ 43	+ 67	+ 81	+ 77	+ 46	- 12	- 86	- 111	- 91	- 70	- 60	- 50	- 43	+ 11	+ 12	+ 32	+ 15	- 06	+ 12	+ 20
March	+ 82	+ 42	+ 35	+ 39	+ 73	+ 90	+ 90	+ 76	- 25	- 174	- 303	- 281	- 211	- 136	- 98	- 14	+ 135	+ 88	+ 99	+ 87	+ 72	+ 68	+ 67	+ 100
April	+ 60	+ 58	+ 73	+ 62	+ 51	+ 66	+ 21	+ 26	- 39	- 178	- 267	- 278	- 243	- 184	- 85	- 04	+ 74	+ 109	+ 146	+ 150	+ 106	+ 123	+ 88	+ 76
May	+ 81	+ 88	+ 76	+ 54	+ 57	+ 35	- 06	- 62	- 142	- 222	- 229	- 219	- 225	- 205	- 114	- 33	+ 60	+ 138	+ 202	+ 189	+ 166	+ 133	+ 93	+ 84
June	+ 70	+ 69	+ 48	+ 65	+ 64	+ 58	+ 08	- 65	- 160	- 241	- 274	- 256	- 253	- 142	- 102	- 01	+ 63	+ 155	+ 210	+ 239	+ 149	+ 124	+ 108	+ 76
July	+ 62	+ 60	+ 41	+ 50	+ 44	+ 50	- 10	- 42	- 111	- 219	- 271	- 246	- 225	- 173	- 89	+ 28	+ 106	+ 143	+ 178	+ 187	+ 133	+ 111	+ 97	+ 80
Aug.	+ 107	+ 98	+ 89	+ 68	+ 72	+ 56	+ 11	- 59	- 163	- 271	- 294	- 243	- 186	- 124	- 78	- 25	+ 52	+ 101	+ 135	+ 147	+ 143	+ 131	+ 113	+ 115
Sept.	+ 118	+ 129	+ 108	+ 91	+ 88	+ 88	+ 56	+ 06	- 107	- 212	- 285	- 263	- 182	- 147	- 94	- 66	- 20	+ 54	+ 85	+ 87	+ 110	+ 113	+ 126	+ 114
Oct.	+ 102	+ 87	+ 99	+ 122	+ 126	+ 137	+ 118	+ 76	- 09	- 120	- 201	- 236	- 232	- 184	- 105	- 60	- 47	- 16	+ 25	+ 02	+ 64	+ 92	+ 63	+ 91
Nov.	+ 45	+ 40	+ 45	+ 69	+ 117	+ 126	+ 133	+ 94	+ 34	- 69	- 127	- 153	- 157	- 150	- 120	- 86	- 74	- 21	- 05	+ 22	+ 31	+ 85	+ 72	+ 53
Dec.	+ 27	+ 15	+ 15	+ 25	+ 59	+ 95	+ 103	+ 83	+ 58	+ 15	- 64	- 101	- 105	- 88	- 64	- 71	- 41	- 45	- 32	+ 08	+ 36	+ 37	+ 25	+ 22
Year	+ 68	+ 61	+ 57	+ 60	+ 72	+ 81	+ 59	+ 26	- 47	- 143	- 205	- 205	- 182	- 139	- 90	- 38	+ 16	+ 56	+ 86	+ 97	+ 85	+ 84	+ 73	+ 70
Winter	+ 32	+ 24	+ 29	+ 43	+ 72	+ 97	+ 106	+ 89	+ 47	- 20	- 84	- 111	- 106	- 96	- 78	- 71	- 59	- 25	- 12	+ 20	+ 20	+ 29	+ 30	+ 26
Equinox	+ 91	+ 79	+ 79	+ 79	+ 85	+ 95	+ 71	+ 46	- 45	- 171	- 264	- 265	- 217	- 163	- 96	- 36	+ 36	+ 59	+ 89	+ 82	+ 88	+ 99	+ 86	+ 95
Summer	+ 80	+ 79	+ 64	+ 59	+ 59	+ 50	+ 01	- 57	- 144	- 238	- 267	- 241	- 222	- 161	- 96	- 08	+ 70	+ 134	+ 181	+ 191	+ 148	+ 125	+ 103	+ 89

## WEST COMPONENT (Unit 0° 1' Y)

Jan.	- 75	- 70	- 67	- 66	- 36	- 19	+ 06	- 08	- 16	+ 11	+ 63	+ 129	+ 203	+ 201	+ 147	+ 82	+ 80	+ 59	- 66	- 83	- 146	- 124	- 102	- 106
Feb.	- 99	- 106	- 103	- 99	- 79	- 70	- 51	- 32	- 25	- 07	+ 61	+ 149	+ 198	+ 208	+ 163	+ 128	+ 71	+ 53	+ 26	- 10	- 91	- 96	- 111	- 78
March	- 111	- 85	- 105	- 137	- 77	- 35	- 77	- 134	- 194	- 163	- 103	+ 86	+ 250	+ 341	+ 336	+ 285	+ 170	+ 85	+ 31	+ 20	- 35	- 107	- 107	- 136
April	- 32	- 86	- 99	- 98	- 109	- 118	- 163	- 210	- 253	- 223	- 91	+ 88	+ 263	+ 346	+ 356	+ 272	+ 195	+ 105	+ 52	+ 11	- 29	- 39	- 54	- 85
May	- 64	- 69	- 109	- 106	- 134	- 204	- 269	- 292	- 262	- 149	+ 05	+ 182	+ 287	+ 320	+ 290	+ 230	+ 175	+ 115	+ 81	+ 39	- 25	- 07	- 07	- 33
June	- 44	- 67	- 92	- 68	- 147	- 203	- 289	- 328	- 320	- 222	- 64	+ 126	+ 277	+ 350	+ 331	+ 297	+ 211	+ 153	+ 77	+ 43	+ 21	+ 07	- 04	- 42
July	- 41	- 45	- 64	- 87	- 141	- 216	- 281	- 295	- 301	- 240	- 113	+ 65	+ 228	+ 318	+ 350	+ 309	+ 236	+ 154	+ 96	+ 57	+ 31	+ 21	+ 01	- 33
Aug.	- 73	- 66	- 89	- 127	- 161	- 207	- 245	- 277	- 257	- 173	- 11	+ 180	+ 324	+ 380	+ 340	+ 254	+ 151	+ 76	+ 45	+ 07	+ 13	+ 11	- 20	- 74
Sept.	- 57	- 82	- 107	- 74	- 79	- 95	- 158	- 239	- 254	- 174	- 13	+ 194	+ 353	+ 380	+ 327	+ 216	+ 119	+ 09	- 45	- 58	- 27	- 44	- 50	- 44
Oct.	- 96	- 97	- 77	- 56	- 42	- 32	- 38	- 82	- 137	- 120	+ 02	+ 150	+ 243	+ 276	+ 257	+ 194	+ 112	+ 68	- 01	- 68	- 73	- 125	- 141	- 118
Nov.	- 153	- 94	- 42	- 19	- 14	+ 31	+ 25	+ 11	- 30	- 52	+ 34	+ 133	+ 188	+ 178	+ 174	+ 138	+ 95	+ 57	+ 20	- 57	- 96	- 165	- 184	- 177
Dec.	- 99	- 61	- 30	- 05	+ 21	+ 26	+ 30	+ 35	+ 26	+ 65	+ 110	+ 141	+ 149	+ 134	+ 67	+ 46	+ 07	- 51	- 63	- 96	- 178	- 166	- 135	
Year	- 79	- 77	- 82	- 78	- 83	- 95	- 126	- 155	- 168	- 124	- 14	+ 133	+ 246	+ 287	+ 267	+ 206	+ 138	+ 78	+ 22	- 14	- 46	- 71	- 79	- 88
Winter	- 107	- 83	- 61	- 47	- 27	- 08	+ 02	+ 00	- 09	- 06	+ 56	+ 130	+ 183	+ 184	+ 155	+ 104	+ 73	+ 44	- 18	- 53	- 107	- 141	- 141	- 124
Equinox	- 74	- 88	- 97	- 91	- 77	- 70	- 109	- 166	- 210	- 170	- 51	+ 130	+ 277	+ 336	+ 319	+ 242	+ 149	+ 67	+ 09	- 24	- 41	- 79	- 88	- 96
Summer	- 56	- 62	- 89	- 97	- 146	- 208	- 271	- 298	- 285	- 196	- 46	+ 138	+ 278	+ 342	+ 328	+ 273	+ 193	+ 125	+ 75	+ 37	+ 10	+ 08	- 08	- 46

## VERTICAL COMPONENT (Unit 0° 1' Y)

Jan.	- 36	- 41	- 56	- 65	- 67	- 65	- 62	- 49	- 48	- 44	- 43	- 54	- 38	+ 04	+ 41	+ 79	+ 123	+ 116	+ 107	+ 91	+ 62	+ 39	+ 11	- 17
Feb.	- 25	- 31	- 34	- 29	- 27	- 30	- 32	- 31	- 30	- 54	- 68	- 65	- 54	- 27	+ 22	+ 63	+ 86	+ 78	+ 74	+ 64	+ 59	+ 50	+ 33	+ 09
March	- 73	- 150	- 157	- 141	- 126	- 112	- 61	+ 00	- 09	- 40	- 72	- 84	- 77	- 15	+ 35	+ 106	+ 230	+ 232	+ 211	+ 147	+ 99	+ 74	+ 26	- 47
April	- 11	- 21	- 48	- 72	- 79	- 54	- 14	+ 10	- 07	- 57	- 105	- 146	- 148	- 94	- 06	+ 70	+ 111	+ 144	+ 158	+ 144	+ 108	+ 70	+ 37	+ 16
May	+ 06	- 11	- 15	- 09	- 03	- 06	- 11	- 20	- 59	- 119	- 178	- 214	- 184	- 92	- 01	+ 72	+ 123	+ 167	+ 171	+ 149	+ 117	+ 66	+ 38	+ 22
June	- 12	- 39	- 48	- 42	- 36	- 27	- 23	- 58	- 100	- 160	- 189	- 169	- 88	+ 21	+ 90	+ 143	+ 177	+ 197	+ 171	+ 117	+ 69	+ 31	+ 11	
July	- 07	- 20	- 33	- 23	- 02	+ 09	+ 02	- 11	- 48	- 85	- 127	- 175	- 167	- 93	- 09	+ 71	+ 103	+ 144	+ 151	+ 122	+ 84	+ 55	+ 35	+ 15
Aug.	+ 01	- 06	- 19	- 12	+ 08	+ 13	+ 10	- 04	- 44															

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

## International Quiet Days

## DECLINATION WEST (Unit 0°.01)

Month and Season, 1940	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.	-086	-028	-008	-024	-033	-059	-065	-165	<b>-168</b>	-073	+055	+184	+267	<b>+279</b>	+172	+072	+074	+039	+012	000	-049	-102	-143	-145
Feb.	-076	-065	-047	-084	-086	<b>-145</b>	-127	-114	-121	-096	+069	+176	<b>+225</b>	+196	+155	+114	+098	+078	+045	+022	-004	-025	-057	-125
March	-102	-094	-114	-135	-180	-186	-208	-315	<b>-425</b>	-399	-151	+215	+466	<b>+515</b>	+489	+360	+176	+086	+088	+043	+025	-012	-043	-098
April	-017	-054	-056	-087	-115	-156	-304	-479	<b>-602</b>	-514	-248	+154	+524	<b>+696</b>	+612	+410	+203	+032	+001	+015	+003	+015	-003	-019
May	-071	-087	-165	-149	-277	-389	-517	<b>-545</b>	-443	-213	+065	+377	+545	<b>+547</b>	+459	+343	+237	+141	+067	+039	+039	+015	+021	-029
June	-084	-074	-048	-094	-244	-416	-506	<b>-576</b>	-534	-324	+016	+362	<b>+676</b>	+602	+448	+254	+088	+010	-012	-036	-030	-044	-040	
July	-057	-063	-089	-195	-305	-437	-513	<b>-537</b>	-491	-355	-107	+201	+421	<b>+549</b>	+567	+457	+293	+193	+151	+081	+077	+093	+077	-005
Aug.	-132	-156	-204	-260	-316	-416	-542	<b>-576</b>	-474	-282	+066	+448	<b>+772</b>	+660	+468	+238	+072	+046	+084	-040	-038	-022	-062	
Sept.	-082	-080	-130	-136	-156	-212	-344	-460	<b>-466</b>	-304	-020	+320	+518	<b>+548</b>	+426	+270	+188	+124	+094	+036	+012	-010	-066	-082
Oct.	-108	-112	-062	-070	-074	-108	-148	-266	<b>-362</b>	-300	-032	+222	+372	<b>+386</b>	+332	+226	+150	+116	+064	+028	-008	-054	-092	-100
Nov.	-151	-137	-091	-027	-027	-031	-097	-107	-179	<b>-181</b>	-043	+161	+237	<b>+251</b>	+207	+163	+155	+117	+073	+011	-035	-071	-097	-109
Dec.	-147	<b>-155</b>	-035	-011	-017	-049	-055	-067	-057	-019	+095	<b>+195</b>	+193	+185	+129	+089	+065	+033	-011	-021	-081	-075	-111	-103
Year	-093	-092	-087	-106	-153	-217	-286	-351	<b>-360</b>	-255	-020	+251	+424	<b>+467</b>	+401	+285	+178	+093	+053	+023	-008	-025	-048	-076
Winter	-115	-096	-045	-037	-041	-071	-086	-113	<b>-131</b>	-092	+044	+179	<b>+231</b>	+228	+166	+110	+098	+067	+030	+003	-042	-068	-102	-121
Equinox	-077	-085	-091	-107	-131	-166	-251	-380	<b>-464</b>	-379	-113	+228	+470	<b>+536</b>	+465	+317	+179	+090	+062	+031	+008	-015	-051	-075
Summer	-086	-095	-126	-175	-286	-415	-520	<b>-559</b>	-486	-294	+010	+347	+572	<b>+636</b>	+572	+429	+256	+124	+069	+036	+010	+010	+008	-034

## INCLINATION (Unit 0°.01)

Jan.	-002	+012	+002	-001	-008	-012	-021	-018	+004	+045	<b>+081</b>	+056	+028	000	-014	-012	-026	-029	<b>-030</b>	-029	-014	+003	-002	-012
Feb.	+016	+019	+014	-006	-019	-022	<b>-034</b>	<b>-034</b>	-006	+033	<b>+059</b>	+058	+028	-008	-030	-024	000	+014	-003	-008	-006	-018	-010	-007
March	-005	-006	-005	-001	+002	-013	-026	-003	+048	+110	<b>+137</b>	+104	+077	+048	+005	-015	-028	-036	-055	-071	<b>-081</b>	-070	-016	-051
April	-016	-012	-012	-016	-024	-042	-035	-021	+036	+119	<b>+164</b>	+132	+097	+052	+023	-029	-048	-034	<b>-059</b>	-054	-057	-058	-068	-047
May	+001	000	+020	+020	+020	+036	+055	+089	<b>+097</b>	+088	+069	+031	-001	-005	-021	-033	-044	-052	-052	<b>-073</b>	-061	-060	-068	-051
June	-037	+002	-002	-009	-007	-011	+019	+050	+092	<b>+127</b>	+105	+098	+078	+054	+014	-009	-035	-066	-083	<b>-093</b>	-078	-089	-071	-056
July	+006	+014	+012	+015	+024	+023	+036	+055	+085	<b>+110</b>	+106	+054	+019	+003	-006	-049	-049	-049	<b>-083</b>	-079	-066	-065	-050	
Aug.	-063	-035	-015	000	+007	+016	+064	+126	+163	<b>+171</b>	+136	+072	000	-031	-036	-026	-019	-040	-071	-084	-087	-073	-083	<b>-096</b>
Sept.	-027	-013	-006	000	-004	-007	+011	+053	+080	+113	<b>+123</b>	+067	+027	+017	+006	+016	-013	-038	-057	-070	-070	<b>-073</b>	-071	-070
Oct.	-014	-024	-014	-040	-048	<b>-068</b>	-066	-027	+052	+118	<b>+150</b>	+145	+117	+079	+025	-001	-027	-041	-052	-062	-062	-049	-047	-045
Nov.	+047	+028	+011	-002	-028	-039	-040	-036	+001	+033	+044	+050	<b>+063</b>	+062	+038	+024	-006	-023	-030	-043	<b>-054</b>	-051	-028	-018
Dec.	<b>+043</b>	+035	+032	+021	-007	-025	-021	-022	<b>-028</b>	-011	+013	+014	+021	-001	-012	-015	-022	-007	-008	-024	-022	-003	+023	+022
Year	-004	+002	+003	-002	-008	-014	-005	+018	+052	+088	<b>+099</b>	+073	+046	+023	-001	-014	-026	-033	-049	<b>-058</b>	-055	-051	-045	-040
Winter	+026	+024	+015	+003	-016	-025	<b>-029</b>	-028	-007	+025	<b>+049</b>	+045	+035	+013	-005	-007	-014	-011	-018	-026	-024	-017	-004	-004
Equinox	-016	-014	-009	-014	-019	-033	-029	+001	+054	+115	<b>+144</b>	+112	+080	+049	+015	-007	-029	-037	-056	-064	<b>-068</b>	-063	-061	-053
Summer	-023	-005	+004	+007	+011	+016	+044	+080	+109	<b>+124</b>	+104	+064	+024	+005	-012	-029	-037	-052	-072	<b>-082</b>	-073	-072	-069	-063

## HORIZONTAL INTENSITY (Unit 0°.1Y)

Jan.	+ 03	- 17	- 01	+ 03	+ 13	+ 17	+ 29	+ 25	- 13	- 79	<b>-133</b>	-101	- 55	+ 01	+ 33	+ 27	+ 47	+ 51	+ 53	+ 51	+ 27	- 03	+ 03	+ 13
Feb.	- 28	- 28	- 20	+ 08	+ 24	+ 28	+ 52	<b>+ 54</b>	+ 16	- 46	- 96	<b>-106</b>	- 64	- 10	+ 34	+ 38	+ 06	- 10	+ 20	+ 22	+ 38	+ 22	+ 10	
March	+ 15	+ 17	+ 13	+ 07	+ 05	+ 27	+ 49	+ 27	- 53	- 161	<b>-215</b>	-183	- 147	- 95	- 23	+ 27	+ 53	+ 59	+ 83	+ 109	<b>+119</b>	+103	+ 97	+ 75
April	+ 38	+ 32	+ 32	+ 38	+ 50	+ 80	+ 80	+ 60	- 36	- 188	<b>-290</b>	-274	- 226	- 140	- 58	+ 50	+ 94	+ 78	+ 112	+ 98	<b>+100</b>	+ 96	+ 90	+ 76
May	+ 15	+ 15	- 17	- 11	- 33	- 61	- 117	- 145	- 163	<b>-171</b>	-133	- 75	- 35	+ 13	+ 55	+ 83	+ 113	+ 109	+ 135	+ 113	+ 109	+ 113	+ 87	
June	+ 59	+ 01	+ 13	+ 27	+ 33	+ 37	- 11	- 67	- 149	- 225	- 235	<b>-237</b>	-191	- 131	- 29	+ 37	+ 91	+ 145	+ 171	<b>+179</b>	+143	+ 145	+ 115	+ 91
July	+ 03	- 03	- 07	- 13	- 17	- 15	- 41	- 77	- 135	- 193	<b>-209</b>	-155	- 107	- 5										

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

## International Quiet Days

## NORTH COMPONENT (Unit 0°1Y)

Month and Season, 1940	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.	+ 12	- 14	- 00	+ 05	+ 16	+ 23	+ 35	+ 41	+ 04	- 70	<b>-136</b>	- 118	- 81	- 27	+ 15	+ 19	+ 39	+ 46	+ <b>51</b>	+ 50	+ 31	+ 07	+ 17	+ 27
Feb.	- 20	- 21	- 15	+ 16	+ 32	+ 42	+ 64	+ <b>65</b>	+ 28	- 36	- 101	<b>-122</b>	- 86	- 30	+ 18	+ 26	- 04	- 18	+ 15	+ 21	+ 22	+ 40	+ 27	+ 22
March	+ 25	+ 26	+ 24	+ 21	+ 23	+ 45	+ 69	+ 58	- 09	- 118	- 196	<b>-202</b>	- 191	- 145	- 72	- 10	+ 34	+ 49	+ 73	+ 103	<b>+115</b>	+ 102	+ 100	+ 84
April	+ 39	+ 37	+ 37	+ 46	+ 61	+ 94	+ 109	+ 107	+ 25	- 133	- 260	<b>-285</b>	- 275	- 208	- 119	+ 08	+ 72	+ 74	<b>+110</b>	+ 95	+ 98	+ 93	+ 89	+ 77
May	+ 22	+ 23	- 02	+ 17	+ 07	- 08	- 60	- 98	- 139	<b>-175</b>	- 169	- 129	- 89	- 33	+ 20	+ 68	+ 97	+ 100	<b>+129</b>	+ 107	+ 106	+ 109	+ 88	
June	+ 66	+ 08	+ 18	+ 36	+ 57	+ 78	+ 40	- 08	- 93	- 189	- 233	<b>-269</b>	- 248	- 197	- 89	- 09	+ 64	+ 134	+ 167	<b>+177</b>	+ 144	+ 146	+ 117	+ 94
July	+ 09	+ 04	+ 02	+ 07	+ 14	+ 29	+ 11	- 22	- 83	- 154	<b>-195</b>	- 173	- 148	- 105	- 58	+ 51	+ 74	+ 88	<b>+137</b>	+ 131	+ 105	+ 100	+ 82	+ 84
Aug.	+ 120	+ 82	+ 57	+ 47	+ 49	+ 43	- 09	- 102	- 187	- 246	<b>-265</b>	- 221	- 144	- 86	- 38	- 01	+ 22	+ 71	+ 112	+ 133	+ 145	+ 127	+ 135	<b>+159</b>
Sept.	+ 57	+ 40	+ 39	+ 33	+ 39	+ 53	+ 46	- 03	- 67	- 164	<b>-234</b>	- 197	- 152	- 116	- 64	- 47	+ 09	+ 54	+ 91	+ 116	+ 119	+ 119	+ 119	<b>+122</b>
Oct.	+ 36	+ 50	+ 29	+ 63	+ 75	+ 106	<b>+116</b>	+ 85	- 24	- 146	- 240	<b>-259</b>	- 229	- 166	- 68	- 06	+ 37	+ 54	+ 75	+ 89	+ 92	+ 77	+ 77	+ 78
Nov.	- 46	- 20	- 07	+ 05	+ 42	+ 60	+ 75	+ 68	+ 16	- 51	- 88	<b>-140</b>	- 120	- 70	- 38	+ 06	+ 33	+ 50	+ 72	<b>+90</b>	+ 86	+ 49	+ 37	
Dec.	- 51	- 46	- 55	- 37	+ 11	+ 45	+ 42	+ 41	+ 40	- 50	- 56	<b>-62</b>	- 20	+ 10	+ 24	+ 38	+ 23	+ 30	+ 48	<b>+50</b>	+ 14	- 21	- 22	
Year	+ 22	+ 14	+ 11	+ 20	+ 36	+ 52	+ 49	+ 23	- 37	- 120	- 181	<b>-182</b>	- 157	- 109	- 47	+ 03	+ 38	+ 59	+ 84	<b>+97</b>	+ 93	+ 85	+ 75	+ 71
Winter	- 26	- 25	- 19	- 03	+ 25	+ 43	<b>+54</b>	+ 54	+ 22	- 39	- 94	<b>-103</b>	- 92	- 49	- 07	+ 08	+ 20	+ 21	+ 37	+ 48	+ 48	+ 37	+ 18	+ 16
Equinox	+ 39	+ 38	+ 32	+ 41	+ 50	+ 75	+ 85	+ 62	- 19	- 140	- 233	<b>-236</b>	- 212	- 159	- 81	- 14	+ 38	+ 58	+ 87	+ 101	<b>+106</b>	+ 98	+ 96	+ 90
Summer	+ 54	+ 29	+ 19	+ 22	+ 34	+ 39	+ 09	- 48	- 115	- 182	<b>-217</b>	- 208	- 167	- 119	- 55	+ 15	+ 57	+ 98	+ 129	<b>+143</b>	+ 125	+ 120	+ 111	+ 106

## WEST COMPONENT (Unit 0°1Y)

Jan.	- 45	- 18	- 04	- 12	- 15	- 28	- 29	- 83	- <b>91</b>	- 53	+ 04	+ 79	+ 131	<b>+148</b>	+ 97	+ 43	+ 48	+ 30	+ 16	+ 10	- 21	- 55	- 75	- 74
Feb.	- 45	- 40	- 29	- 43	- 41	<b>-72</b>	- 58	- 50	- 61	- 59	+ 19	+ 73	<b>+107</b>	+ 102	+ 89	+ 68	+ 53	+ 39	+ 28	+ 16	+ 02	- 06	- 26	- 64
March	- 51	- 47	- 58	- 70	- 94	- 94	- 101	- 162	- 235	<b>-241</b>	- 120	+ 80	+ 219	<b>+255</b>	+ 255	+ 196	+ 103	+ 57	+ 62	+ 43	+ 36	+ 13	- 05	- 38
April	- 02	- 23	- 24	- 39	- 52	- 68	- 146	- 242	<b>-325</b>	- 307	- 186	+ 30	+ 235	<b>+342</b>	+ 313	+ 227	+ 125	+ 32	+ 21	+ 26	+ 20	+ 26	+ 15	+ 04
May	- 35	- 43	- 91	- 82	- 149	- 212	- 285	<b>-310</b>	- 262	- 143	+ 02	+ 175	+ 275	<b>+283</b>	+ 245	+ 192	+ 143	+ 96	+ 56	+ 46	+ 42	+ 28	+ 32	+ 01
June	- 34	- 39	- 23	- 45	- 123	- 213	- 270	<b>-317</b>	- 311	- 214	- 35	+ 147	+ 283	<b>+333</b>	+ 313	+ 244	+ 152	+ 74	+ 37	+ 27	+ 08	+ 11	- 02	- 04
July	- 30	- 34	- 48	- 106	- 165	- 234	- 279	<b>-299</b>	- 285	- 224	- 96	+ 77	+ 203	+ 281	<b>+300</b>	+ 260	+ 175	+ 123	+ 109	+ 69	+ 62	+ 70	+ 58	+ 13
Aug.	- 50	- 70	- 101	- 134	- 164	- 220	- 299	<b>-335</b>	- 296	- 202	- 14	+ 204	+ 368	<b>+407</b>	+ 355	+ 257	+ 135	+ 53	+ 47	+ 44	+ 06	+ 03	+ 14	- 04
Sept.	- 34	- 36	- 64	- 68	- 78	- 106	- 180	- 253	<b>-268</b>	- 198	- 56	+ 138	+ 255	<b>+279</b>	+ 221	+ 139	+ 105	+ 78	+ 69	+ 42	+ 29	+ 17	- 14	- 22
Oct.	- 53	- 52	- 29	- 26	- 26	- 39	- 59	- 130	<b>-203</b>	- 192	- 63	+ 72	+ 160	<b>+180</b>	+ 169	+ 123	+ 89	+ 74	+ 49	+ 32	+ 13	- 15	- 36	- 40
Nov.	- 92	- 79	- 51	- 14	- 07	- 06	- 39	- 46	- 95	<b>-109</b>	- 40	+ 66	+ 108	<b>+115</b>	+ 100	+ 82	+ 86	+ 71	+ 49	+ 20	- 02	- 23	- 44	- 53
Dec.	- 90	- <b>94</b>	- 30	- 13	- 07	- 18	- 22	- 29	- 24	- 10	+ 43	+ 96	+ 94	<b>+98</b>	+ 73	+ 53	+ 43	+ 23	- 00	- 02	- 35	- 38	- 65	- 61
Year	- 47	- 48	- 46	- 54	- 77	- 109	- 147	- 188	<b>-205</b>	- 163	- 45	+ 103	+ 203	<b>+235</b>	+ 211	+ 157	+ 105	+ 63	+ 45	+ 31	+ 13	+ 03	- 12	- 29
Winter	- <b>69</b>	- 58	- 29	- 21	- 18	- 31	- 37	- 52	- 68	- 58	+ 07	+ 79	+ 109	<b>+116</b>	+ 90	+ 62	+ 58	+ 41	+ 23	+ 11	- 14	- 31	- 53	- 63
Equinox	- 35	- 40	- 44	- 51	- 63	- 77	- 122	- 197	<b>-258</b>	- 235	- 106	+ 80	+ 217	<b>+264</b>	+ 240	+ 171	+ 106	+ 60	+ 50	+ 36	+ 25	+ 10	- 10	- 24
Summer	- 37	- 47	- 66	- 92	- 150	- 220	- 283	<b>-315</b>	- 289	- 196	- 36	+ 151	+ 282	<b>+326</b>	+ 303	+ 238	+ 151	+ 87	+ 62	+ 47	+ 30	+ 28	+ 26	+ 02

## VERTICAL INTENSITY (Unit 0°1Y)

Jan.	00	+ 04	+ 02	+ 04	+ 02	- 02	- 02	- 04	- 16	- 26	- 32	<b>-40</b>	- 32	+ 04	<b>+26</b>	+ 22	+ 22	+ 18	+ 20	+ 18	+ 14	+ 04	00	- 10
Feb.	- 09	- 01	+ 03	- 05	- 09	- 11	+ 03	+ 07	+ 19	+ 07	- 21	- 45	<b>-51</b>	- 51	- 25	+ 07	+ 13	+ 25	<b>+33</b>	+ 29	+ 31	+ 29	+ 17	+ 01
March	+ 17	+ 17	+ 13	+ 13	+ 19	+ 17	+ 25	<b>+51</b>	+ 43	+ 07	- 29	- 67	<b>-75</b>	- 55	- 35	+ 11	+ 29	+ 13	+ 05	+ 07	- 03	- 05	- 05	- 05
April	+ 37	+ 35	+ 35	+ 35	+ 35	+ 43	+ 67	<b>+67</b>	+ 43	- 27	- 107	- 181	<b>-191</b>	- 55	+ 19	+ 51	+ 61	+ 57	+ 43	+ 33	+ 23	+ 09	+ 15	
May	+ 39	+ 33	+ 25	+ 31	+ 45	+ 49	+ 49	+ 33	- 05	- 75	- 161	<b>-203</b>	- 175	- 99	- 41	+ 15	+ 65	+ 83	+ 73	+ 61	+ 53	+ 45	+ 27	+ 27
June	+ 12	+ 12	+ 24	+ 30	+ 52	+ 48	+ 42	+ 16	- 26	- 84	- 182	<b>-216</b>	- 178	- 118	- 20	+ 54	+ 90	<b>+112</b>	+ 110	+ 94	+ 64			

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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

## International Disturbed Days

## DECLINATION WEST (Unit 0°.01)

Month and Season, 1940	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.	-125	-127	-114	-072	-057	+041	+092	+131	+094	+123	+227	+343	+489	+552	+442	+245	+472	-018	-556	-370	-824	-409	-233	-335
Feb.	-357	<b>-451</b>	-310	-297	-230	-177	-097	+034	+079	+167	+285	+471	+512	<b>+526</b>	+441	+334	+150	-228	-160	-113	-097	-232	-232	-015
March	-780	-204	-552	-851	-085	+416	-120	-225	-283	+079	-528	-140	+671	+1137	+1175	<b>+1199</b>	+285	-112	-215	+406	-092	-140	-167	<b>-879</b>
April	+114	-278	-315	-272	-311	-298	-135	-129	-272	-258	+043	+380	+578	+693	<b>+740</b>	+636	+462	+235	+155	-143	-329	-394	-409	<b>-503</b>
May	-068	-022	-224	-262	-104	-220	-402	<b>-572</b>	-478	-130	+206	+486	+658	<b>+726</b>	+604	+472	+280	+076	-048	+008	-324	-238	-220	-206
June	-430	-488	-482	-022	-226	-336	-570	<b>-646</b>	-560	-352	+026	+412	+874	<b>+924</b>	+776	+806	+590	+438	+026	-156	-108	-178	-098	-226
July	-204	-100	-198	-206	-352	-340	-402	-476	<b>-520</b>	-332	-066	+252	+646	+778	<b>+780</b>	+626	+392	+186	-028	-032	+014	-032	-196	-182
Aug.	-067	-175	-171	-205	-219	-231	-249	-287	-243	-139	+095	+329	+527	<b>+691</b>	+619	+439	+241	+069	+087	-217	-129	-109	-221	<b>-435</b>
Sept.	-208	-436	<b>-622</b>	-156	+074	+028	-008	-154	-246	-176	+116	+488	+766	<b>+866</b>	+750	+470	+256	-310	-464	-562	-100	-104	-188	-074
Oct.	-395	-603	-547	-489	-203	+043	+021	-003	-035	+007	+219	+561	+725	<b>+833</b>	+751	+657	+473	+353	-001	-567	-433	<b>-627</b>	-469	-263
Nov.	-610	-538	-480	-274	-304	+124	+088	+074	+066	+070	+384	+544	+656	+580	<b>+712</b>	+428	+332	+160	+164	-144	-198	-536	-626	<b>-662</b>
Dec.	-250	-024	000	-070	+180	+228	+188	+166	+208	+172	+234	+230	+296	+266	<b>+362</b>	+126	-068	-188	-234	-276	-358	-396	<b>-404</b>	-392
Year	-282	-287	-335	-265	-153	-060	-133	-174	-183	-064	+103	+363	+617	<b>+714</b>	+679	+537	+322	+055	-108	-181	-248	-283	-289	<b>-348</b>
Winter	-336	-285	-226	-178	-103	+054	+068	+101	+112	+133	+283	+397	+488	+481	<b>+489</b>	+283	+222	-069	-197	-226	-369	<b>-393</b>	-374	-351
Equinox	-317	-380	<b>-509</b>	-442	-131	+047	-061	-128	-209	-087	-038	+322	+685	<b>+882</b>	+854	+741	+369	+042	-131	-217	-239	-316	-308	-430
Summer	-192	-196	-269	-174	-225	-282	-406	<b>-495</b>	-450	-238	+065	+370	+676	<b>+780</b>	+695	+586	+376	+192	+009	-099	-137	-139	-184	-262

## INCLINATION (Unit 0°.01)

Jan.	-128	-127	-134	-151	-185	-249	<b>-269</b>	-244	-164	-112	-092	-090	-107	-025	+057	+247	<b>+370</b>	+337	+326	+266	+152	+148	+117	+067
Feb.	-078	-049	-010	-004	-037	-081	<b>-098</b>	-065	-020	+013	+053	+076	+065	+080	+105	<b>+126</b>	+093	-024	+043	-020	-019	+002	-087	-066
March	-325	-155	-187	-174	-395	-403	-164	-100	+162	+421	<b>+867</b>	+472	+184	+046	+080	-051	<b>-419</b>	-028	+176	+120	+047	+002	+007	-169
April	-067	-023	-209	<b>-225</b>	-146	-103	+096	+054	+121	+243	<b>+271</b>	+208	+137	+091	+008	-003	-067	-098	-131	-125	+009	-073	+003	+032
May	-107	-147	-170	-116	-105	-087	-056	-019	+104	<b>+266</b>	+226	+138	+175	+211	+101	+078	+048	-011	<b>-149</b>	-111	-082	-077	-066	-043
June	-066	-086	-108	<b>-161</b>	-116	-107	-043	+075	+119	<b>+180</b>	+151	+050	+120	-107	+040	-032	+042	-046	-036	-109	+047	+072	+085	+059
July	-049	-108	<b>-109</b>	-088	-051	+046	+027	+026	+059	+163	<b>+221</b>	+103	+051	+030	+068	-008	-050	-039	-043	-063	-010	-036	-047	-015
Aug.	-108	<b>-123</b>	-119	-106	-065	-070	-025	+024	+108	<b>+197</b>	<b>+197</b>	+121	+094	+047	+073	+090	-028	-018	-081	-068	-030	-054	-040	-023
Sept.	-116	<b>-237</b>	-161	-139	-117	-151	-062	-034	+060	+104	<b>+140</b>	+120	+047	+082	+104	+121	+100	+025	<b>+126</b>	+101	+031	-005	-069	-068
Oct.	-178	-147	-200	-237	-220	<b>-245</b>	-191	-107	-011	+025	+051	+053	+080	+075	+074	+069	+140	+174	+226	<b>+297</b>	+175	+054	+071	-026
Nov.	-032	-044	-033	-082	-181	-167	<b>-191</b>	-127	-128	+017	+033	+019	+010	+078	<b>+179</b>	+158	+158	+102	+107	+098	+085	-057	-029	+026
Dec.	-062	-080	-084	-096	-150	<b>-218</b>	-189	-111	-022	-023	+069	+140	+112	+116	+050	+137	+165	+134	<b>+179</b>	+077	-028	-062	-057	+002
Year	-110	-111	-127	-132	-147	<b>-161</b>	-097	-052	+032	+125	<b>+182</b>	+118	+081	+060	+078	+078	+046	+042	+062	+038	+031	-007	-011	-019
Winter	-075	-075	-065	-083	-138	-179	<b>-187</b>	-137	-084	-026	+016	+036	+020	+062	+098	+167	<b>+197</b>	+137	+164	+104	+048	+008	-014	+007
Equinox	-172	-141	-189	-194	-220	<b>-226</b>	-080	-047	+083	+198	<b>+332</b>	+213	+112	+074	+067	+034	-062	+018	+099	+098	+066	-006	+003	-058
Summer	-083	-116	<b>-127</b>	-118	-084	-078	-024	+027	+098	<b>+202</b>	+199	+103	+110	+045	+071	+032	+003	-029	-077	-088	-019	-024	-022	-006

## HORIZONTAL INTENSITY (Unit 0°.1Y)

Jan.	+128	+122	+134	+158	+204	+298	<b>+322</b>	+290	+176	+102	+78	+68	+100	+02	-76	-262	<b>-346</b>	-302	-328	-264	-154	-182	-162	-116
Feb.	+ 76	+ 34	- 18	- 18	+ 28	+ 84	+108	+ 68	+ 06	- 52	-110	<b>-140</b>	-108	-112	- 50	+110	- 08	+ 68	+ 44	+ 04	<b>+128</b>	+ 80		
March	+257	-196	-136	-126	+204	+264	+ 41	+ 71	-326	-726	<b>-1379</b>	-713	-243	+ 81	+ 64	+331	<b>+1257</b>	+631	+251	+ 81	+ 74	+ 94	+ 21	+134
April	+ 19	- 25	+183	+137	- 05	+ 01	-229	-113	-199	-375	<b>-401</b>	-313	-201	-111	+ 47	+103	+221	+291	<b>+371</b>	+353	+105	+171	+ 19	- 57
May	+165	+213	+225	+133	+107	+ 63	+ 09	- 25	-217	<b>-481</b>	-427	-299	-329	-323	-105	-33	+ 37	+145	<b>+357</b>	+275	+201	+147	+103	+ 55
June	+ 62	+ 66	+ 88	+128	+ 46	+ 28	- 38	-190	-270	<b>-368</b>	-318	-156	-234	+184	+ 52	+176	+ 98	+230	+256	<b>+334</b>	+ 36	- 48	- 74	- 88
July	+ 44	+124	+118	+ 92	+ 36	+ 34	- 74	- 72	-138	-304	<b>-402</b>	-238	-146	- 50										

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

## International Disturbed Days

## NORTH COMPONENT (Unit 0° 1' Y)

Month and Season, 1940	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.	+138	+133	+143	+163	+206	+289	+307	+272	+164	+88	+54	+32	+49	-54	-119	-282	-388	-295	-267	-222	-69	-138	-136	-80
Feb.	+111	+79	+14	+12	+51	+100	+116	+63	-02	-68	-137	-185	-158	-163	-151	-144	-64	+131	+08	+78	+53	+27	+149	+80
March	+331	-172	-78	-38	+209	+218	+52	+92	-292	-722	-1303	-687	-306	-35	-55	+205	+1207	+632	+268	+39	+82	+107	+37	+220
April	+07	+03	+212	+162	+26	+31	-212	-98	-168	-343	-399	-346	-256	-179	-28	+37	+171	+263	+849	+361	+136	+208	+60	-05
May	+169	+212	+244	+157	+116	+84	+49	+33	-165	-460	-440	-343	-390	-391	-164	-80	+08	+135	+356	+270	+230	+168	+123	+75
June	+104	+114	+135	+128	+68	+61	+20	-122	-209	-326	-315	-195	-318	+88	-27	+92	+37	+182	+249	+344	+46	-29	-63	-64
July	+64	+132	+136	+111	+71	+68	-32	-23	-83	-265	-389	-259	-208	-127	-143	+26	+132	+156	+178	+180	+65	+90	+106	+34
Aug.	+147	+172	+158	+145	+96	+111	+48	-27	-173	-335	-368	-284	-243	-147	-134	-102	+122	+126	+201	+194	+91	+99	+66	+47
Sept.	+156	+293	+195	+115	+64	+140	+33	+32	-92	-168	-264	-266	-176	-202	-173	-127	-56	+136	+12	+16	+31	+69	+142	+97
Oct.	+244	+183	+252	+287	+237	+249	+183	+85	-32	-93	-154	-176	-220	-192	-135	-82	-120	-130	-149	-234	-100	+47	-32	+70
Nov.	+81	+90	+50	+88	+231	+149	+182	+120	+137	-82	-135	-108	-80	-143	-270	-175	-167	-81	-93	-39	-33	+182	+90	+06
Dec.	+92	+67	+59	+90	+147	+235	+207	+111	-09	-06	-149	-243	-199	-174	-76	-146	-154	-89	-155	-14	+123	+142	+117	+26
Year	+137	+109	+127	+118	+127	+145	+79	+45	-77	-232	-333	-255	-209	-143	-123	-65	+61	+97	+80	+81	+55	+81	+55	+42
Winter	+106	+92	+67	+88	+159	+183	+203	+142	+73	-17	-92	-126	-97	-134	-154	-187	-193	-84	-127	-49	+19	+53	+55	+08
Equinox	+185	+77	+145	+132	+134	+160	+14	+29	-146	-332	-530	-369	-240	-152	-98	+08	+301	+225	+120	+46	+37	+108	+52	+96
Summer	+121	+158	+168	+135	+88	+81	+21	-35	-158	-347	-378	-270	-290	-144	-117	-16	+75	+150	+246	+247	+108	+82	+58	+23

## WEST COMPONENT (Unit 0° 1' Y)

Jan.	-42	-44	-35	-09	+08	+77	+109	+124	+83	+84	+135	+194	+278	+293	+220	+81	+185	-66	-356	-245	-465	-251	-154	-199
Feb.	-175	-232	-168	-161	-117	-78	-31	+31	+43	+79	+130	+223	+251	+258	+213	+156	+70	-100	-86	-47	-43	-122	-99	+07
March	-365	-145	-318	-474	-07	+270	-56	-106	-211	-94	-537	-207	+310	+617	+634	+697	+385	+59	-67	+230	-35	-57	-85	-440
April	+64	-152	-133	-118	-166	-158	-114	-89	-181	-207	-52	+143	+268	+346	+401	+356	+286	+179	+152	-10	-155	-177	-213	-277
May	-05	+28	-77	-114	-35	-105	-211	-308	-294	-159	+29	+201	+287	+324	+300	+244	+155	+67	+41	+56	-134	-99	-97	-99
June	-216	-246	-239	+12	-111	-173	-309	-378	-347	-255	-46	+189	+419	+524	+421	+460	+331	+275	+62	-20	-51	-103	-66	-136
July	-100	-30	-83	-92	-180	-174	-227	-266	-301	-233	-110	+89	+315	+403	+401	+348	+240	+132	+19	+17	+20	-00	-87	-93
Aug.	-09	-63	-64	-85	-102	-106	-128	-163	-166	-140	-18	+127	+243	+351	+314	+221	+156	+62	+86	-82	-54	-41	-109	-230
Sept.	-85	-184	-304	-64	+53	+42	+02	-78	-153	-129	+13	+217	+387	+437	+379	+234	+130	-144	-252	-305	-49	-44	-76	-22
Oct.	-170	-296	-252	-214	-66	+71	+46	+15	-25	-14	+91	+274	+356	+420	+386	+345	+237	+169	-29	-356	-257	-335	-263	-131
Nov.	-319	-278	-254	-134	-123	+96	+83	+64	+62	+23	+185	+278	+345	+291	+339	+202	+150	+72	+72	-86	-115	-260	-326	-362
Dec.	-120	-01	+11	-21	+127	+170	+143	+112	+112	+93	+100	+80	+125	+113	+184	+41	-67	-120	-158	-154	-173	-190	-199	-210
Year	-129	-137	-160	-123	-60	-06	-58	-87	-115	-79	-07	+151	+299	+365	+349	+282	+188	+49	-43	-84	-126	-140	-148	-183
Winter	-164	-139	-112	-81	-26	+66	+76	+83	+75	+70	+138	+194	+250	+239	+239	+120	+85	-54	-132	-133	-199	-206	-195	-191
Equinox	-139	-194	-252	-218	-47	+56	-31	-65	-143	-111	-123	+107	+330	+455	+450	+408	+260	+66	-49	-110	-124	-153	-159	-218
Summer	-83	-78	-116	-70	-107	-140	-219	-280	-277	-197	-36	+152	+316	+401	+359	+318	+221	+134	+52	-07	-55	-61	-90	-140

## VERTICAL INTENSITY (Unit 0° 1' Y)

Jan.	-147	-155	-153	-157	-165	-165	-179	-171	-159	-149	-139	-151	-137	-83	+21	+245	+473	+465	+363	+303	+165	+89	+29	-39
Feb.	-93	-89	-75	-57	-63	-83	-85	-67	-57	-77	-73	-61	-29	+19	+111	+175	+205	+173	+133	+89	+39	+19	-03	-43
March	-527	-994	-964	-897	-894	-777	-471	-181	-197	-234	-211	-27	+69	+349	+426	+596	+1479	+1373	+1193	+606	+536	+226	+73	-274
April	-188	-138	-298	-460	-514	-354	-200	-76	-44	-30	+02	-10	+06	+56	+138	+230	+284	+340	+412	+390	+276	+144	+56	-20
May	+15	-13	-65	-89	-115	-155	-173	-123	-145	-201	-211	-219	-159	-21	+105	+193	+253	+301	+315	+257	+185	+77	+11	-21
June	-83	-145	-171	-259	-295	-305	-239	-185	-219	-235	-219	-189	-129	+59	+261	+297	+373	+377	+471	+403	+247	+139	+51	+01
July	-67	-87	-103	-89	-93	-81	-79	-75	-117	-147	-173	-197	-163	-13	+83	+185	+231	+279	+265	+199	+125	+79	+43	-15
Aug.	-40	-60	-78	-72	-52	-36	-36	-50	-92	-144	-168	-176	-126	-20	+84	+186	+250	+252	+214	+174	+78	+22	-36	-72
Sept.	-83	-233	-241	-247	-237	-185	-137	-79	-69	-79	-113	-99	-73	+11	+129	+227	+273	+335	+353	+251	+157	+121	+51	-23
Oct.	-132	-220	-224	-256	-248	-246	-220	-170	-120	-130	-134	-102	-72	+04	+118	+200	+312	+378	+428	+338	+266	+150	+60	+14
Nov.</td																								

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								
	$a_1$	$b_1$	$a_2$	$b_2$	$a_3$	$b_3$	$a_4$	$b_4$	$a_1$	$b_1$	$a_2$	$b_2$	$a_3$	$b_3$	$a_4$	$b_4$	$a_1$	$b_1$	$a_2$	$b_2$	$a_3$	$b_3$	$a_4$
"All" Days																							
1940	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jan.	+ 3.9 + 5.8 - 3.5 - 1.4 + 0.3 - 1.5 + 0.2 + 1.4	- 11.8 - 1.2 + 2.4 + 5.2 - 0.1 - 1.4 + 2.2 + 0.4	- 0.0 - 8.4 - 3.0 - 0.0 + 1.1 + 0.7 - 0.4 - 0.2																				
Feb.	+ 4.5 + 3.1 - 4.0 - 1.3 + 0.5 + 0.5 + 1.7	- 12.1 - 5.4 + 2.4 + 3.6 - 1.1 - 1.1 + 1.8 + 1.1	+ 1.9 - 5.8 - 3.1 - 0.0 + 1.1 - 0.5 - 0.7 - 0.6																				
March	+ 12.9 - 2.2 - 10.1 + 1.4 + 4.9 - 2.5 + 1.1 + 1.4	- 12.3 - 12.9 + 1.2 + 11.7 - 1.9 - 6.3 + 1.6 + 3.1	- 1.9 - 13.6 - 7.5 - 3.3 + 3.4 + 1.0 + 0.2 - 0.7																				
April	+ 14.5 - 4.1 - 9.9 + 0.3 + 2.8 - 0.6 - 0.7 + 1.1	- 9.7 - 16.5 + 4.4 + 12.6 - 2.2 - 5.8 + 1.6 + 1.8	+ 4.4 - 8.4 - 6.7 - 2.6 + 3.4 + 1.2 - 0.8 + 0.9																				
May	+ 16.3 - 6.9 - 8.5 + 0.4 - 0.4 + 1.0 + 1.3 + 0.5	- 9.9 - 18.3 + 8.4 + 9.6 - 4.3 - 2.1 + 1.7 - 0.8	+ 7.6 - 8.4 - 8.9 + 0.5 + 2.6 + 0.1 - 0.7 + 0.6																				
June	+ 16.4 - 8.0 - 10.1 + 1.4 - 0.3 + 0.5 + 1.4 + 1.1	- 8.1 - 21.2 + 7.4 + 12.7 - 4.3 - 3.5 + 0.7 - 0.4	+ 5.7 - 10.3 - 8.7 - 0.4 + 2.8 + 0.5 - 0.7 + 0.6																				
July	+ 14.7 - 7.5 - 9.5 + 1.4 + 1.5 - 0.3 + 0.6 + 0.4	- 6.3 - 21.7 + 5.7 + 12.9 - 2.4 - 3.6 - 0.4 + 0.6	+ 5.8 - 6.8 - 8.0 - 0.2 + 2.5 + 0.2 - 0.3 - 0.3																				
Aug.	+ 16.8 - 6.1 - 6.9 + 3.0 + 0.1 - 2.2 + 1.5 + 1.5	- 11.1 - 18.3 + 9.3 + 10.3 - 4.6 - 4.3 + 0.4 + 1.2	+ 5.9 - 6.3 - 8.2 + 0.9 + 2.9 + 0.2 - 0.1 - 0.1																				
Sept.	+ 16.9 - 1.3 - 6.2 + 2.0 + 1.2 - 2.6 + 0.9 + 2.1	- 11.6 - 12.5 + 9.1 + 11.6 - 5.0 - 6.9 + 2.1 + 0.4	+ 3.7 - 7.9 - 7.4 - 0.3 + 2.9 - 0.2 - 0.2 + 0.6																				
Oct.	+ 14.0 + 4.7 - 7.0 + 0.5 + 2.6 - 2.3 - 0.7 + 0.6	- 12.7 - 7.0 + 2.2 + 9.8 - 2.5 - 4.0 + 2.3 + 1.3	+ 0.7 - 8.4 - 3.9 - 0.9 + 2.0 + 0.5 - 0.5 + 0.5																				
Nov.	+ 9.6 + 5.5 - 5.7 - 2.2 + 1.3 + 2.5 + 0.2 + 0.2	- 13.1 - 1.8 - 1.9 + 7.2 - 2.4 - 1.3 + 1.6 + 1.5	- 0.1 - 9.1 - 3.0 + 0.2 + 1.1 - 0.6 - 1.1 + 0.7																				
Dec.	+ 4.7 + 4.7 - 3.6 - 2.6 + 1.5 - 1.7 - 0.6 + 0.6	- 11.3 + 2.0 - 0.3 + 5.0 - 1.3 - 0.3 + 0.5 + 1.3	+ 0.3 - 7.2 - 2.8 - 0.1 + 0.9 - 0.5 - 0.1 + 0.3																				
Year	+ 12.1 - 1.0 - 7.1 + 0.2 + 1.5 - 1.3 + 0.5 + 1.1	- 10.9 - 11.2 + 4.2 + 9.4 - 2.7 - 3.4 + 1.4 + 1.0	+ 2.8 - 8.4 - 5.9 - 0.5 + 2.2 + 0.2 - 0.5 + 0.2																				
Winter	+ 5.7 + 4.8 - 4.2 - 1.9 + 1.2 - 1.6 + 0.1 + 1.0	- 12.2 - 1.7 + 0.6 + 5.3 - 1.2 - 1.1 + 1.5 + 1.1	+ 0.5 - 7.6 - 3.0 - 0.0 + 1.0 - 0.2 - 0.6 + 0.0																				
Equinox	+ 14.6 - 0.8 - 8.3 + 1.0 + 2.9 - 2.0 + 0.2 + 1.3	- 11.6 - 12.2 + 4.2 + 11.4 - 2.9 - 5.8 + 1.9 + 1.6	+ 1.7 - 9.7 - 6.4 - 1.8 + 2.9 + 0.6 - 0.4 + 0.3																				
Summer	+ 16.1 - 7.1 - 8.8 + 1.5 + 0.3 - 0.5 + 1.2 + 0.9	- 8.9 - 19.9 + 7.7 + 11.4 - 3.9 - 3.4 + 0.6 + 0.2	+ 6.2 - 8.0 - 8.4 + 0.2 + 2.7 + 0.3 - 0.5 + 0.2																				
INTERNATIONAL QUIET DAYS																							
Year	+ 9.2 - 1.6 - 6.6 + 0.1 - 0.1 - 2.6 - 0.1 + 1.0	- 5.5 - 11.8 + 4.8 + 8.0 - 3.9 - 3.2 + 1.2 + 0.8	+ 4.2 - 1.3 - 4.6 + 0.2 + 2.3 - 0.3 - 0.8 + 0.3																				
Winter	+ 3.1 + 0.7 - 4.9 - 0.5 + 1.5 - 1.5 - 0.7 + 1.0	- 5.2 - 4.1 + 0.6 + 3.5 - 2.6 - 1.0 + 0.9 + 0.3	+ 1.3 - 2.0 - 2.0 - 0.1 + 0.9 - 0.4 - 0.4 + 0.3																				
Equinox	+ 12.2 - 0.2 - 8.5 - 0.3 + 3.2 - 2.0 - 0.3 + 1.4	- 4.2 - 12.5 + 4.1 + 10.1 - 4.3 - 5.4 + 2.1 + 1.9	+ 4.0 + 0.1 - 4.5 - 0.3 + 2.8 + 0.1 - 1.1 + 0.5																				
Summer	+ 12.4 - 5.1 - 6.5 + 1.2 + 1.1 - 1.7 + 0.8 + 0.5	- 7.0 - 18.9 + 9.6 + 10.5 - 4.6 - 3.3 + 0.6 + 0.3	+ 7.4 - 1.9 - 7.4 + 0.9 + 3.2 - 0.4 - 0.9 + 0.0																				
INTERNATIONAL DISTURBED DAYS																							
Year	+ 15.9 - 2.2 - 9.6 + 2.9 + 1.8 - 2.5 + 1.7 + 1.5	- 17.9 - 9.0 + 2.4 + 11.1 - 0.9 - 6.6 + 1.4 + 0.9	- 3.1 - 26.5 - 9.4 - 1.1 + 3.6 + 2.1 + 0.4 + 0.1																				
Winter	+ 9.2 + 10.7 - 3.3 - 3.9 + 0.1 - 4.0 + 1.0 + 1.2	- 19.8 + 3.9 + 1.4 + 5.6 + 0.1 - 3.5 + 1.0 + 1.0	- 1.6 - 17.3 - 6.4 + 1.4 + 1.7 + 2.0 - 0.7 - 0.8																				
Equinox	+ 19.2 - 8.2 - 13.6 + 8.3 + 5.9 - 3.6 + 2.4 - 0.4	- 21.0 - 11.7 - 0.0 + 14.0 + 1.6 - 11.6 + 1.9 + 1.7	- 10.7 - 40.8 - 12.3 - 6.8 + 6.1 + 3.2 + 2.6 - 0.2																				
Summer	+ 19.4 - 9.0 - 12.0 + 4.3 - 0.5 + 0.1 + 1.7 + 3.6	- 13.1 - 19.1 + 5.7 + 13.9 - 4.2 - 4.6 + 1.3 - 0.0	+ 3.1 - 21.5 - 9.6 + 2.0 + 3.1 + 1.0 - 0.7 + 1.4																				

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																									
1940	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.	7.0	35	3.8	249	1.5	169	1.4	8	12.1	265	5.7	25	1.4	186	2.3	82	8.4	181	3.0	270	1.3	59	0.5	242	
Feb.	5.5	56	4.2	253	1.9	106	1.8	17	13.5	247	4.3	34	1.5	225	2.1	60	6.1	163	3.1	270	1.2	113	0.9	229	
March	13.1	100	10.2	27																					

TABLE X. - RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1940

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	
January	6° 60	1° 66	16° 7	4° 47	1° 11	18° 6	13° 76	6° 39	66° 8	18° 4	34° 9	19° 0	18° 7	23° 9	6° 6	69° 5	75° 8	65° 2
February	6° 09	1° 01	15° 1	3° 70	0° 93	16° 0	9° 77	2° 24	26° 8	19° 2	31° 9	15° 4	18° 7	17° 9	8° 4	33° 4	49° 0	29° 8
March	10° 15	2° 79	48° 1	9° 40	2° 18	33° 4	20° 78	12° 86	263° 6	43° 8	53° 5	38° 9	31° 7	49° 6	12° 6	251° 0	113° 7	247° 3
April	11° 42	2° 16	43° 2	12° 98	2° 23	39° 0	12° 43	4° 96	77° 2	42° 8	60° 9	30° 6	39° 5	66° 7	25° 8	76° 0	67° 8	92° 6
May	11° 65	2° 26	45° 9	10° 92	1° 70	30° 6	12° 98	4° 15	83° 8	43° 1	61° 2	38° 5	30° 4	59° 6	28° 6	81° 6	63° 2	53° 4
June	12° 63	2° 73	52° 4	12° 52	2° 20	41° 6	15° 70	3° 41	70° 2	51° 3	67° 8	38° 6	44° 6	65° 0	32° 8	67° 0	90° 2	77° 6
July	11° 91	2° 52	48° 1	11° 04	1° 93	36° 4	13° 00	3° 30	58° 2	45° 8	65° 1	32° 6	33° 2	59° 9	26° 8	56° 9	70° 4	47° 6
August	12° 19	2° 48	44° 4	13° 48	2° 67	43° 4	11° 26	3° 20	57° 8	44° 1	65° 7	32° 1	42° 4	74° 2	23° 6	56° 9	58° 1	42° 8
September	11° 80	2° 39	39° 6	10° 14	1° 96	36° 2	14° 88	3° 77	51° 0	41° 4	63° 4	30° 1	35° 6	54° 7	22° 6	55° 9	74° 2	60° 0
October	8° 46	2° 24	33° 3	7° 48	2° 18	35° 0	14° 60	5° 42	55° 4	37° 3	41° 7	20° 5	37° 5	38° 3	10° 2	52° 1	77° 6	68° 4
November	7° 57	1° 94	26° 0	4° 32	1° 17	20° 6	13° 74	3° 70	40° 6	29° 0	37° 2	18° 2	23° 0	22° 4	9° 8	50° 1	70° 7	44° 0
December	6° 39	1° 43	18° 5	3° 50	0° 71	11° 4	7° 66	3° 97	48° 6	20° 8	32° 7	15° 7	11° 2	19° 2	9° 2	47° 8	39° 4	36° 0
Mean for Year	9° 74	2° 13	35° 9	8° 66	1° 75	30° 2	13° 38	4° 78	75° 0	36° 4	51° 3	27° 5	30° 5	46° 0	18° 1	74° 9	70° 8	72° 1
Winter	6° 66	1° 51	19° 1	4° 00	0° 98	16° 7	11° 23	4° 08	45° 7	21° 9	34° 2	17° 1	17° 8	20° 9	8° 5	50° 2	58° 7	43° 8
Equinox	10° 46	2° 40	41° 1	10° 00	2° 14	35° 9	15° 67	6° 75	111° 8	41° 3	54° 9	30° 0	36° 1	52° 3	17° 8	108° 8	83° 3	117° 1
Summer	12° 10	2° 50	47° 7	11° 99	2° 13	38° 0	13° 24	3° 52	67° 5	46° 1	65° 0	35° 5	37° 7	64° 7	28° 0	65° 6	70° 5	55° 4

TABLE XI. - NON-CYCLIC CHANGE ( $24^{\text{h}}$  minus  $0^{\text{h}}$ )

Month 1940	'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° 29	-0° 3	-0° 1	-0° 74	+1° 8	-2° 2	-1° 38	-18° 8	+6° 4
February	+0° 29	+0° 3	+0° 2	-1° 00	+2° 8	-0° 2	+3° 84	+7° 8	+0° 2
March	+0° 04	-1° 7	-0° 8	-0° 16	+6° 2	-2° 2	+1° 73	-12° 7	-4° 7
April	-0° 25	+1° 7	+0° 3	+0° 22	+3° 8	-1° 6	-1° 90	-2° 6	+9° 0
May	+0° 10	+0° 3	0° 0	+0° 22	+6° 6	-1° 2	-1° 54	-7° 8	-6° 4
June	-0° 01	-0° 2	+0° 3	-0° 02	+1° 2	-0° 4	+2° 60	-11° 4	+4° 4
July	-0° 03	+0° 2	-0° 3	+0° 34	+6° 4	-1° 0	+0° 14	-4° 8	+3° 0
August	-0° 21	+0° 1	-0° 2	-0° 02	+5° 6	-0° 8	-3° 04	-12° 0	-4° 8
September	+0° 18	+0° 1	+0° 3	+0° 26	+4° 6	-0° 2	+1° 06	-6° 2	+4° 0
October	-0° 04	-0° 3	+0° 1	+0° 38	+4° 8	-1° 4	+0° 24	-13° 0	+8° 0
November	-0° 08	-0° 1	+0° 2	+1° 06	+6° 4	-3° 2	-1° 00	-8° 2	+1° 0
December	0° 00	-0° 2	+0° 1	+0° 44	+3° 4	-0° 6	+0° 40	-2° 0	+2° 2
Year 1940	..	..	..	+0° 08	+4° 5	-1° 3	+0° 10	-7° 6	+1° 9

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

Month 1940	Declination West	Inclination	Intensity				
			Horizontal	North	West	Vertical	Total
	° /	° /	c.g.s.	c.g.s.	c.g.s.	c.g.s.	c.g.s.
January	10 47° 1	66 44° 3	.18525	.18198	.03466	.43094	.46907
February	10 46° 4	66 43° 6	.18533	.18206	.03464	.43089	.46906
March	10 45° 3	66 44° 3	.18524	.18199	.03457	.43093	.46906
April	10 44° 4	66 44° 4	.18526	.18202	.03452	.43099	.46912
May	10 44° 0	66° 43° 4	.18538	.18214	.03452	.43093	.46911
June	10 43° 5	66° 43° 4	.18539	.18215	.03450	.43097	.46916
July	10 42° 5	66 43° 3	.18542	.18219	.03445	.43099	.46918
August	10 42° 3	66 43° 4	.18540	.18217	.03444	.43098	.46917
September	10 41° 4	66 43° 9	.18533	.18211	.03438	.43098	.46914
October	10 40° 6	66 44° 3	.18531	.18210	.03433	.43107	.46921
November	10 39° 7	66 44° 4	.18531	.18211	.03428	.43110	.46924
December	10 39° 0	66 44° 0	.18537	.18218	.03426	.43111	.46927
Year 1940	10 43° 0	66 43° 9	.18533	.18210	.03446	.43099	.46915

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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
1	10 35° 7	10 36° 1	10 36° 3	10 36° 4	10 35° 8	10 38° 8	10 39° 3	10 22° 3	10 22° 5	10 22° 5	10 22° 0	10 22° 0
2	35° 8	36° 1	36° 3	36° 2	35° 9	36° 8	39° 3 22° 3}	22° 4	22° 6	22° 5	22° 0	21° 8
3	35° 8	36° 1	36° 4	36° 2	35° 9	36° 8	22° 3	22° 3	22° 6	22° 5	21° 9	21° 7
4	36° 4	36° 1	36° 3	36° 2	35° 9	36° 8	22° 3	22° 3	22° 6	22° 5	21° 8	22° 6
5	36° 4	36° 1	36° 2	36° 2	35° 9	36° 8	22° 2	22° 4	22° 6	22° 4	21° 8 22° 6}	22° 6
6	36° 5	36° 1	36° 4	36° 3	36° 0	36° 7	22° 3	22° 2	22° 5	22° 2	22° 6	22° 6
7	36° 3	36° 1	36° 3	36° 3	35° 9	36° 5	22° 3	22° 3	22° 6	22° 2	22° 6	22° 6
8	36° 4	36° 2	36° 2	36° 3	35° 9	36° 4	22° 3	21° 9	22° 5	22° 2	22° 6	22° 4
9	36° 4	36° 3	36° 2	36° 3	35° 9	36° 4	22° 2	21° 9	22° 6	22° 2 22° 6}	22° 6	22° 4
10	36° 4	36° 2	36° 2	36° 3	35° 9	36° 4	22° 3	21° 8	22° 6	22° 6	22° 6	22° 4
11	36° 3	36° 3	36° 1	36° 3	36° 0	36° 2 38° 6}	22° 3	21° 9 22° 6}	22° 6	22° 8	22° 6	22° 3
12	36° 4	36° 3	36° 1	36° 3	36° 0	38° 6	22° 3	22° 7	22° 6	22° 8	22° 6	22° 3
13	36° 3	36° 2	36° 1	36° 3	36° 0	38° 6	22° 3	22° 7	22° 6	22° 6	22° 6	22° 4
14	36° 3	36° 3	36° 2	36° 3	36° 1	38° 7 39° 3}	22° 3	22° 7	22° 5	22° 5	22° 6	22° 3
15	36° 3	36° 2	36° 1	36° 3	36° 1	39° 4	22° 3	22° 6	22° 2	22° 5	22° 6	22° 4
16	36° 3	35° 9	36° 2	36° 3	36° 1	39° 3	22° 3	22° 6	22° 2	22° 4	22° 6	22° 4
17	36° 3	35° 7	36° 2	36° 3	36° 2	39° 2	22° 3	22° 6	22° 1	22° 5	22° 6	22° 4
18	36° 2	35° 5	36° 1	36° 3	36° 2	39° 3	22° 3	22° 5	22° 1	22° 6	22° 6	22° 4
19	36° 2	35° 5	36° 1	36° 3	36° 1	39° 3	22° 3	22° 5	22° 1 22° 5}	22° 6	22° 5	22° 3
20	36° 2	35° 6	36° 1	36° 3	36° 1	39° 4	22° 2	22° 5	22° 6	22° 5	22° 5	22° 3
21	36° 0	35° 5	36° 1	36° 3	36° 1	39° 3	22° 2	22° 5	22° 7	22° 6	22° 5	21° 9
22	36° 1	35° 6	36° 1	36° 3	36° 0	39° 3	22° 3	22° 5	22° 6	22° 6	22° 6	21° 7
23	36° 0	35° 6	36° 1	36° 3	36° 0	39° 3	22° 4	22° 5	22° 6	22° 6	22° 6	21° 7
24	36° 1	36° 1	36° 1	36° 3	36° 1	39° 3	22° 5	22° 4	22° 6	22° 6	22° 6	21° 6
25	36° 0	36° 3	36° 1	36° 3	36° 2	39° 3	22° 4	22° 4	22° 7	22° 6	22° 6	21° 6
26	36° 0	36° 2	36° 1	36° 2	36° 2	39° 3	22° 3	22° 3	22° 5	22° 6	22° 6	22° 5
27	36° 1	36° 3	36° 0	36° 2	36° 3	39° 3	22° 3	22° 2	22° 5	22° 6	22° 5	22° 5
28	36° 1	36° 3	35° 9	36° 1	36° 2	39° 3	22° 4	22° 2	22° 5	22° 5	22° 4	22° 5
29	36° 2	36° 3	35° 8	36° 1	36° 2	39° 3	22° 4	22° 0 22° 4}	22° 5	22° 5	22° 2	22° 5
30	36° 1		36° 4	36° 1	36° 3 36° 9}	39° 3	22° 3	22° 5	22° 5	22° 4	22° 2	22° 5
31	36° 0		36° 3		36° 9		22° 4	22° 5		22° 2		22° 5

Sudden small dislocations of the trace, of uncertain origin, occurred  
on June 9, July 2, August 11, 29, September 19, October 9 and November 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. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line	Universal Time		No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line	Universal Time		No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line			
		h m	h m	Y Y			h m	h m	Y Y			h m	h m	Y Y			
Jan.	1	16 46 - 16 55	8	18549	18354	Mar.	20	10 3 - 10 14	8	18490	18350	June	5	9 12 - 9 24	8	18520	18349
	2	12 11 - 12 29	8	18521	18354		21	9 11 - 9 23	8	18516	18350		6	10 7 - 10 19	8	18498	18349
	3	11 53 - 12 11	8	18491	18355		23	9 27 - 9 40	8	18501	18349		7	9 29 - 9 40	8	18450	18349
	4	10 36 - 10 48	8	18490	18354		26	13 48 - 13 56	8	18456	18351		8	9 32 - 9 42	8	18497	18350
	5	11 56 - 12 6	8	18518	18354		27	9 16 - 9 30	8	18472	18351		10	13 54 - 14 3	8	18535	18350
	6	10 44 - 10 57	8	18522	18356		28	9 18 - 9 38	8	18488	18351		11	9 12 - 9 21	8	18525	18351
	8	17 1 - 17 10	8	18531	18355		29	9 3 - 9 13	8	18500	18352		12	9 35 - 9 50	8	18528	18361
	9	11 33 - 11 43	8	18515	18355								13	9 15 - 9 30	8	18549	18360
	10	10 45 - 10 59	8	18546	18355								14	9 1 - 9 27	8	18542	18360
	11	10 22 - 10 31	8	18510	18356	Apr.	1	16 19 - 16 23	4	18459	18351		15	9 13 - 9 24	8	18487	18361
	12	10 21 - 10 31	8	18508	18355		2	10 22 - 10 31	8	18483	18350		17	16 8 - 16 17	8	18545	18360
	13	10 21 - 10 33	8	18516	18355		3	8 45 - 9 4	8	18448	18349		18	9 4 - 9 14	8	18508	18359
	15	15 0 - 15 11	8	18532	18355		4	8 51 - 9 3	8	18491	18350		19	9 24 - 9 34	8	18509	18360
	16	10 49 - 10 56	8	18529	18354		5	9 11 - 9 20	8	18500	18350		20	9 10 - 9 24	8	18511	18361
	17	10 33 - 10 45	8	18510	18355		6	9 2 - 9 14	8	18499	18349		21	9 12 - 9 22	8	18527	18360
	18	12 21 - 12 32	8	18531	18354		8	13 50 - 14 0	8	18526	18348		22	9 14 - 9 26	8	18531	18360
	19	10 45 - 10 55	8	18501	18355		9	9 21 - 9 31	8	18520	18348		24	13 49 - 13 58	8	18527	18360
	22	15 25 - 15 33	8	18534	18353		10	9 43 - 9 53	8	18503	18348		25	9 19 - 9 29	8	18521	18360
	23	10 27 - 10 37	8	18536	18353		11	9 19 - 9 29	8	18526	18349		26	9 2 - 9 18	8	18481	18360
	24	10 32 - 10 40	8	18532	18353		12	9 14 - 9 24	8	18526	18349		27	9 25 - 9 26	8	18492	18361
	25	10 13 - 10 22	8	18519	18354		13	9 11 - 9 21	8	18535	18349		28	9 11 - 9 23	8	18512	18360
	26	11 13 - 11 29	8	18523	18354		15	11 46 - 11 56	8	18515	18348		29	9 8 - 9 18	8	18512	18359
	27	10 48 - 10 56	8	18520	18355		16	9 13 - 9 22	8	18505	18349						
	29	16 43 - 16 55	8	18518	18354		17	9 16 - 9 26	8	18528	18349						
	30	10 48 - 10 56	8	18513	18354		18	9 5 - 9 17	8	18529	18348	July	1	13 47 - 13 56	8	18547	18357
	31	10 36 - 10 46	8	18539	18354		19	9 12 - 9 24	8	18524	18348		2	9 12 - 9 24	8	18537	18358
							20	9 16 - 9 27	8	18541	18349		3	9 17 - 9 25	8	18543	18358
							22	11 45 - 11 54	8	18476	18348		4	9 12 - 9 22	8	18489	18359
Feb.	1	10 39 - 10 55	8	18504	18355		23	9 19 - 9 30	8	18501	18348		5	9 25 - 9 35	8	18501	18358
	2	11 33 - 11 50	8	18515	18353		24	9 16 - 9 30	8	18500	18348		6	9 7 - 9 16	8	18512	18357
	3	10 39 - 10 48	8	18510	18353		25	9 19 - 9 32	8	18492	18348		9	9 12 - 9 22	8	18524	18357
	5	14 57 - 15 11	8	18505	18355		26	9 13 - 9 27	8	18482	18348		10	9 34 - 9 46	8	18483	18358
	7	10 47 - 10 55	8	18526	18354		27	11 14 - 11 35	8	18485	18347		11	9 42 - 9 54	8	18503	18358
	8	10 14 - 10 22	8	18513	18354		29	13 43 - 13 51	8	18528	18347		12	9 28 - 9 40	8	18522	18358
	9	10 40 - 10 48	8	18522	18354		30	9 17 - 9 28	8	18535	18347		13	9 23 - 9 39	8	18532	18358
	10	10 33 - 10 43	8	18523	18353								15	13 40 - 13 52	8	18532	18359
	12	15 12 - 15 20	8	18510	18354								16	9 12 - 9 26	8	18499	18358
	13	10 11 - 10 22	8	18540	18353	May	1	9 6 - 9 16	8	18526	18346		17	9 31 - 9 41	8	18515	18358
	14	10 13 - 10 22	8	18525	18353		2	9 5 - 9 17	8	18523	18349		18	9 2 - 9 13	8	18534	18358
	15	10 7 - 10 16	8	18524	18353		3	9 14 - 9 26	8	18523	18348		19	9 17 - 9 30	8	18521	18358
	17	10 48 - 10 56	8	18537	18352		4	9 20 - 9 31	8	18518	18349		20	9 26 - 9 35	8	18518	18359
	19	14 50 - 14 59	8	18555	18353		6	13 57 - 14 12	8	18552	18348		22	14 2 - 14 13	8	18518	18356
	20	11 8 - 11 18	8	18541	18354		8	9 22 - 9 33	8	18517	18349		23	9 28 - 9 37	8	18524	18356
	22	9 52 - 10 0	8	18542	18352		9	9 39 - 9 56	8	18512	18349		24	9 28 - 9 44	8	18501	18357
	23	9 52 - 10 2	8	18530	18354		10	9 22 - 9 31	8	18530	18349		25	9 20 - 9 30	8	18505	18358
	24	10 10 - 10 19	8	18525	18352		11	9 31 - 9 42	8	18511	18348		26	9 10 - 9 21	8	18529	18358
	26	13 53 - 14 2	8	18530	18353		13	15 25 - 15 33	8	18533	18348		27	9 12 - 9 22	8	18535	18358
	28	9 17 - 9 28	8	18536	18352		15	9 56 - 10 6	8	18521	18348		29	14 3 - 14 12	8	18551	18358
	29	10 2 - 10 14	8	18542	18353		16	9 21 - 9 32	8	18531	18349		30	9 18 - 9 33	8	18523	18357
							17	9 17 - 9 27	8	18547	18348		31	8 58 - 9 12	8	18508	18357
							18	9 13 - 9 25	8	18507	18349						
Mar.	1	9 12 - 9 25	8	18530	18353		20	14 1 - 14 9	8	18539	18348						
	2	10 13 - 10 27	8	18524	18353		21	9 15 - 9 26	8	18522	18349						
	4	13 44 - 13 58	8	18540	18352		22	9 16 - 9 27	8	18481	18349						
	5	9 47 - 10 5	8	18535	18352		23	9 16 - 9 28	8	18516	18349						
	6	9 13 - 9 25	8	18533	18353		24	9 12 - 9 29	8	18444	18349						
	7	9 11 - 9 22	8	18530	18352		25	9 20 - 9 31	8	18502	18349						
	8	9 31 - 9 44	8	18543	18353		27	13 52 - 14 1	8	18526	18347						
	9	9 12 - 9 22	8	18517	18351		28	9 11 - 9 20	8	18517	18348						
	11	13 53 - 14 4	8	18529	18350		29	9 7 - 9 19	8	18507	18348						
	12	10 19 - 10 29	8	18523	18351		30	9 16 - 9 27	8	18520	18349			</td			

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line	Universal Time				No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line	Universal Time				No. of Obs.	Observed Horizontal Intensity	Deduced Value of Base-line								
	h	m	h	m	Y	Y		h	m	h	m	Y	Y		h	m	h	m	Y	Y								
Aug. 19	11	43	-	11	52	8	18513	18356	Oct.	3	9	25	-	9	35	8	18468	18355	Nov.	16	9	30	-	9	41	8	18535	18355
20	9	38	-	9	54	8	18514	18356	4	9	25	-	9	35	8	18498	18355	18	9	32	-	9	46	8	18530	18355		
21	9	23	-	9	34	8	18509	18356	5	9	40	-	9	49	8	18514	18354	19	9	27	-	9	38	8	18542	18356		
22	0	51	-	1	11	8	18559	18356	7	13	46	-	13	55	8	18466	18354	20	9	43	-	9	55	8	18547	18354		
23	9	7	-	9	17	8	18510	18356	8	9	1	-	9	16	8	18468	18355	21	10	18	-	10	29	8	18494	18354		
24	9	13	-	9	28	8	18503	18356	9	9	2	-	9	15	8	18524	18355	22	9	19	-	9	27	8	18519	18354		
26	10	41	-	10	49	8	18526	18357	10	8	54	-	9	10	8	18534	18353	23	9	37	-	9	54	8	18464	18354		
27	9	23	-	9	36	8	18508	18356	11	9	31	-	9	46	8	18524	18355	25	9	34	-	9	47	8	18494	18355		
28	9	13	-	9	27	8	18514	18357	12	9	31	-	9	40	8	18526	18355	26	9	39	-	9	52	8	18514	18354		
29	9	26	-	9	39	8	18516	18356	14	0	10	-	0	29	8	18544	18353	27	9	45	-	9	56	8	18538	18354		
30	9	21	-	9	31	8	18526	18356	15	9	23	-	9	33	8	18515	18353	28	9	43	-	9	56	8	18531	18354		
31	9	59	-	10	9	8	18537	18356	16	9	42	-	9	53	8	18530	18355	29	9	38	-	9	51	8	18527	18354		
									17	9	37	-	9	48	8	18533	18355	30	10	36	-	10	46	8	18507	18355		
Sept. 2	1	19	-	1	34	8	18541	18357	18	9	32	-	9	41	8	18532	18354											
3	9	45	-	9	55	8	18488	18356	19	9	31	-	9	40	8	18488	18354											
4	9	14	-	9	27	8	18464	18355	21	13	40	-	13	50	8	18537	18354											
5	9	45	-	9	54	8	18495	18356	22	9	29	-	9	47	8	18528	18354											
6	9	38	-	9	49	8	18503	18357	23	9	26	-	9	39	8	18520	18354											
7	9	53	-	10	4	8	18477	18356	24	9	46	-	9	56	8	18522	18355											
9	2	17	-	2	39	8	18545	18357	25	9	30	-	9	39	8	18545	18354											
10	9	30	-	9	43	8	18515	18357	26	9	42	-	9	54	8	18555	18354											
11	9	41	-	9	53	8	18504	18357	28	9	24	-	9	36	8	18528	18355											
13	9	15	-	9	28	8	18521	18356	29	9	23	-	9	39	8	18529	18354											
14	9	23	-	9	34	8	18527	18356	30	9	43	-	9	55	8	18522	18354											
16	14	28	-	14	39	8	18541	18356	31	9	35	-	9	45	8	18509	18355											
17	13	38	-	13	48	8	18543	18356																				
18	0	11	-	0	38	8	18556	18356																				
19	9	24	-	9	36	8	18524	18355	NOV.	1	9	24	-	9	34	8	18533	18354	16	9	34	-	9	48	8	18537	18352	
20	9	33	-	9	42	8	18523	18356	2	9	48	-	9	56	8	18530	18354	17	9	30	-	9	44	8	18547	18352		
23	14	7	-	14	18	8	18534	18355	4	9	45	-	9	54	8	18516	18356	18	9	39	-	9	55	8	18550	18351		
24	9	21	-	9	30	8	18519	18355	5	9	36	-	9	47	8	18516	18356	19	9	31	-	9	43	8	18544	18352		
25	0	25	-	0	41	8	18537	18354	6	9	37	-	9	49	8	18521	18355	20	9	35	-	9	46	8	18544	18353		
26	9	16	-	9	26	8	18524	18354	7	9	36	-	9	47	8	18529	18355	21	9	38	-	9	50	8	18509	18353		
27	9	49	-	9	59	8	18487	18355	8	9	29	-	9	40	8	18532	18355	23	9	39	-	9	49	8	18540	18353		
28	9	21	-	9	39	8	18510	18355	9	9	31	-	9	43	8	18522	18355	24	9	38	-	9	49	8	18529	18353		
30	13	53	-	14	5	8	18525	18354	11	9	34	-	9	45	8	18541	18355	26	9	40	-	9	49	8	18506	18352		
									12	9	48	-	10	1	8	18500	18355	27	9	37	-	9	45	8	18542	18352		
									13	9	31	-	9	43	8	18497	18356	28	9	37	-	9	47	8	18526	18352		
Oct. 1	9	21	-	9	35	8	18492	18355	14	9	37	-	9	48	8	18517	18355	30	9	36	-	9	46	8	18530	18352		
2	9	31	-	9	42	8	18495	18355	15	9	31	-	9	43	8	18528	18354	31	9	23	-	9	35	8	18538	18352		

TABLE XIV(A). - RESULTS OF THE DETERMINATIONS OF THE ABSOLUTE VALUE OF HORIZONTAL INTENSITY FROM OBSERVATIONS MADE WITH THE UNIFILAR MAGNETOMETER CASELLA 181 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	Y	Y		h	m	h	m	Y	Y		h	m	h	m	Y	Y				
Jan. 10	10	18	-	11	55	18546	18357	July 24	9	25	-	11	45	18505	18357	Aug. 27	9	9	-	11	7	18515	18360
							30	9	23	-	11	24	18524	18360									
Mar. 5	9	17	-	10	14	18536	18352	Aug. 9	9	13	-	10	44	18473	18356	Sept. 4	9	31	-	10	49	18468	18359
							15	9	52	-	10	51	18517	18361									
July 16	14	5	-	15	27	18541	18357	21	9	24	-	11	23	18515	18359	Oct. 22	9	37	-	11	7	18517	18355

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

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									
Jan.	1	15	50	-	16	39	8	43088	42951	Mar.	20	9	32	-	9	53	8	43089	42989	June	4	9	55	-	10	24	8	43071	42990
	2	10	31	-	10	53	8	43088	42952		21	9	38	-	10	7	8	43091	42992		5	9	47	-	10	18	8	43085	42995
	3	10	15	-	10	39	8	43087	42952		23	9	50	-	10	13	8	43076	42989		6	10	33	-	10	57	8	43070	42991
	4	10	13	-	10	28	8	43105	42950		26	14	6	-	14	26	8	43127	42990		7	10	5	-	10	33	8	43088	42993
	5	10	22	-	10	43	8	43090	42950		27	9	41	-	10	2	8	43105	42989		8	10	1	-	10	40	8	43087	42992
	6	10	17	-	10	38	8	43090	42955		28	9	52	-	10	28	8	43102	42989		10	14	16	-	14	40	8	43084	42991
	8	16	28	-	16	55	8	43096	42955		29	9	25	-	10	57	8	43090	42988		11	9	29	-	10	7	8	43093	42992
	9	10	37	-	10	53	8	43092	42954		30	9	43	-	10	0	8	43109	42988		12	10	6	-	10	38	8	43089	42991
	10	9	59	-	10	28	8	43089	42953												13	9	42	-	10	12	8	43083	42990
	11	9	59	-	10	16	8	43083	42953										14	9	37	-	10	7	8	43083	42992		
	12	9	54	-	10	16	8	43091	42951										15	9	31	-	9	55	8	43081	42992		
	13	9	56	-	10	14	8	43089	42950										17	16	25	-	16	42	8	43114	42993		
	15	15	20	-	15	38	8	43094	42953										18	9	24	-	9	51	8	43082	42993		
	16	10	27	-	10	44	8	43082	42951										19	9	48	-	10	11	8	43086	42992		
	17	10	9	-	10	23	8	43087	42952										20	9	35	-	9	57	8	43094	42994		
	18	10	35	-	10	54	8	43087	42952										21	9	31	-	9	49	8	43087	42993		
	19	10	25	-	10	39	8	43105	42949										22	9	35	-	9	53	8	43090	42992		
	22	14	54	-	15	18	8	43095	42951										24	14	4	-	14	24	8	43091	42993		
	23	10	6	-	10	21	8	43082	42951										25	9	39	-	10	4	8	43069	42994		
	24	10	11	-	10	26	8	43088	42950										26	9	34	-	10	10	8	43112	42994		
	25	10	31	-	10	56	8	43084	42954										27	9	49	-	10	20	8	43105	42994		
	26	10	7	-	10	54	8	43083	42950										28	9	32	-	9	51	8	43096	42994		
	27	10	21	-	10	40	8	43086	42954										29	9	31	-	9	53	8	43088	42992		
	29	16	19	-	16	36	8	43094	42953																				
	30	10	25	-	10	42	8	43087	42954																				
	31	10	18	-	10	30	8	43090	42954																				
Feb.	1	10	13	-	10	32	8	43097	42953	May	1	9	25	-	9	46	8	43082	42992	July	1	14	7	-	14	29	8	43097	42988
	2	10	22	-	10	44	8	43098	42955		22	13	50	-	14	4	8	43088	42989		2	9	33	-	10	12	8	43083	42990
	3	10	10	-	10	33	8	43092	42953		23	9	46	-	10	13	8	43085	42990		3	9	37	-	10	11	8	43090	42994
	5	15	23	-	15	43	8	43100	42955		24	9	37	-	9	56	8	43088	42990		4	9	34	-	10	13	8	43094	42993
	7	10	22	-	10	42	8	43082	42991		25	9	38	-	10	0	8	43080	42991		5	9	42	-	10	4	8	43098	42993
	8	10	32	-	10	56	8	43086	42986		26	9	37	-	9	58	8	43091	42990		6	9	23	-	9	49	8	43084	42993
	9	10	11	-	10	32	8	43083	42986		27	10	12	-	10	43	8	43090	42992		9	9	47	-	10	11	8	43082	42991
	10	10	6	-	10	26	8	43078	42985		29	13	58	-	14	21	8	43091	42991		10	10	3	-	10	29	8	43090	42992
	12	14	46	-	15	7	8	43091	42986		30	9	37	-	10	7	8	43078	42990		11	10	9	-	10	38	8	43091	42993
	13	10	32	-	10	55	8	43072	42986										12	9	54	-	10	24	8	43084	42992		
	14	10	29	-	10	59	8	43082	42988										13	9	52	-	10	16	8	43071	42992		
	15	10	27	-	10	49	8	43073	42984										15	14	1	-	14	26	8	43107	42993		
	17	10	18	-	10	43	8	43081	42985										16	9	35	-	10	13	8	43093	42994		
	19	15	8	-	15	36	8	43079	42984										17	9	51	-	10	16	8	43104	42993		
	20	10	17	-	10	52	8	43085	42988										18	9	19	-	9	45	8	43092	42993		
	22	10	37	-	10	57	8	43079	42989										19	9	37	-	10	3	8	43089	42991		
	23	10	17	-	10	37	8	43081	42988										22	14	22	-	14	47	8	43107	42994		
	24	10	26	-	10	50	8	43078	42988										23	9	44	-	10	7	8	43088	42994		
	26	14	10	-	14	31	8	43097	42991										24	10	0	-	10	36	8	43096	42994		
	28	9	36	-	9	55	8	43084	4298																				

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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

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									
Aug.	19	13	42	-	14	16	8	43081	42989	Oct.	2	9	49	-	10	18	8	43107	42998	Nov.	15	9	56	-	10	27	8	43104	42999
	20	10	7	-	10	55	8	43075	42991		3	9	46	-	10	5	8	43107	42997		16	9	53	-	10	14	8	43101	42999
	21	9	48	-	10	34	8	43072	42993		4	9	43	-	10	3	8	43107	42997		18	9	57	-	10	36	8	43099	42998
	22	1	26	-	2	28	8	43098	42993		5	9	59	-	10	27	8	43093	42995		19	9	49	-	10	22	8	43102	42999
	23	9	25	-	9	49	8	43088	42994		7	14	14	-	14	41	8	43148	42998		20	10	3	-	10	30	8	43100	42997
	24	9	35	-	10	14	8	43094	42993		8	9	29	-	9	53	8	43099	42996		21	9	17	-	10	8	8	43099	42998
	26	11	20	-	11	54	8	43074	42994		9	9	29	-	9	59	8	43112	42997		22	9	42	-	10	12	8	43093	42998
	27	9	58	-	10	29	8	43090	42992		10	9	34	-	9	56	8	43108	42998		23	10	14	-	10	46	8	43118	42998
	28	9	40	-	10	16	8	43091	42991		11	9	55	-	10	15	8	43102	42997		25	10	0	-	10	32	8	43103	42997
	29	9	49	-	10	8	8	43076	42991		12	9	51	-	10	17	8	43103	42999		26	10	3	-	10	35	8	43111	42998
	30	9	42	-	10	15	8	43087	42994		14	0	54	-	1	20	8	43106	42997		27	10	10	-	10	37	8	43106	42997
	31	9	19	-	9	41	8	43093	42995		15	9	44	-	10	7	8	43093	42997		28	10	9	-	10	39	8	42101	42999
											16	10	3	-	10	33	8	43096	42997		29	10	2	-	10	24	8	43102	42996
											17	9	57	-	10	24	8	43103	42997		30	9	53	-	10	25	8	43109	42997
Sept.	2	1	57	-	2	53	8	43103	42993		18	9	49	-	10	23	8	43095	42996										
	3	10	10	-	10	30	8	43085	42994		19	9	55	-	10	20	8	43104	42998										
	4	9	45	-	10	19	8	43088	42991		21	14	1	-	14	28	8	43107	42995										
	5	10	3	-	10	32	8	43091	42993		22	9	58	-	10	27	8	43099	42995										
	6	10	5	-	10	41	8	43081	42993		23	9	52	-	10	16	8	43104	42996										
	7	9	24	-	9	48	8	43084	42994		24	10	4	-	10	27	8	43104	42995										
	9	13	41	-	14	12	8	43107	42996		25	9	46	-	10	9	8	43095	42997										
	10	9	57	-	10	45	8	43094	42996		26	10	9	-	10	26	4	43092	42996										
	11	10	4	-	10	47	8	43084	42997		28	9	48	-	10	12	8	43105	42997										
	13	9	45	-	10	16	8	43083	42995		29	9	46	-	10	18	8	43107	42998										
	14	9	40	-	10	11	8	43086	42998		30	10	3	-	10	30	8	43102	42997										
	16	13	50	-	14	22	8	43101	42995		31	10	1	-	10	27	8	43102	42996										
	17	14	5	-	14	27	8	43094	42995												14	9	56	-	10	26	8	43103	42998
	18	9	35	-	9	59	8	43089	42993												16	10	4	-	10	37	8	43099	42998
	19	9	47	-	10	27	8	43078	42994	Nov.	1	9	47	-	10	16	8	43105	42997		17	9	53	-	10	18	8	43103	42999
	20	10	15	-	10	50	8	43062	42994		2	10	7	-	10	30	8	43104	42999		18	10	5	-	10	32	8	43104	42997
	23	14	32	-	15	4	8	43095	42997		4	10	7	-	10	33	8	43101	42998		19	9	54	-	10	30	8	43099	42997
	24	9	44	-	10	42	8	43091	42997		5	9	57	-	10	19	8	43111	42998		20	10	1	-	10	57	8	43097	42997
	25	1	2	-	1	46	8	43105	42997		6	10	0	-	10	23	8	43108	42999		21	9	59	-	10	29	8	43117	42995
	26	9	35	-	10	11	8	43093	42997		7	9	54	-	10	17	8	43102	42997		23	10	1	-	10	22	8	43108	42995
	27	10	8	-	10	42	8	43101	42997		8	9	50	-	10	11	8	43103	42998		24	9	58	-	10	28	8	43108	42997
	28	9	50	-	10	16	8	43092	42996		9	9	59	-	10	20	8	43100	42998		26	10	1	-	10	29	8	43105	42999
	30	14	20	-	14	45	5	43102	42997		11	9	55	-	10	12	8	43097	42998		27	9	55	-	10	22	8	43101	42996
											12	10	15	-	10	41	8	43099	42999		28	10	5	-	10	26	8	43103	42997
											13	9	51	-	10	20	8	43099	42999		30	10	2	-	10	32	8	43113	42997
Oct.	1	9	45	-	10	25	8	43101	43001		14	9	55	-	10	19	8	43102	42999		31	9	43	-	10	15	8	43107	42998

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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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
1	Y 42951	Y 42955	Y 42989	-	Y 42999	Y 43001	Y 42995	Y 43000	-	Y 43002	Y 43000	-
2	42950	42956	42994	42994	42998	-	42998	42995	43001	43003	43001	42998
3	42967	42956	-	43001	42997	43002	42993	42997	43002	42998	-	43001
4	42959	-	42997	43003	42996	42999	42996	-	42996	43004	43002	43003
5	42951	42957	43002	42993	-	42991	42995	43001	43000	43001	43003	43003
6	42951	-	42996	42990	43001	42992	42996	42992	42996	-	43003	43002
7	-	42997	42989	-	-	42994	-	42995	42997	43000	43002	42999
8	42955	42996	42991	42990	43000	42989	-	42996	-	43004	43006	-
9	42956	42995	42990	42994	42996	-	42997	42995	43001	42997	43006	42998
10	42964	42992	-	42998	43000	42995	42999	42999	43000	43000	-	43000
11	42952	-	42998	42996	42996	-	42997	-	43002	43001	43003	42998
12	42954	42993	42986	42995	-	42991	42996	43002	-	43000	43003	42998
13	42958	42987	42998	42991	43000	42992	42995	42997	42997	-	43004	42998
14	-	42987	42995	-	-	42996	-	42998	42994	42999	43006	43001
15	42956	42991	42995	42991	42998	42993	42996	42999	-	43000	43003	-
16	42957	-	42991	42994	42996	-	42987	42995	43001	43001	43006	43003
17	42956	42986	-	42997	43001	42994	42997	42996	43005	43002	-	43002
18	42958	-	42993	42999	42994	42994	42995	-	42999	42998	43004	42999
19	42949	42985	42994	42997	-	42992	42997	42997	43003	42997	43007	42997
20	-	42988	42991	42992	42998	42997	42993	42996	42997	-	43006	42997
21	-	-	42996	-	42997	42994	-	43000	43003	43000	43005	42998
22	42954	42990	-	42996	42997	42994	-	42995	-	42996	43003	-
23	42958	42988	42996	42997	42999	-	42994	42999	43001	43001	43006	42993
24	42958	42986	-	42997	43003	42999	42996	42995	42998	42998	-	42997
25	42950	-	-	42997	42996	42995	43003	-	42998	43001	43007	-
26	42958	-	42990	42994	-	42993	42994	42998	43000	43000	43005	43001
27	42958	42990	42995	-	43005	42994	42995	42995	42999	-	43002	43001
28	-	42996	42994	42998	43001	42995	-	42999	43001	43000	42995	43001
29	42960	42991	42990	42999	42997	42998	43000	42995	-	43002	42999	-
30	42960		42989	42991	42999	-	42995	42992	42997	43000	42999	43001
31	42968		-		43001		42996	42999		43000		43003

Adjustments were made to the variometer on February 6 and 7.

Adjustments of the bearings of the axis of the rotating coil of the Inductor was made on June 5 and November 27.

## MAGNETIC OBSERVATIONS, ABINGER 1940.

TABLE XVI(A). - 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° 4366	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
					1906	16 3' 6	0° 1854	0° 4353	66 55' 6
					1907	15 59' 6	0° 1855	0° 4357	66 56' 2
1862	20 52' 6	0° 1763	0° 4403	68 9' 6	1908	15 53' 5	0° 1854	0° 4356	66 56' 3
1863	20 45' 9	0° 1764	0° 4396	68 7' 0	1909	15 47' 6	0° 1854	0° 4348	66 54' 1
1864	..	0° 1767	0° 4393	68 4' 1	1910	15 41' 2	0° 1855	0° 4345	66 52' 8
1865	20 33' 9	0° 1767	0° 4388	68 2' 7	1911	15 33' 0	0° 1855	0° 4342	66 52' 1
1866	20 28' 0	0° 1773	0° 4397	68 1' 3	1912	15 24' 3	0° 1855	0° 4340	66 51' 8
1867	20 20' 5	0° 1777	0° 4392	67 57' 2	1913	15 15' 2	0° 1853	0° 4333	66 50' 5
1868	20 13' 1	0° 1779	0° 4395	67 56' 5					
1869	20 4' 1	0° 1782	0° 4396	67 54' 8					
1870	19 53' 0	0° 1784	0° 4392	67 52' 5	1914	15 6' 3	0° 1853	0° 4333	66 50' 8
1871	19 41' 9	0° 1786	0° 4389	67 50' 3	1915	14 58' 5	0° 1851	0° 4331	66 51' 6
1872	19 36' 8	0° 1789	0° 4383	67 47' 8	1916	14 46' 9	0° 1848	0° 4326	66 52' 2
1873	19 33' 4	0° 1793	0° 4386	67 45' 8	1917	14 37' 1	0° 1848	0° 4330*	66 53' 0
1874	19 28' 9	0° 1797	0° 4387	67 43' 6	1918	14 27' 8	0° 1846	0° 4325	66 52' 8
1875	19 21' 2	0° 1797	0° 4383	67 42' 4	1919	14 18' 2	0° 1845	0° 4324	66 53' 3
1876	19 8' 3	0° 1799	0° 4383	67 41' 0	1920	14 8' 6	0° 1845	0° 4325	66 53' 6
1877	18 57' 2	0° 1800	0° 4381	67 39' 7	1921	13 57' 6	0° 1845	0° 4322	66 53' 0
1878	18 49' 3	0° 1802	0° 4382	67 38' 2	1922	13 46' 7	0° 1844	0° 4318	66 52' 3
1879	18 40' 5	0° 1805	0° 4382	67 37' 0	1923	13 35' 1	0° 1843	0° 4314	66 51' 9
1880	18 32' 6	0° 1805	0° 4380	67 35' 7	1924	13 22' 8	0° 1843	0° 4311	66 51' 6
1881	18 27' 1	0° 1807	0° 4379	67 34' 7	1925	13 9' 9	0° 1841	0° 4308	66 51' 4

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.

TABLE XVI(B). - MEAN ANNUAL VALUES OF MAGNETIC ELEMENTS DETERMINED AT THE ABINGER MAGNETIC STATION,  
FOR THE YEARS 1925-1940

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
1939	10 51° 9	0° 18528	0° 43074	66 43° 5
1940	10 43° 0	0° 18533	0° 43099	66 43° 9

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' in H and -3° 9' in Z were introduced in 1938. See Introduction p. x and xi.

**January.** During the first two days there was considerable unsteadiness which was followed by a brisk, though short-lived, disturbance having a well marked sudden commencement at 3<sup>d</sup> 14<sup>h</sup> 39<sup>m</sup> (Plate I). The range in this disturbance was greatest in vertical intensity, which in two hours increased 160γ and then suffered a steady decline, reaching normal by 4<sup>d</sup> 1<sup>h</sup>. The range in H was 140γ and in D, 48'. Several prominent waves appeared in the traces during 4<sup>d</sup> to 7<sup>d</sup> - one of +80γ in H at 4<sup>d</sup> 21<sup>h</sup> and one of +20' in D at 6<sup>d</sup> 18½<sup>h</sup> being perhaps the most noteworthy - and conditions remained rather unsteady throughout several succeeding days. At about 10<sup>d</sup> 13½<sup>h</sup> another period of moderate disturbance began. This lasted until 13<sup>d</sup> 0<sup>h</sup>, though there was a relatively quiet interval from 10<sup>d</sup> 22<sup>h</sup> to 11<sup>d</sup> 18<sup>h</sup>. The range in H was 160γ and in Z, 75γ. The period from 13<sup>d</sup> 0<sup>h</sup> to 15<sup>d</sup> 0<sup>h</sup> was almost quiet. Then small oscillatory movements began which soon increased in amplitude and irregularity. From 16<sup>d</sup> 12<sup>h</sup> general unsteadiness was shown which later culminated in a moderate disturbance lasting from 18<sup>d</sup> 14<sup>h</sup> to 22<sup>h</sup>. During this short active stage there was a range of 45' in D, over 200γ in H and 150γ in Z, (Plate I). The prevailing characteristic during subsequent days was small undulatory movement with a few larger irregularities superposed. Gradually the latter preponderated and from 29<sup>d</sup> 16<sup>h</sup> general unsteadiness merged into a state of mild disturbance with movements in H frequently exceeding 50γ.

The range in declination during the month was from 10° 12'·2 on 18th to 11° 19'·7 on 3rd, in horizontal intensity, from ·18337 on 18th to ·18605 on 7th; in vertical intensity, from ·43072 on 6th to ·43256 on 3rd.

**February.** Almost continuous unsteadiness characterised the traces throughout the month, though the periods from 13<sup>d</sup> to 15<sup>d</sup> and 17<sup>d</sup> to 19<sup>d</sup> were least affected. Greater activity was shown on 1st (a wave in H, +100γ, at 17½<sup>h</sup>); on 3rd (a wave in D, +15', at 17½<sup>h</sup>); and during a further period which began abruptly at 24<sup>d</sup> 22<sup>h</sup> 10<sup>m</sup> and lasted about 24 hours.

The range in declination during the month was from 10° 3'·2 to 10° 45'·3 both on 18th; in horizontal intensity from ·18442 on 25th to ·18607 on 1st; in vertical intensity, from ·43060 on 20th to ·43161 on 25th.

**March.** The month began with nearly quiet conditions. A few irregularities appeared on 3rd and 4th and unsteadiness increased during 7th. The first disturbance of the month occurred between 8<sup>d</sup> 20<sup>h</sup> and 9<sup>d</sup> 5<sup>h</sup>. It was undulatory in character and slight in degree, the whole range being only 22' in D, 75γ in H and under 60γ in Z. General unsteadiness remained, however, and between 12<sup>d</sup> 16<sup>h</sup> and 13<sup>d</sup> 4<sup>h</sup> there was a second slight disturbance in which the ranges in H and Z respectively were 114γ and 73γ. Small irregularities continued to appear until 17<sup>d</sup> 0<sup>h</sup> at which time a short quiet period set in which lasted until 19<sup>d</sup> 0<sup>h</sup>. The traces then began to show considerable and increasing activity. The range in Z on 19th was 66γ and in H on 20th, 144γ. Activity declined during the next two days, but was renewed at 6<sup>h</sup> on 23rd. Large fluctuations in D and H were shown between 23<sup>d</sup> 21<sup>h</sup> and 24<sup>d</sup> 1<sup>h</sup> (31' in D, 163γ in H) while Z diminished rapidly by 100γ. At 24<sup>d</sup> 13<sup>h</sup> 40<sup>m</sup> all traces began to show rapid fluctuation in the elements. Within two hours one of the greatest storms of the past ninety years was in full development. It was even more remarkable for the intensity of the disturbance than for the extent. Many of the movements of the traces were lost on account of their rapidity. The main part of the storm lasted from 24<sup>d</sup> 15<sup>h</sup> to 25<sup>d</sup> 5<sup>h</sup> during which period the ranges were: 131' in D, 1370γ (at least) in H, and 1000γ in Z. Extremely rapid oscillations continued until 25<sup>d</sup> 15<sup>h</sup> by which time the storm had ceased, (Plate II). A second storm began abruptly at 25<sup>d</sup> 20<sup>h</sup> and lasted about ten hours. It was of only moderate intensity, the ranges being 53' in D, 200γ in H and 210γ in Z. Vertical intensity remained about 200γ below its normal value for some 30 minutes at the climax of this storm, (Plate V). Disturbance in varying amount continued through 26th, 27th and 28th, there being a specially prominent bay in D (-30') at 26<sup>d</sup> 19½<sup>h</sup>. At 29<sup>d</sup> 16<sup>h</sup> 3<sup>m</sup> a sudden movement in all traces was the beginning of a storm or rather, series of storms lasting until the end of April 3. These, though not comparable in violence to the storm of March 24-25 were each of sufficient magnitude to be classed as "great", that is, the ranges in intensity of field were of the order of 500γ. The main features are reproduced in Plates III, IV and V.

The range in declination during the month was from  $9^{\circ} 50' 7''$  to  $12^{\circ} 1' 7''$  both on 24th; in horizontal intensity from '17850 on 25th to '19220 on 24th; in vertical intensity from '42719 on 25th to '43719 on 24th.

April. The period  $2^d 0^h - 19^h$  was a practically quiet interval between two large disturbances, the earlier of which was in progress, though well past its climax, when the month began. The second disturbance started abruptly at  $2^d 19^h 3^m$  and ended about  $3^d 22^h$ . Several movements exceeded 100Y in H, the largest being a wave, +210Y, at  $3^d 2\frac{1}{2}^h$ ; while between  $3^d 1^h$  and  $7^h$  Z was almost 150Y below normal intensity. The main part of the storm was over by  $3^d 9^h$ , (Plate V). From 4<sup>d</sup> conditions became notably quieter for a considerable period, though small irregularities and occasional inconspicuous waves still affected the traces until the end of 6th. From  $7^d 0^h$  to  $11^d 12^h$  all disturbance ceased. Increasing unsteadiness then set in which reached a maximum on 15th, afterwards declining rapidly. About  $19^d 12^h$  another period of unsteadiness began which, without any specially marked features, continued till  $24^d 18^h$ . Ten hours of quiet were succeeded at  $25^d 2^h 5^m$  by the sudden outbreak of a storm which (including a protracted lull between  $25^d 5^h$  and  $17^h$ ) lasted until  $26^d 4^h$ . The most active period was from  $25^d 21^h$  to  $23^h$ , when ranges of 29' in D, 216Y in H and 110Y in Z were recorded, (Plate VI). Activity steadily declined after the end of 26th and no further significant movements occurred.

The range in declination during the month was  $10^{\circ} 14' 7''$  on 3rd to  $11^{\circ} 13' 3''$  on 25th; in horizontal intensity, from '18359 on 1st to '18643 on 2nd; in vertical intensity, from '42964 on 3rd to '43165 on 25th.

May. Apart from small irregularities, which were almost continuous, there were no marked features on the traces during the first week. The quietest day was 6th. On 9th, movements began to grow in size and from  $10^d 12^h$  a state of mild disturbance existed in greater or less degree until the end of 22nd. Movements seldom approached 50Y in H or 10' in D, however, until 18th, on which day disturbance notably increased and one movement of 100Y in H and 20' in D occurred while the value of Z fluctuated within a range of 70Y. Movements almost as great in magnitude also occurred between  $22^d 2^h$  and  $10^h$ . Activity then declined and had almost ceased when a particularly well marked "sudden commencement" in all traces at  $23^d 17^h 54^m$  initiated the most important disturbance of the month, (Plate VI). The special feature of this storm was the relatively large range of 350Y in H. The ranges in D and Z were 31' and 120Y respectively. The storm ended with a number of rather rapid oscillatory movements which had ceased by  $25^d 4^h$ . Irregularities of considerable amount appeared in the traces on 25th and, more notably, on 26th-27th when the range in H exceeded 100Y and that in Z approached 100Y. Conditions then gradually became quiet and no significant departures from a smooth curve appeared on the traces during 31st.

The range in declination during the month was from  $10^{\circ} 28' 8''$  on 27th to  $11^{\circ} 0' 9''$  on 24th; in horizontal intensity, from '18323 on 24th to '18676 on 23rd; in vertical intensity, from '43043 to '43163 both on 24th.

June. Slight general unsteadiness affected the traces during the first five days of the month, and at  $5^d 21^h$  this rapidly increased to the proportions of mild disturbance. Marked fluctuation in intensity continued throughout 6th to 9th inclusive, amounting occasionally to 50 or 60Y in H, while movements of 10' in D were also recorded on several occasions. On 10th conditions returned to the generally prevalent unsteadiness. At about  $14^d 12^h$  a period of brisk activity set in during which there was a range of 190Y in H, 90Y in Z and nearly 30' in D. The principal movement took place between  $14^d 15^h$  and  $15^d 0^h$ . Activity then decreased but great unsteadiness continued until the end of 19th. The 20th and 21st were practically quiet days. A small sudden movement in all traces appeared at  $22^d 10^h 50^m$ , after which, irregularity began again to be shown and subsequently to increase to a marked extent. At  $25^d 2^h 53^m$  there was another sharp movement in all traces which, this time, was followed by a storm of great intensity, which however, was of comparatively short duration. The storm did not at once develop. After a prominent peak in each

trace, but particularly in D (+30'), there was a period of six hours characterised only by small, very rapid oscillatory movement. Full development began at 25<sup>d</sup> 10<sup>h</sup>. The storm reached greatest intensity between 13<sup>h</sup> and 14<sup>h</sup> and was virtually over by the end of the day. The ranges were 52' in D, 468Y in H and 250Y in Z, (Plate VII). A remarkable isolated movement occurred on the following day at 26<sup>d</sup> 17<sup>h</sup> 9<sup>m</sup> when horizontal intensity increased 180Y in seven minutes and then fell to normal value in two stages during the next half hour, (Plate VII). A similar but much smaller change took place in Z at the same time and there was corresponding movement in the D trace. Neither, however, was remarkable. During the remainder of the month the traces, though showing great irregularity, were not affected by movements calling for particular comment.

The range in declination during the month was from 10° 19' 4 to 11° 11' 6; in horizontal intensity, from .18392 to .18860; in vertical intensity, from .43038 to .43288. All these ranges occurred on 25th.

**July.** Continuous small irregularities affected the traces on 1st and 2nd and increased greatly during 3rd, frequently assuming an oscillatory character. The ranges of the movements on 3rd and 4th were about 25Y in H. Rather larger movements appeared occasionally on 5th and then the unsteadiness declined. The period 7<sup>d</sup> 20<sup>h</sup> to 8<sup>d</sup> 22<sup>h</sup> was practically quiet. Considerable activity was shown during 9th and 10th, without special features, the total range in H being 160Y. After two days of nearly quiet conditions a short period of brisk activity began at 13<sup>d</sup> 9<sup>h</sup>. H fluctuated rapidly by amounts exceeding 150Y while Z increased 180Y in six hours. The disturbance proper ceased about 13<sup>d</sup> 20<sup>h</sup>, (Plate VIII), but great unsteadiness persisted throughout the two following days. From 17<sup>d</sup> 0<sup>h</sup> relatively quiet conditions prevailed until 19<sup>d</sup> 20<sup>h</sup>, after which unsteadiness reappeared. This increased during 21st, and on 22nd some movements reached 50Y in H. Unsteadiness prevailed in varying degree for the remainder of the month, though the interval between 26<sup>d</sup> 6<sup>h</sup> and 29<sup>d</sup> 18<sup>h</sup> was least affected. On 30th two or three movements reached 50Y in H.

The range in declination, during the month was from 10° 31' 5 on 4th to 10° 58' 4 on 13th; in horizontal intensity, from .18432 on 13th to .18614 on 9th; in vertical intensity, from .43058 to .43170 both on 13th.

**August.** There was considerable unsteadiness in the elements throughout the first half of the month. In addition there were periods when sharp movements in the traces occurred, although these never lasted long. Noteworthy instances were at 2<sup>d</sup> 19<sup>h</sup> to 20<sup>h</sup> - a wave in H (-100Y) and in D (-14'); at 3<sup>d</sup> 14<sup>1/2</sup>h to 16<sup>h</sup> - a double wave in H ( $\pm$ 100Y); at 3<sup>d</sup> 17<sup>h</sup> - a wave in H (+100Y); and at 9<sup>d</sup> 19<sup>h</sup> to 20<sup>h</sup> - two waves in H (+100Y) with a double wave in D (-10' +12') and a pronounced decrease in Z (70Y). General mild disturbance prevailed during 7th, 8th and 9th. Early on 15th conditions became quiet and so remained until 18<sup>d</sup> 15<sup>h</sup>, when prominent movements began in all traces. One movement in H, at 18<sup>d</sup> 17<sup>h</sup>, almost reached 100Y. The range in Z on 18th and 19th was unusually large. A gradual return to quiet conditions took place after 22nd the period 24<sup>d</sup> 0<sup>h</sup> to 25<sup>d</sup> 12<sup>h</sup> being the calmest of the month. Unsteadiness then began to affect the traces again and developed during 26th to the dimensions of a mild disturbance. A prominent movement showed in all traces at 26<sup>d</sup> 22<sup>h</sup>, that in H being a decrease of 120Y. General unsteadiness was resumed on 27th and persisted in varying degree for the remainder of the month. The period from 29<sup>d</sup> 3<sup>h</sup> to 29<sup>d</sup> 20<sup>h</sup> was, however, practically quiet.

The range in declination during the month was from 10° 27' 7 on 9th to 10° 55' 7 on 3rd; in horizontal intensity, from .18434 on 3rd to .18628 on 9th; in vertical intensity, from .43065 on 25th to .43173 on 3rd.

**September.** Mild disturbance was general throughout the first nine days of the month, but particular mention may be made of the periods 1<sup>d</sup> 0<sup>h</sup> to 1<sup>d</sup> 21<sup>h</sup>, 7<sup>d</sup> 0<sup>h</sup> to 8<sup>d</sup> 2<sup>h</sup> and 9<sup>d</sup> 2<sup>h</sup> to 10<sup>d</sup> 0<sup>h</sup>. On 1st there was a range of 25' in D and 65Y in Z; on 7th there were several movements of 10' in D

accompanied by similar movements up to 50Y in H; on 9th there were some rather rapid oscillations between 18<sup>h</sup> and 24<sup>h</sup> none of which, however, reached the dimensions of those on the 7th. From 10<sup>d</sup> 0<sup>h</sup> to 13<sup>d</sup> 12<sup>h</sup> quiet conditions existed. Unsteadiness then set in, lasting until 16<sup>d</sup> 20<sup>h</sup>. In addition, a prominent bay in H (-75Y) occurred at 14<sup>d</sup> 19<sup>h</sup>, following a sudden movement in all traces at 14<sup>d</sup> 18<sup>h</sup> 10<sup>m</sup>, and there was a short period of brisk activity from 16<sup>d</sup> 12<sup>h</sup> to 16<sup>d</sup> 17<sup>h</sup>. A return to practically quiet conditions was shown soon afterwards which, with negligible exceptions, continued to 20<sup>d</sup> 10<sup>h</sup>. Considerable activity prevailed from 20<sup>d</sup> 12<sup>h</sup> to 21<sup>d</sup> 18<sup>h</sup> comprising in the earlier stages movements of over 50Y in H and 10' in D. After a further quiet period extending from 23<sup>d</sup> 0<sup>h</sup> to 24<sup>d</sup> 20<sup>h</sup> unsteadiness set in and rapidly increased to the dimensions of a mild disturbance. This temporarily died away at 26<sup>d</sup> 0<sup>h</sup>, but at 26<sup>d</sup> 17<sup>h</sup> 4<sup>m</sup> a sudden movement occurred in all traces, typical of the onset of a magnetic storm of considerable magnitude, and was followed immediately by a series of extremely rapid oscillations. The storm proved to be in no way remarkable however, and the most active stage had passed by 24<sup>d</sup> 4<sup>h</sup>, (Plate VIII). Continuous oscillation of an irregular character was prolonged until 29<sup>d</sup> 4<sup>h</sup>, a number of the movements exceeding 75Y in H, 10' in D and 25Y in Z. A specially prominent peak appeared at 28<sup>d</sup> 18<sup>h</sup> in each trace, (Plate IX). Thereafter the movements rapidly subsided until only an occasional wave disturbed nearly smooth traces.

The range in declination during the month was from 10° 2' 6" on 26th to 10° 57' 3" on 1st; in horizontal intensity, from '18407 to '18637, both on 26th; in vertical intensity, from '43037 on 27th to '43176 on 26th.

**October.** A brisk disturbance developed soon after 13<sup>h</sup> on 1st and lasted until 22<sup>h</sup>. The main feature was a general decrease in declination (35') between 1<sup>d</sup> 14<sup>h</sup> and 1<sup>d</sup> 20<sup>h</sup> - which then partially recovered - together with a steady increase in Z (80Y) until 18<sup>h</sup>, followed by a rapid return to normal. The movements in H were numerous but the largest did not exceed 70Y. During the next three days there was considerable unsteadiness, which culminated in a prominent wave in D (20') and in H (+90Y) at 3<sup>d</sup> 18<sup>h</sup>; thereafter quieter conditions set in and continued until 6<sup>d</sup> 8<sup>h</sup>. From about 6<sup>d</sup> 21<sup>h</sup> unsteadiness increased rapidly to the dimensions of a moderate disturbance. There was a prominent wave in D (+15') at 6<sup>d</sup> 21<sup>h</sup>; between 7<sup>d</sup> 6<sup>h</sup> and 7<sup>d</sup> 8<sup>h</sup> H decreased 120Y, and by 7<sup>d</sup> 14<sup>h</sup> the main disturbance was in progress. In D and H the characteristic was frequent irregular oscillation with total ranges of 40' and 280Y respectively; in Z there was first a general increase of 110Y followed, from 7<sup>d</sup> 18<sup>h</sup>, by a fluctuating decrease of 170Y, which ended at 8<sup>d</sup> 4<sup>h</sup> and was succeeded by similar though considerably smaller changes in the next twenty four hours, (Plate X). Quiet then prevailed from 9<sup>d</sup> 1<sup>h</sup> until 10<sup>d</sup> 20<sup>h</sup>. Moderate unsteadiness was general between 11<sup>d</sup> and 18<sup>d</sup> without noteworthy features but became intensified during the second half of 18th, and a state of moderate activity existed until 22<sup>d</sup> 15<sup>h</sup>. A few movements approaching 50Y occurred in H in this period. A further quiet spell lasted from 22<sup>d</sup> 15<sup>h</sup> to 25<sup>d</sup> 10<sup>h</sup>, after which, signs of an approaching disturbance appeared at about 25<sup>d</sup> 14<sup>h</sup>. The initial stage of the disturbance consisted of a number of irregular oscillations - chiefly in H - accompanied by a general decrease in D of about 15'. This occurred between 25<sup>d</sup> 20<sup>h</sup> and 26<sup>d</sup> 0<sup>h</sup>. A nearly quiet interval followed, terminated at 26<sup>d</sup> 8<sup>h</sup> by the gradual development of the main disturbance. The principal features of this were: a temporary decrease in H from 26<sup>d</sup> 14<sup>h</sup> to 26<sup>d</sup> 22<sup>h</sup> with a number of fairly sharp fluctuations, a few exceeding 50Y; great irregularity in D, with a total range of 30' during the same period; and a much increased diurnal inequality in Z (60Y). From 27<sup>d</sup> 0<sup>h</sup> disturbance rapidly subsided, leaving a state of marked unsteadiness, however, which persisted until 28<sup>d</sup> 6<sup>h</sup>. Thereafter the only noteworthy features were a few isolated waves in each trace, the largest of which occurred at 28<sup>d</sup> 20<sup>h</sup>.

The range in declination during the month was from 10° 13' 6" on 7th to 10° 54' 5" on 1st; in horizontal intensity, from '18422 on 7th to '18609 on 21st; in vertical intensity, from '43034 on 8th to '43203 on 7th.

**November.** The month began with quiet conditions prevailing. Irregularity in the traces developed on 3rd and increased during 4th. Between 4<sup>d</sup> 16<sup>h</sup> and 5<sup>d</sup> 6<sup>h</sup> nearly regular oscillation in the H and D

traces was a prominent feature, some of the waves being 50γ in extent in H, while Z showed a slow upward surge of 60γ. Conditions then became nearly quiet again and so remained until 12<sup>d</sup> 8<sup>h</sup>, with the exception of a few small irregularities (notably on 9th). The first definite disturbance in the month developed gradually from 12<sup>d</sup> 8<sup>h</sup>. Many small fluctuations showed on the traces before 12<sup>d</sup> 21<sup>h</sup>. Movements then became much larger and more irregular. A wave in H (+120γ) occurred at 12<sup>d</sup> 21<sup>1/2</sup><sup>h</sup> and was accompanied by a decrease of 60γ in Z. A temporary increase of H (80γ) at 13<sup>d</sup> 3<sup>1/2</sup><sup>h</sup> followed by three waves in D, 20' in extent, marked the culmination of the disturbance, which thereafter rapidly subsided. From 13<sup>d</sup> 9<sup>h</sup> a normal state of moderate unsteadiness prevailed until 20<sup>d</sup> 15<sup>h</sup> interrupted by two short bursts of activity, between 16<sup>d</sup> 16<sup>h</sup> and 17<sup>d</sup> 0<sup>h</sup> and between 17<sup>d</sup> 15<sup>h</sup> and 18<sup>d</sup> 1<sup>h</sup> respectively. Conditions varied from "considerable unsteadiness" to "mild activity" during the remainder of the month. Periods of unsteadiness were chiefly comprised in the intervals 23<sup>d</sup> 10<sup>h</sup> to 25<sup>d</sup> 8<sup>h</sup>; 26<sup>d</sup> 6<sup>h</sup> to 28<sup>d</sup> 20<sup>h</sup> and 30<sup>d</sup> 0<sup>h</sup> to 24<sup>h</sup>. The principal periods of activity were 25<sup>d</sup> 8<sup>h</sup> to 26<sup>d</sup> 8<sup>h</sup> and 28<sup>d</sup> 21<sup>h</sup> to 30<sup>d</sup> 0<sup>h</sup>. During the first of these two active periods several movements of approximately 100γ occurred in H, the largest being a wave at 25<sup>d</sup> 15<sup>h</sup> (-120γ), and there were also large oscillations in D (20') accompanying them. The diurnal range in Z was greatly increased as well and amounted to 90γ, (Plate XI). The second period was chiefly remarkable for the frequency of the movements, though one wave in D approached 20'.

The range in declination during the month was from 10° 15'·9 on 13th to 11° 0'·6 on 25th; in horizontal intensity, from ·18403 on 25th to ·18601 on 29th; in vertical intensity, from ·43040 on 13th to ·43170 on 4th and 25th.

**December.** During the first four days considerable unsteadiness was exhibited by the traces, movements up to 70γ in H and 10' in D being recorded on 2nd. Quiet conditions then prevailed until the end of 8th. From 9<sup>d</sup> 5<sup>h</sup> irregularities re-appeared, few of which, however, were at all conspicuous. There was a sharp decrease in H (70γ) at 10<sup>d</sup> 16<sup>1/2</sup><sup>h</sup> and a short period of minor activity extending from 11<sup>d</sup> 20<sup>h</sup> to 12<sup>d</sup> 2<sup>h</sup>. From 14<sup>d</sup> 12<sup>h</sup> to 16<sup>d</sup> 2<sup>h</sup> numerous fluctuations were recorded, several of which exceeded 50γ in H. Activity then declined again until 20<sup>d</sup> 6<sup>h</sup>. At 20<sup>d</sup> 9<sup>h</sup> a rapid decrease in H occurred (100γ) which was the initial movement of a brisk disturbance. The disturbance, though not remarkable for range of movement, was rather protracted and, (if a relatively quiet interval between 22<sup>d</sup> 19<sup>h</sup> and 23<sup>d</sup> 12<sup>h</sup> be neglected), lasted until 24<sup>d</sup> 0<sup>h</sup>. The most active period was from 20<sup>d</sup> 12<sup>h</sup> to 21<sup>d</sup> 8<sup>h</sup> when numerous sharp fluctuations in H and D were shown some of which approached 100γ and 20' respectively, and there was an increased diurnal range in Z. A prominent peak in the H trace (+120γ) occurred at 21<sup>d</sup> 20<sup>1/2</sup><sup>h</sup>. The last noteworthy movement of the disturbance was in H (+100γ) and took place at 23<sup>d</sup> 19<sup>1/2</sup><sup>h</sup>. The period between 24<sup>d</sup> 0<sup>h</sup> and 28<sup>d</sup> 20<sup>h</sup> contained a few isolated bays and also a short spell of marked unsteadiness (25<sup>d</sup> 15<sup>h</sup> to 26<sup>d</sup> 10<sup>h</sup>). A further period of mild disturbance then set in, announced by a large wave in D (+20') at 28<sup>d</sup> 21<sup>h</sup>. The development was gradual, as was the decline. The principal movements occurred between 30<sup>d</sup> 6<sup>h</sup> and 31<sup>d</sup> 2<sup>h</sup>, the largest being a decrease in H (100γ) at 30<sup>d</sup> 7<sup>h</sup>. Quiet conditions were reached by 31<sup>d</sup> 21<sup>h</sup>.

The range in declination during the month was from 10° 17'·0 to 10° 50'·5 both on the 20th; in horizontal intensity from ·18443 on 20th to ·18612 on 21st; in vertical intensity, from ·43076 on 21st to ·43177 on 20th.

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

Declination, 12° 1'·7, 9° 50'·7 - both on March 24th.

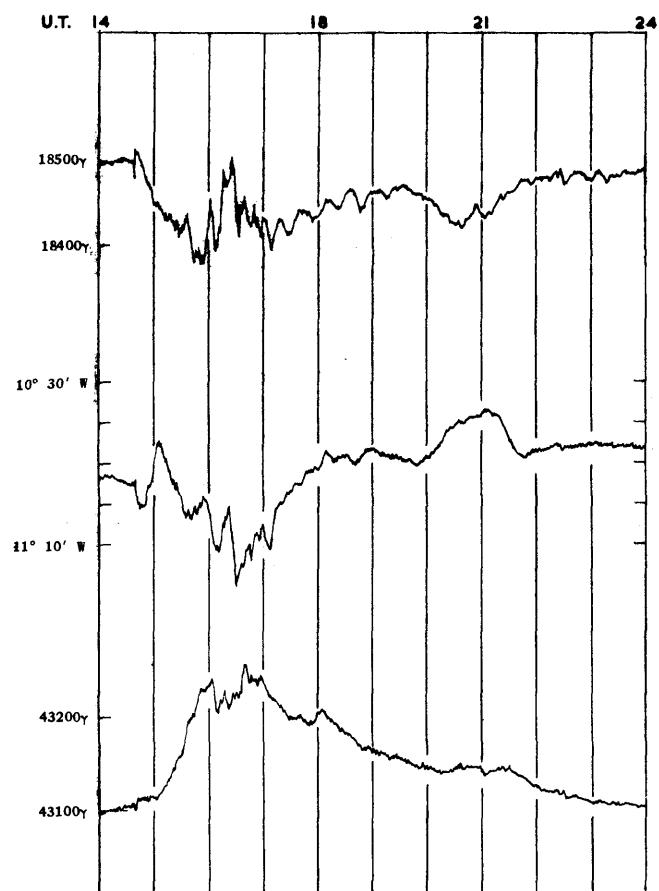
Horizontal Intensity, ·18860 on June 25th; ·17870 or less  
(the register is confused) on March 24th.

Vertical Intensity, ·43744, ·42695 - both on March 24th.

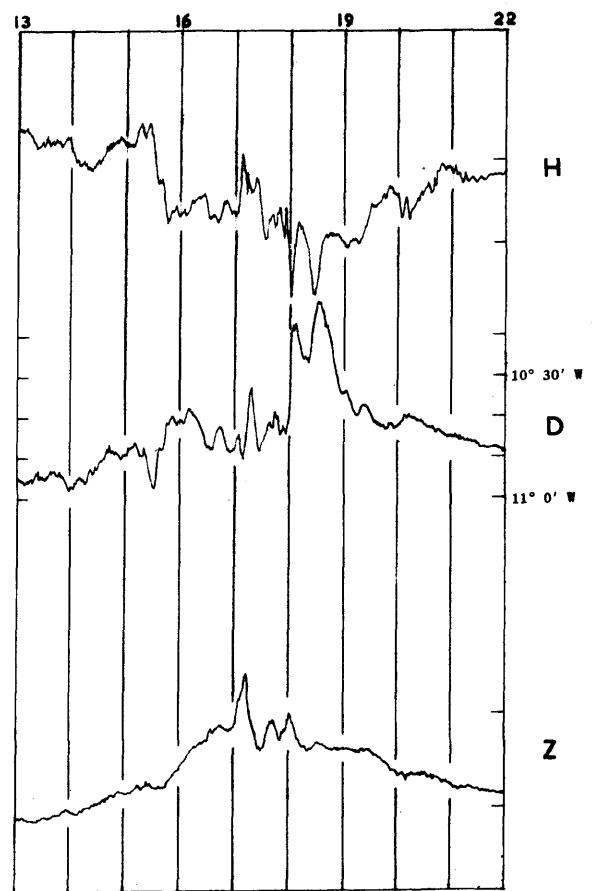


Plate I

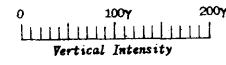
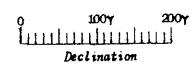
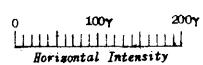
1940 JANUARY 3



1940 JANUARY 18



SCALES FOR THE MAGNETIC ELEMENTS



1940 MARCH 24 - 25

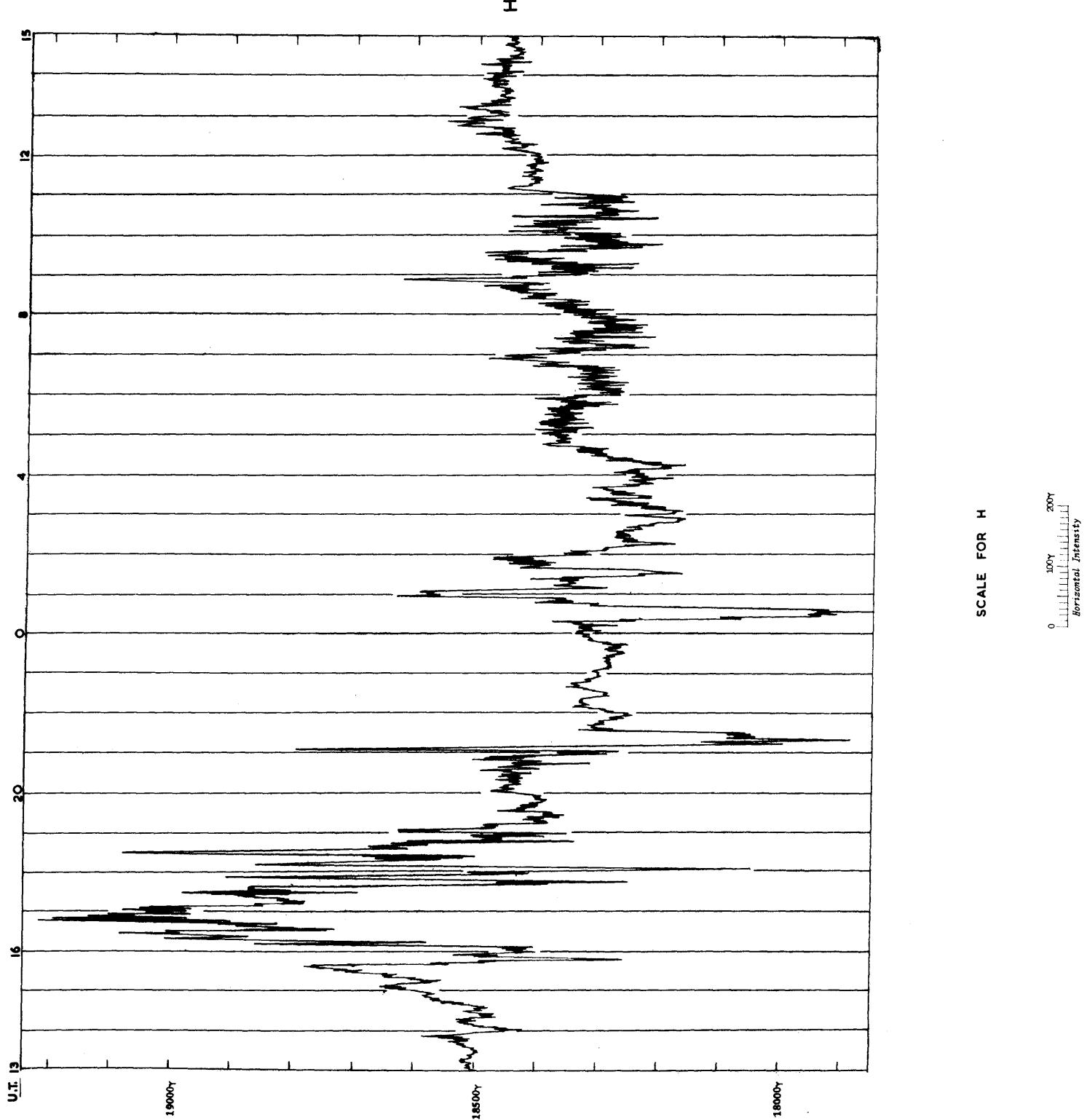
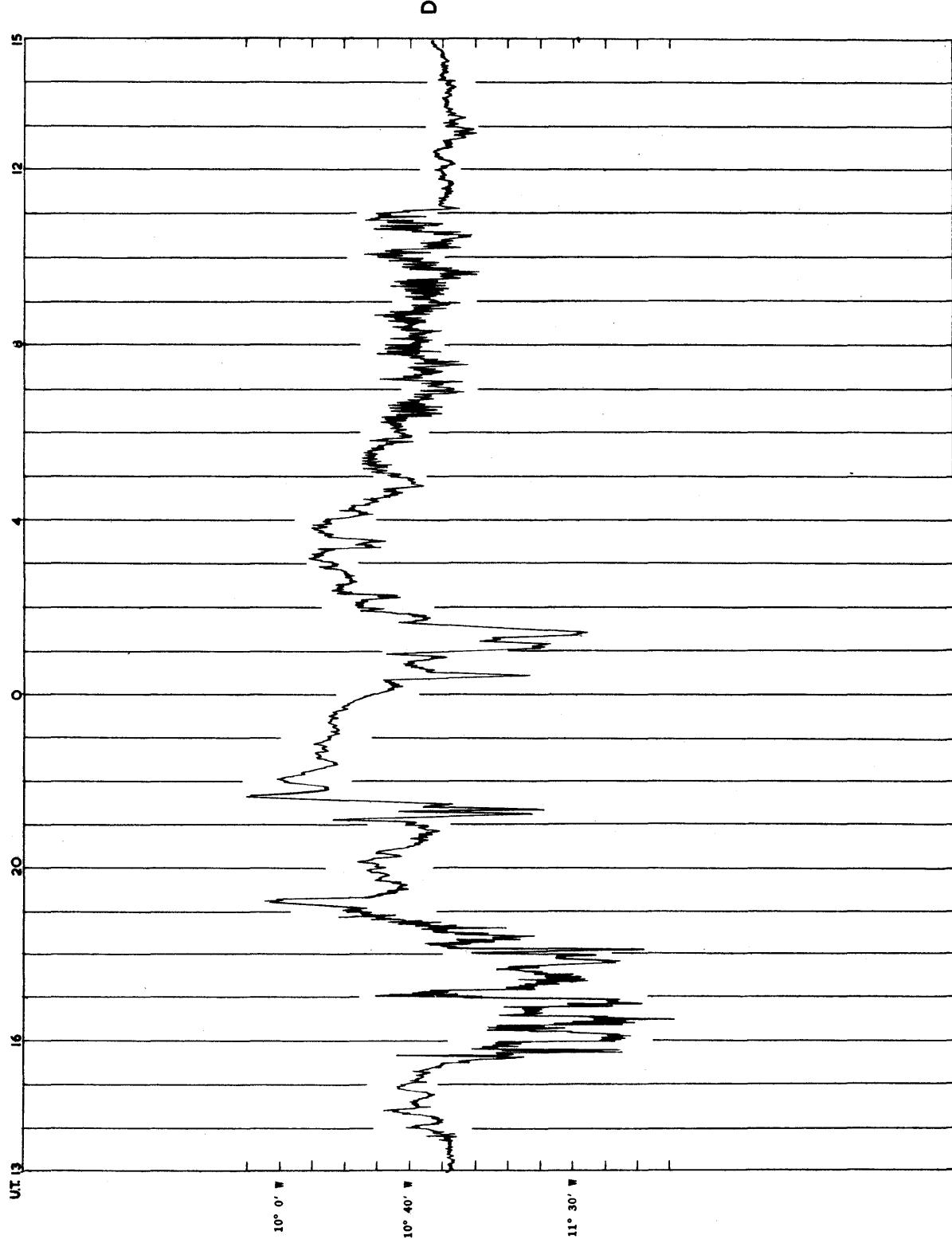


Plate II b

1940 MARCH 24 - 25



SCALE FOR D

0 100 200  
Decimation

1940 MARCH 24-25

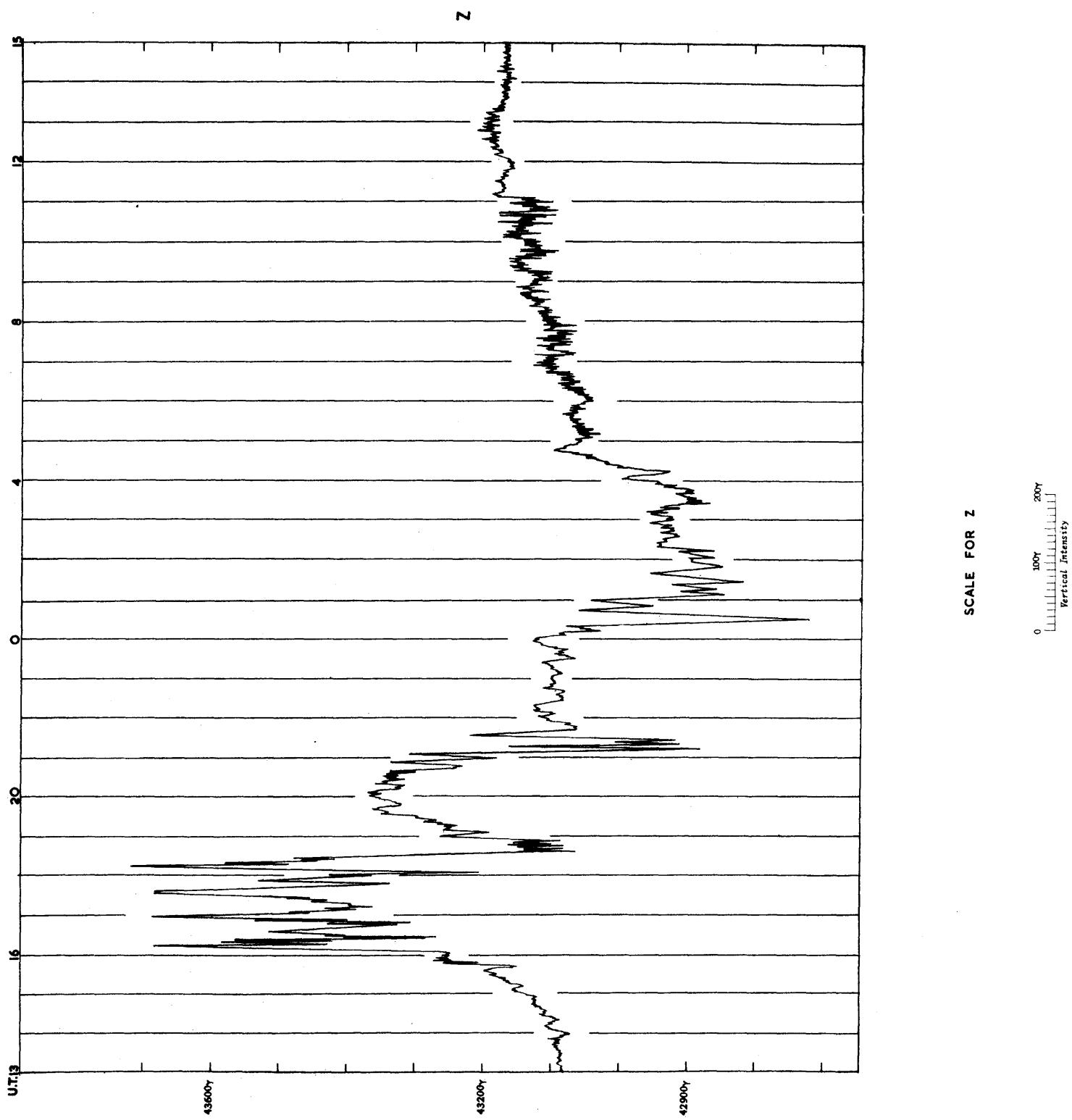
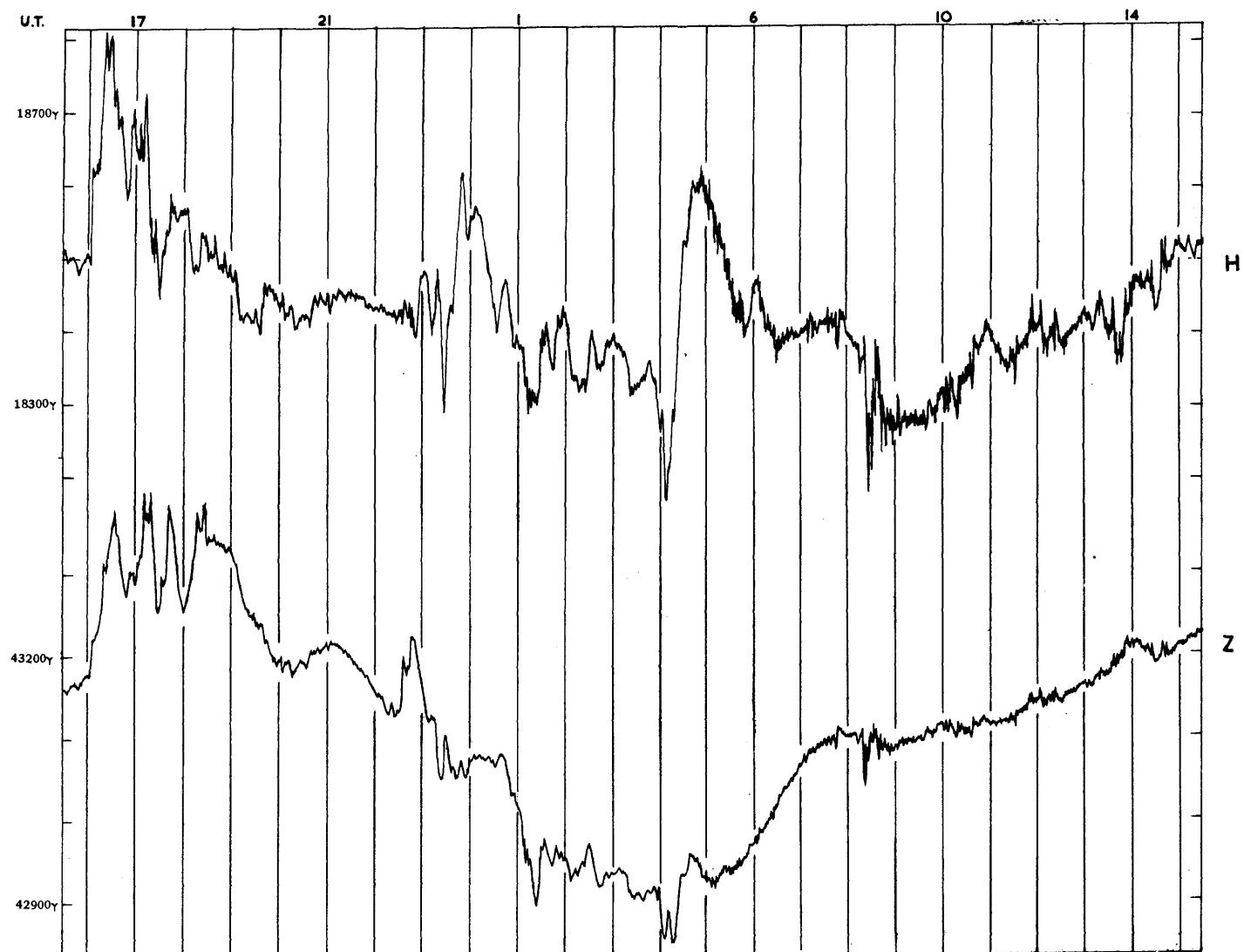
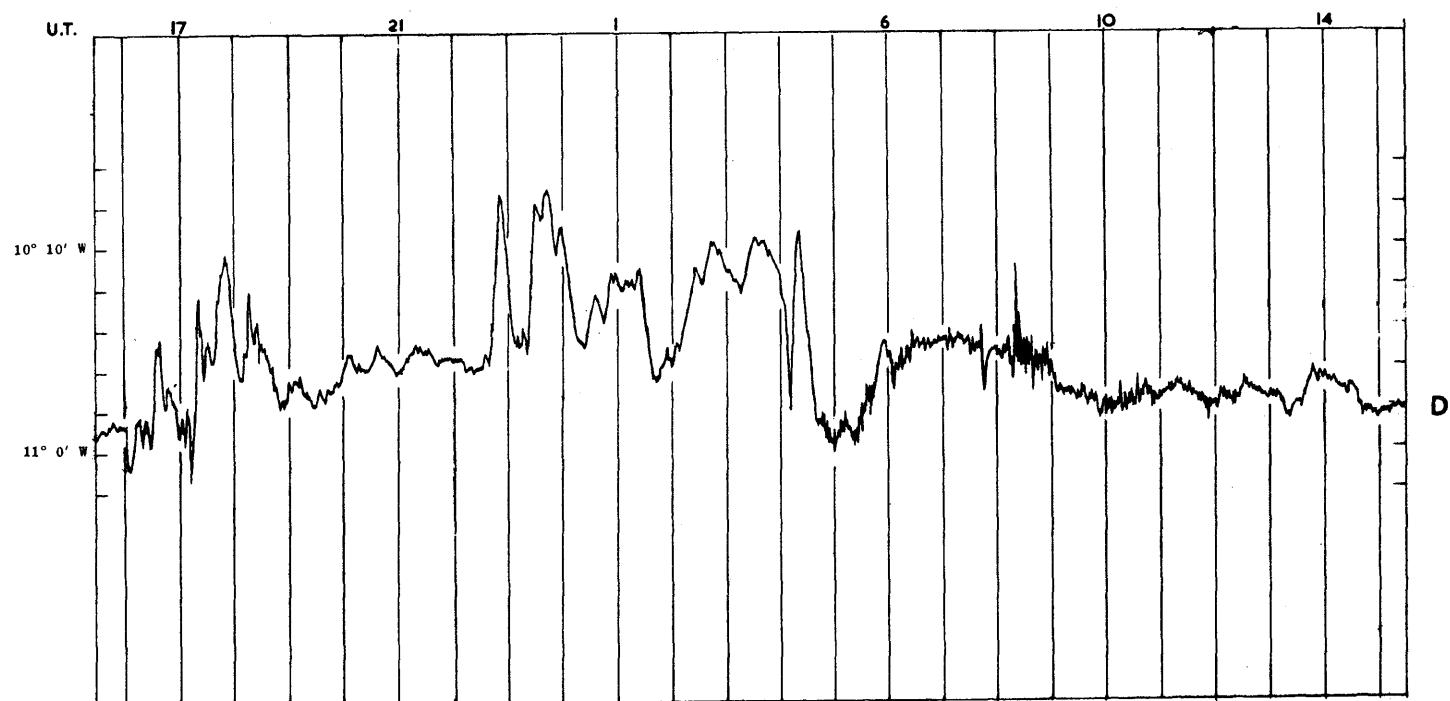


Plate III

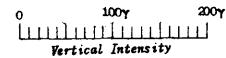
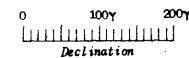
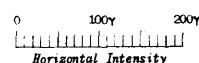
1940 MARCH 29-30



1940 MARCH 29-30



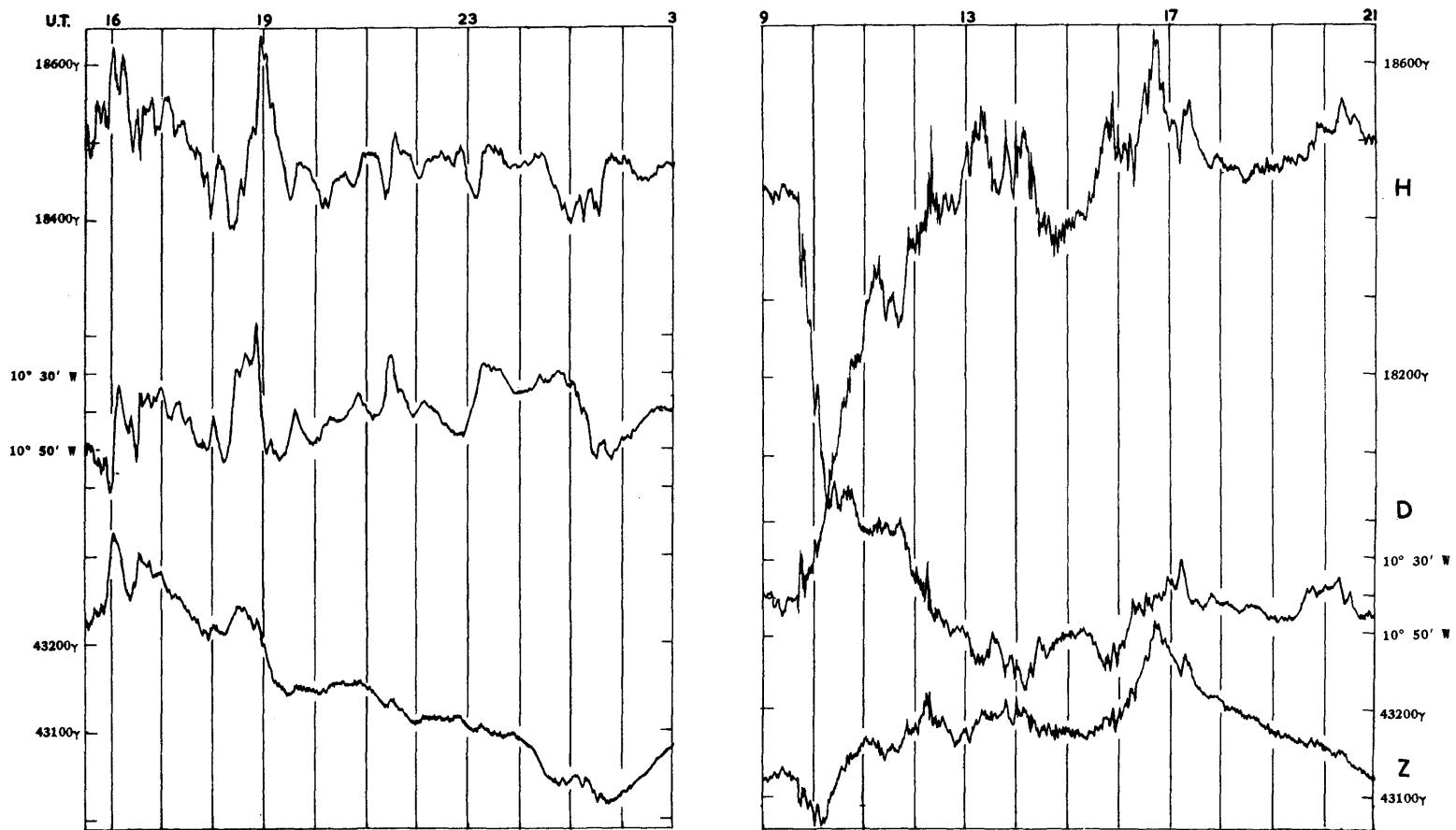
## SCALES FOR THE MAGNETIC ELEMENTS



1940 MARCH 30 - 31

1940 MARCH 31

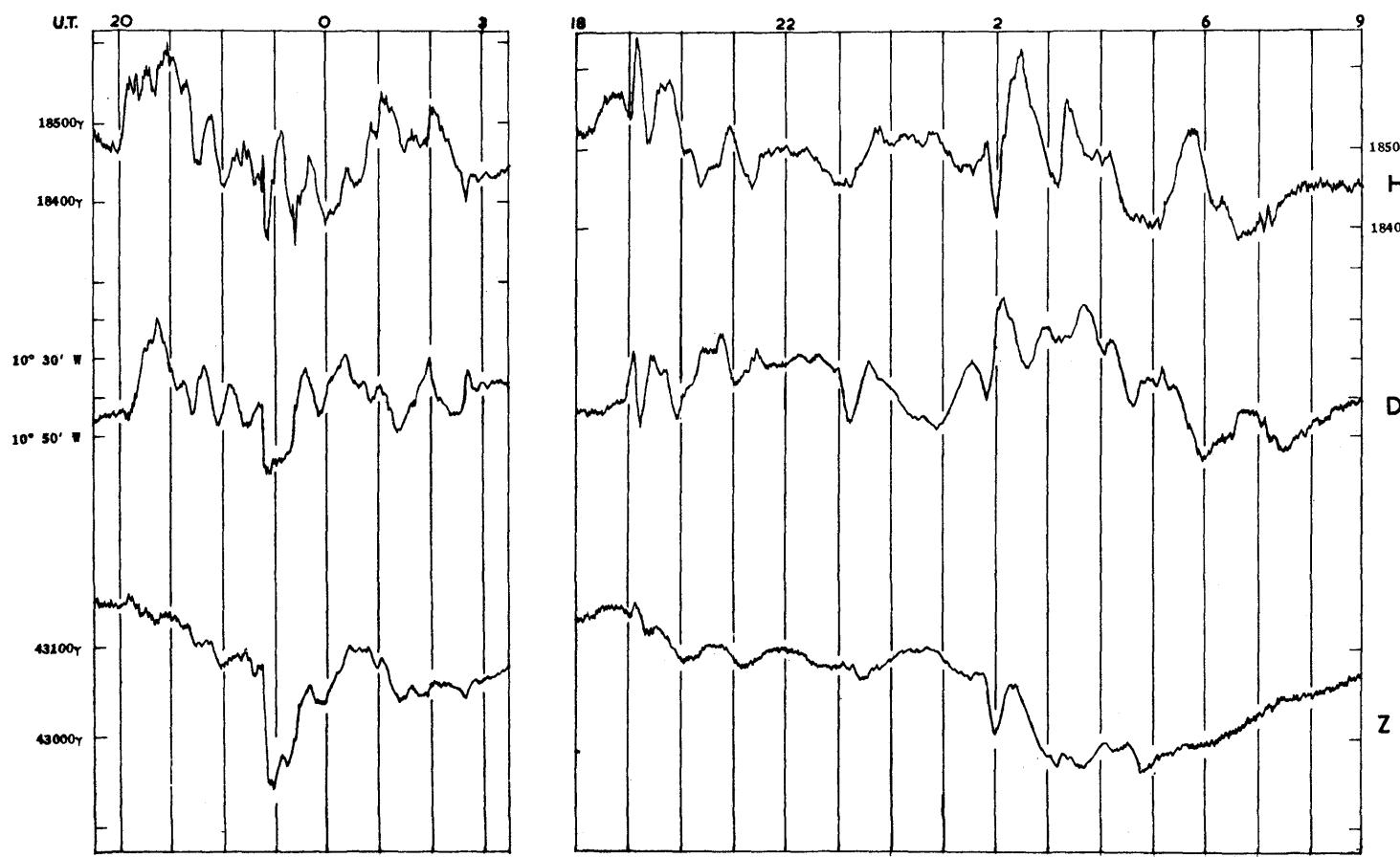
Plate IV



1940 MARCH 25 - 26

1940 APRIL 2 - 3

Plate V



SCALES FOR THE MAGNETIC ELEMENTS

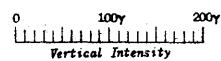
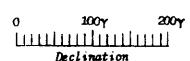
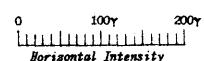


Plate VI

1940 APRIL 25

1940 APRIL 25-26

1940 MAY 23.

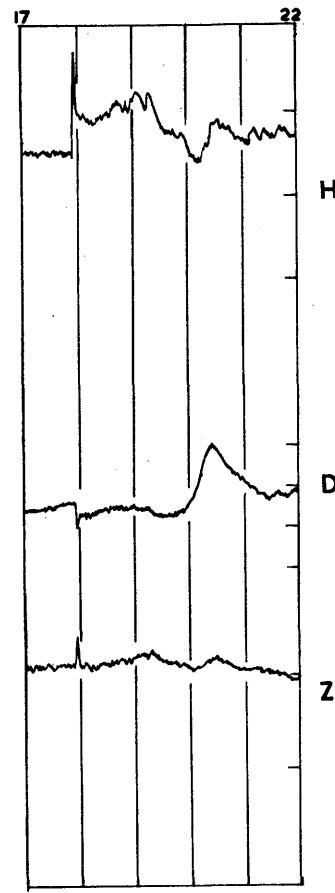
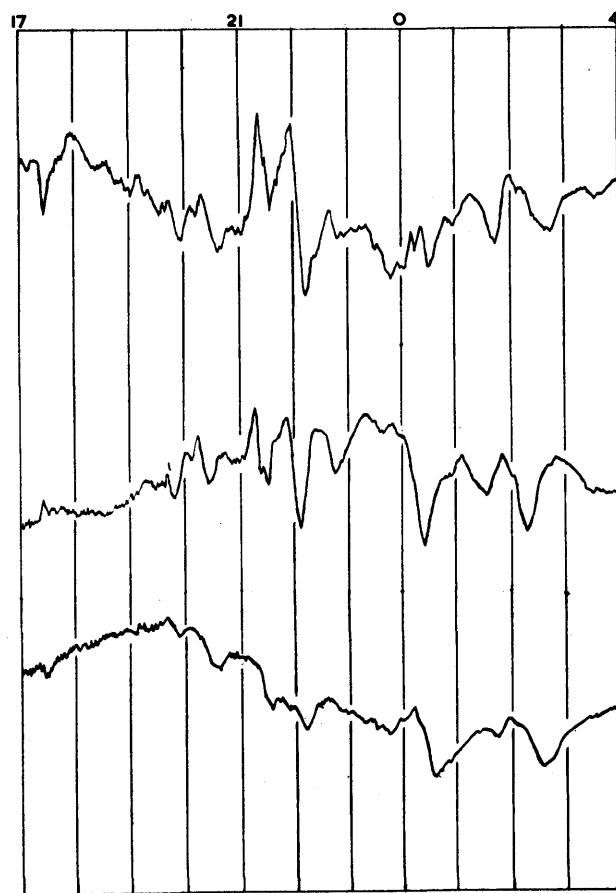
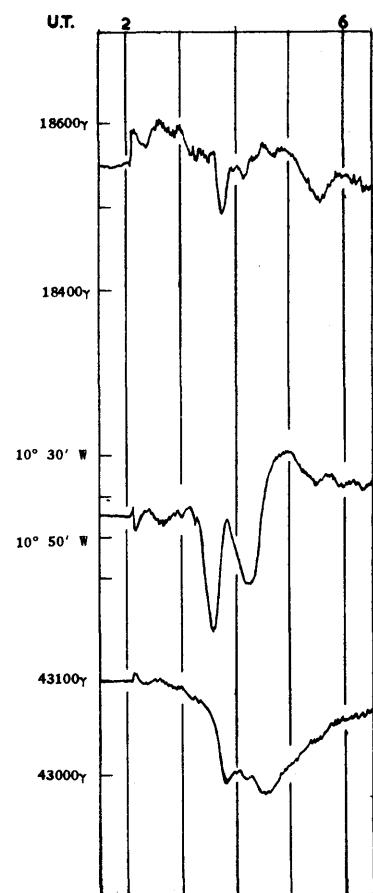
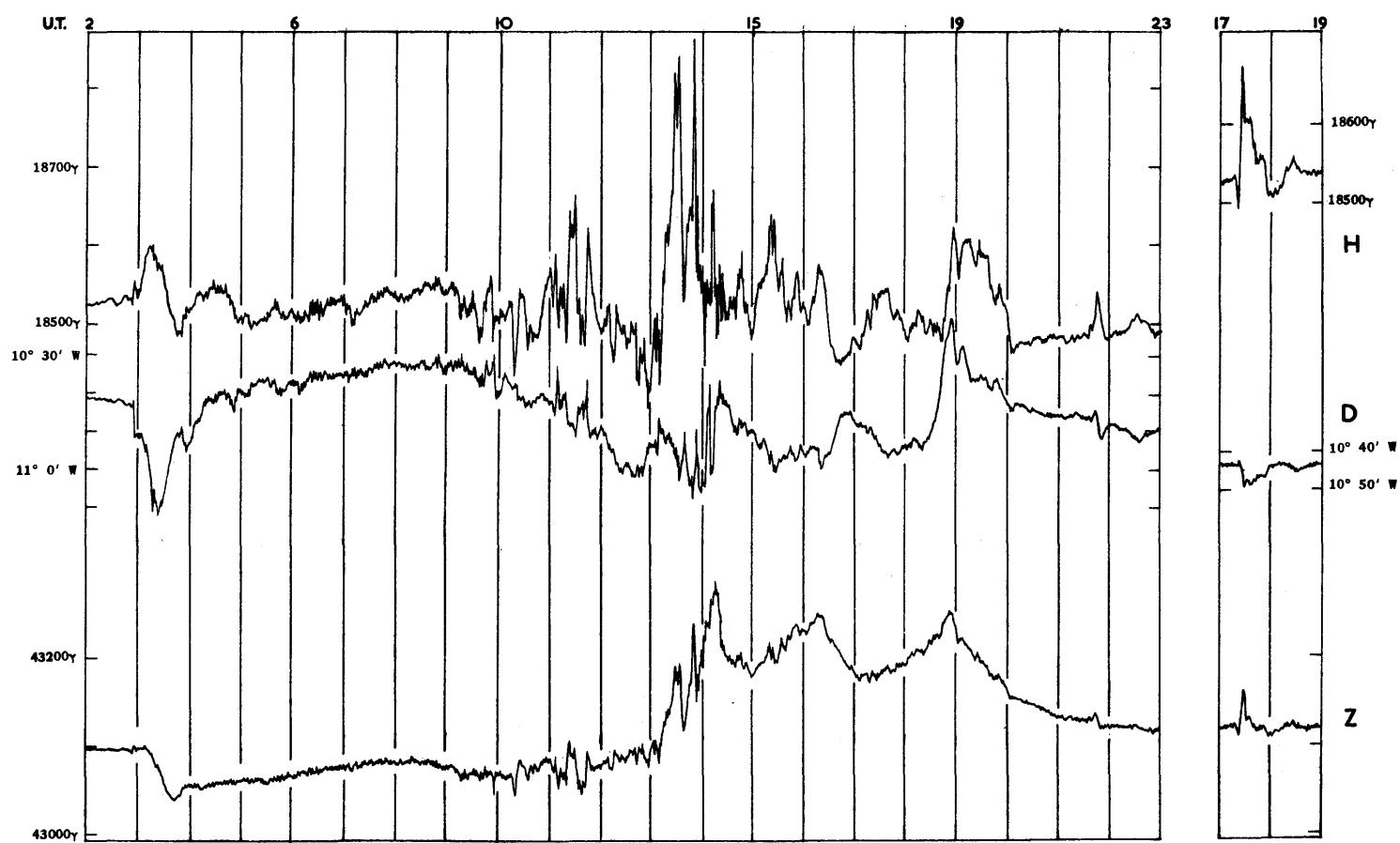


Plate VII

1940 JUNE 25

1940 JUNE 26



SCALE FOR THE MAGNETIC ELEMENTS

0 100γ 200γ  
Horizontal Intensity

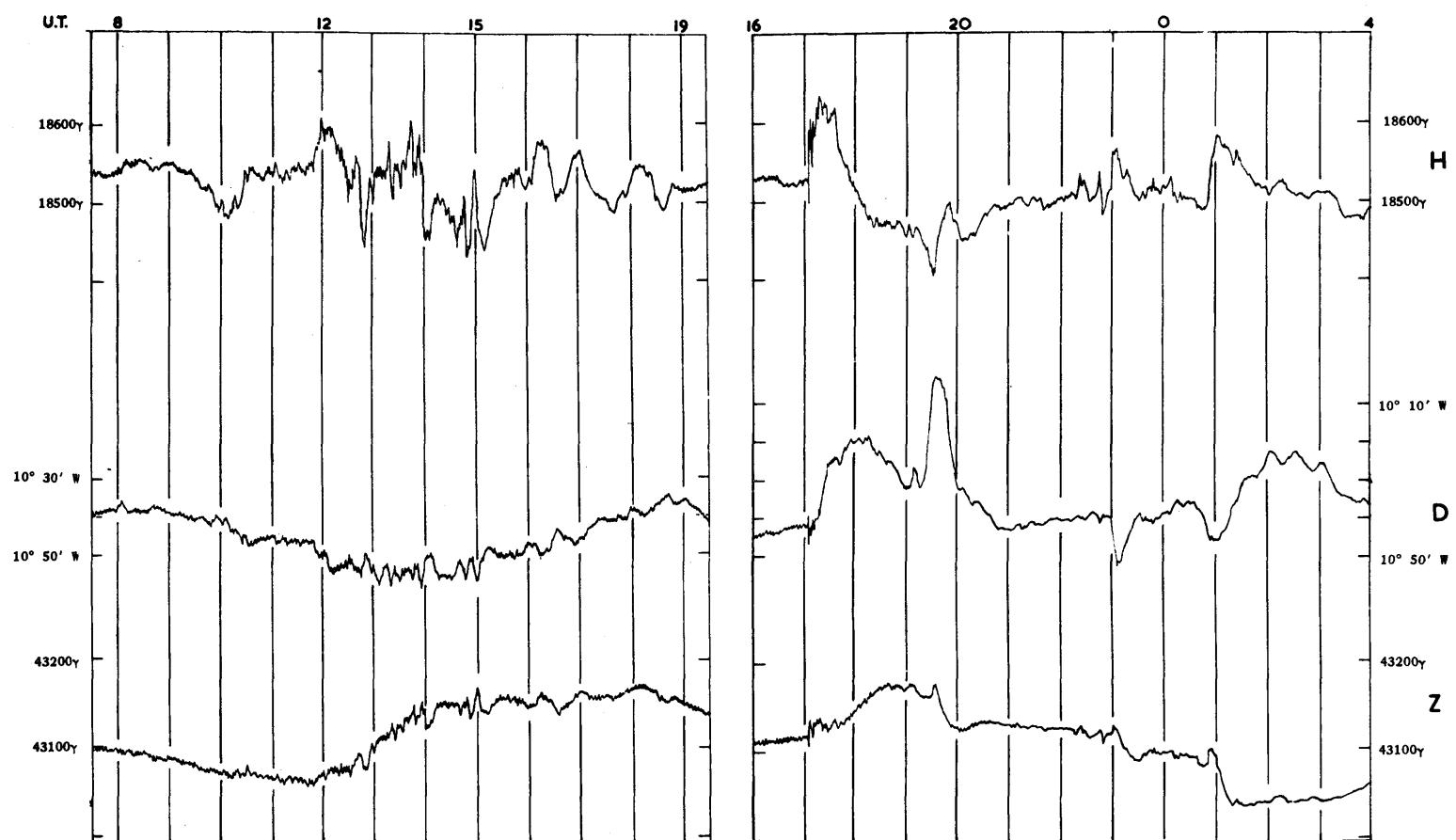
0 100γ 200γ  
Declination

0 100γ 200γ  
Vertical Intensity

1940 JULY 13

1940 SEPTEMBER 26-27

Plate VIII



1940 SEPTEMBER 27 - 28

1940 SEPTEMBER 28

Plate IX

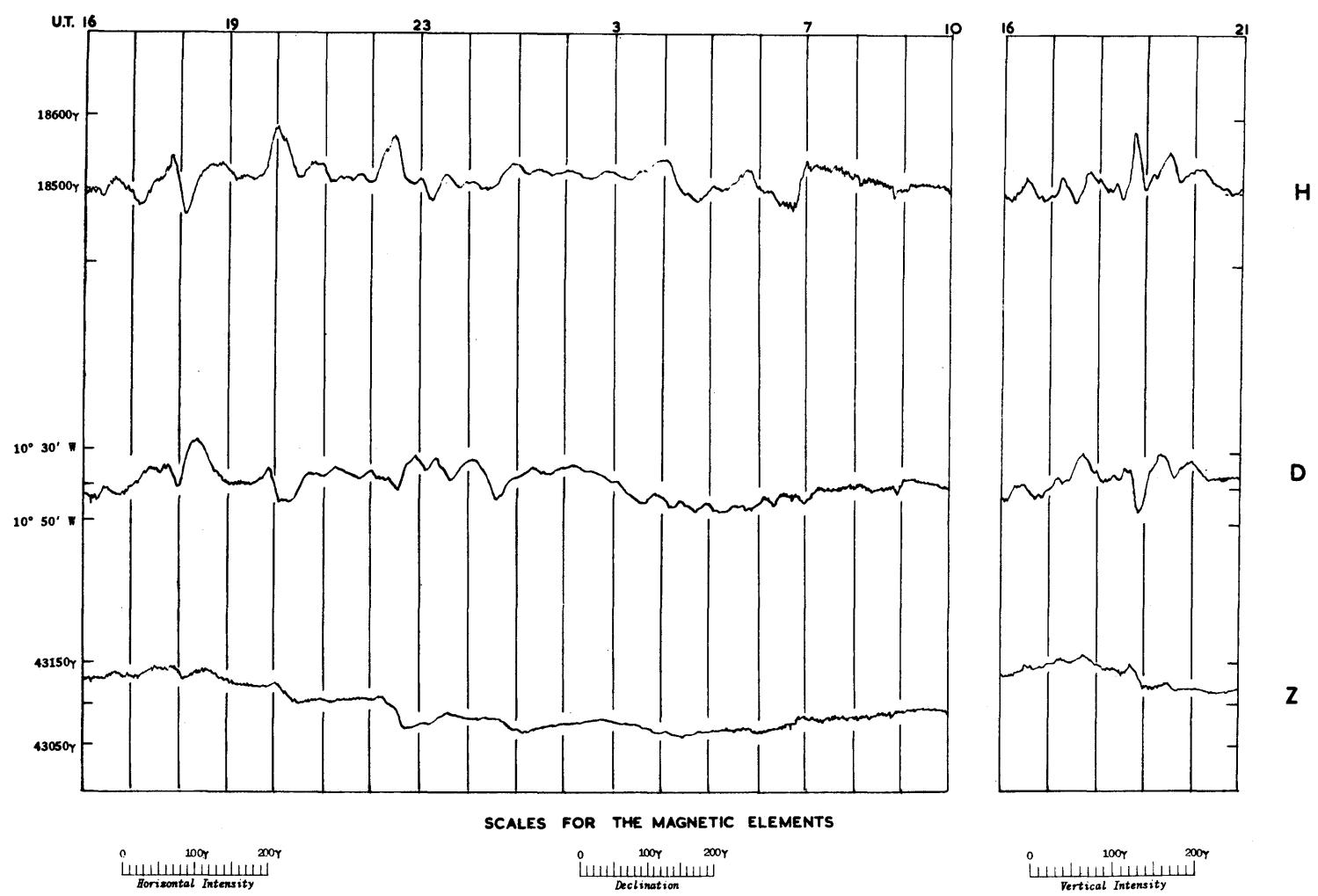


Plate X

1940 OCTOBER 7 - 8

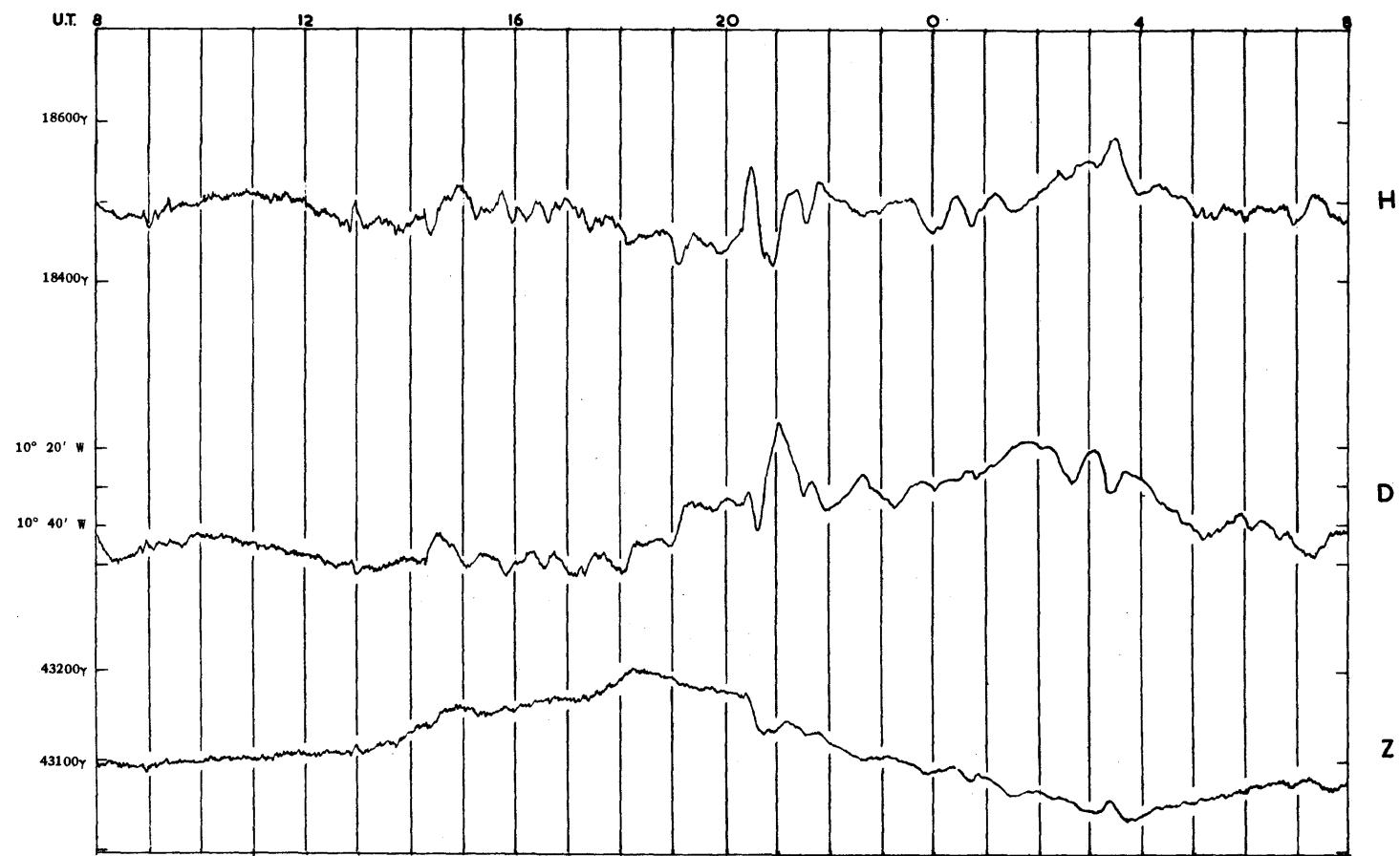
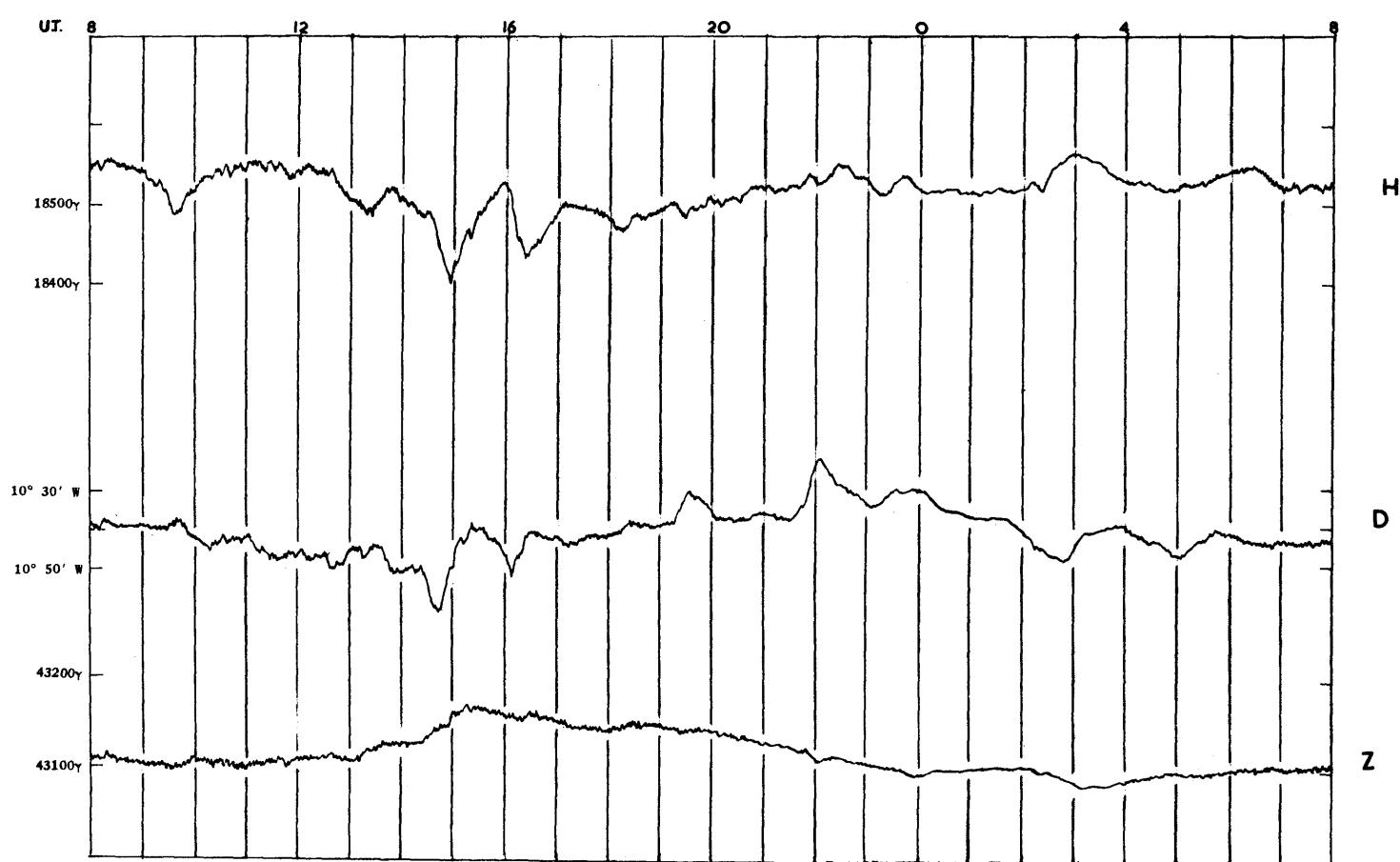


Plate XI

1940 NOVEMBER 25 - 26



SCALES FOR THE MAGNETIC ELEMENTS

0    100Y    200Y  
Horizontal Intensity

0    100Y    200Y  
Declination

0    100Y    200Y  
Vertical Intensity

**ROYAL OBSERVATORY, GREENWICH**

**K-indices for the years**

**1929 to 1939**

**determined at Abinger**

**APPENDIX TO GREENWICH MAGNETIC & METEOROLOGICAL RESULTS, 1940.**

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1929												
1	1102 1112	9	3212 2212	15	3233 3333	23	3232 2233	20	3122 3332	19	2223 3322	19
2	1111 1112	9	2022 2112	12	2222 2131	15	3112 2223	16	4333 2322	22	2332 2322	19
3	1011 2333	14	1232 2110	12	2122 2343	19	3232 1223	18	3333 3223	22	2222 3321	17
4	4332 2321	20	1022 2110	9	3222 2211	15	2234 5332	24	3323 1103	16	0111 2310	9
5	1313 2454	23	1213 3111	13	0323 4321	18	1112 3333	17	3122 3110	13	1122 1211	11
6	3222 2341	19	1122 2345	20	2212 2123	15	3121 1221	13	1213 3221	15	1112 1231	12
7	0001 1111	5	4223 3123	20	2121 2443	19	1112 2212	12	1222 2223	16	4322 2231	19
8	2211 3215	17	2122 1344	19	3443 3352	27	3223 3122	18	1012 3232	14	1222 3424	20
9	4423 3444	28	3233 3443	25	3332 2333	22	2122 1111	11	2223 3220	16	3232 4443	25
10	3222 3434	23	3233 3531	23	2312 2313	17	0023 3222	14	1121 2220	11	4344 4443	30
11	4442 2110	18	2223 3323	20	2333 5544	29	4221 3322	19	1112 3322	15	4333 4443	28
12	0121 1111	8	3222 2231	17	6665 6665	46	1122 2223	15	3433 2322	22	3311 3241	18
13	1122 2123	14	3222 1120	13	5433 3324	27	2222 2221	15	3434 5443	30	2113 3221	15
14	3223 4443	25	1121 1201	9	2212 3334	20	1122 1121	11	3223 4344	25	1023 1210	10
15	3222 2322	18	0011 2111	7	1123 4545	25	1112 2333	16	3334 4444	29	0122 2222	13
16	1111 1223	12	1111 3335	18	5534 3434	31	4542 4434	30	4423 3433	26	2231 2222	16
17	2011 1110	7	5554 4665	40	4432 3343	26	5333 3434	28	3332 3320	19	2122 2231	15
18	0112 2110	8	4534 2233	26	3222 2331	18	3232 3223	20	1121 2133	14	2222 2110	12
19	0111 1112	8	3433 4433	27	2211 2234	17	3312 2112	15	1222 3232	17	0012 2213	11
20	1112 2222	13	3212 2133	17	3322 3444	25	1112 1212	11	2212 3322	17	2222 2321	16
21	2112 3222	15	3332 2234	22	4543 4544	33	2432 2223	20	2122 1232	15	0222 3432	18
22	3312 3323	20	3323 3454	27	3343 4423	26	2312 1111	12	2222 2222	16	2453 4354	30
23	2111 1221	11	4332 2133	21	1222 3333	19	1111 1112	9	3344 3322	24	3333 4444	28
24	1111 2122	11	3322 2221	17	3332 3433	24	1111 2122	11	2212 2333	18	2333 4332	23
25	1111 1220	9	(1112)2234	16	1321 2313	16	2121 2224	16	4423 2332	23	3333 3120	18
26	0111 1232	11	3112 1244	18	2131 1124	15	2121 1222	13	4122 3332	20	2112 1210	10
27	2001 1210	7	5543 3587	40	3222 3233	20	3111 2213	14	3222 3231	18	1222 3322	17
28	0102 2312	11	6634 5441	33	3322 2334	22	3423 2333	23	3233 4431	23	2233 4331	21
29	1212 3143	17			3322 2312	18	2232 3343	22	2223 2311	16	1222 2212	14
30	2221 2122	14			3112 1211	12	2232 3532	22	1223 2433	20	3332 4335	26
31	2222 2111	13			2122 1013	12			1233 3232	19		

## MAGNETIC OBSERVATIONS, ABINGER 1940.

D 61

Date	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	4322 3232	21	4334 5455	33	3122 3323	19	1121 1122	11	3333 3244	25	2112 1121	11
2	2322 2222	17	3432 2234	23	4123 3221	18	1022 1123	12	4233 4254	27	1112 2221	12
3	2111 2333	16	2121 2322	15	1222 3212	15	3322 2222	18	4545 5666	41	1101 3366	21
4	2232 3221	17	2322 2223	18	1122 3212	14	3323 3334	24	4433 3554	31	5444 5453	34
5	1222 3633	22	5332 3323	24	0122 3111	10	3113 1122	14	3333 3553	28	4554 4333	31
6	3443 3323	25	1112 1111	9	1112 3224	16	1222 2111	12	3223 3444	25	4533 3453	30
7	2332 2332	20	1121 1221	11	5544 3443	32	1224 4456	28	2224 4535	27	4323 3312	21
8	2232 3321	18	1111 2110	8	2223 2213	17	5345 4556	37	2332 2113	17	3422 3424	24
9	2311 2222	15	1111 1111	8	3333 2324	23	3224 5244	26	2223 3321	18	2222 2234	19
10	2246 6756	38	1120 1212	10	4553 3553	33	3333 3443	26	1012 1111	8	2221 4323	19
11	4333 3333	25	2334 4453	28	4353 4343	29	3322 1232	18	0122 2200	9	4422 3444	27
12	3222 2222	17	3222 3222	18	2334 4444	28	4433 3233	25	1312 2114	15	4433 3132	23
13	2112 2221	13	2122 2211	13	4424 3433	27	3433 3433	26	3212 2123	16	2222 2210	13
14	1022 2443	18	1111 4655	24	4443 4554	33	2222 3223	18	3112 2223	16	1012 1241	12
15	5443 3545	33	5343 3434	29	4333 2342	24	1122 2203	13	4233 2444	26	2111 2113	12
16	4323 4652	29	4333 3432	25	3433 3433	26	1223 4566	29	3543 4554	33	2212 4463	24
17	2343 4232	23	3222 2323	19	2323 3112	17	5443 2355	31	2212 2111	12	2233 2355	25
18	1212 3322	16	4444 3333	28	2122 3133	17	4432 3435	28	1122 2312	14	3423 3224	23
19	2121 1212	12	4333 5431	26	1212 2212	13	4543 3443	30	1112 2212	12	2212 2211	13
20	2223 4323	21	3222 2221	16	2113 3203	15	1223 3442	21	1121 3442	18	2112 2110	10
21	3223 3332	21	3322 2213	18	4222 2445	25	4222 2233	20	2121 2241	15	1011 1012	7
22	3324 3232	22	2121 2210	11	5434 4443	31	1122 2234	17	1102 2332	14	2324 4454	28
23	2221 2321	15	2222 2212	15	2123 3323	19	3222 2324	20	3212 2121	14	4322 1343	22
24	2212 4353	22	1322 2222	16	2321 2223	17	4323 3244	25	1111 1121	9	2112 2224	16
25	3213 3314	20	1120 2111	9	3212 4324	21	3323 2133	20	0111 2311	10	2321 2233	18
26	3222 3312	18	1111 2333	15	3223 3333	22	2112 2211	12	1122 2233	16	2211 2232	15
27	2211 2110	10	2222 2221	15	3323 4453	27	2212 1231	14	3222 3344	23	3111 2221	13
28	1113 1211	11	2221 1101	10	2112 2211	12	0122 2213	13	3233 2242	21	1112 1323	14
29	1111 2312	12	1122 1321	13	1112 1211	10	5333 3222	23	3323 2333	22	2113 1222	14
30	2122 2233	17	2221 2211	13	2222 3222	17	2223 5354	26	1211 2333	16	3133 2211	16
31	3232 3215	21	2312 3334	21			4332 2244	24			3113 3432	20

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date 1930	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	4223 3242	22	4433 4433	28	4444 4444	32	4333 4334	27	3313 2221	17	5444 4454	34
2	2212 2233	17	4323 4343	26	4334 3555	32	3222 3333	21	2111 2222	13	5443 4554	34
3	2234 3444	26	4333 4443	28	4244 3323	25	3332 2212	18	2122 3312	16	4444 4444	32
4	3342 4364	29	2233 3133	20	3332 3231	20	0121 1322	12	3443 4334	28	3433 4454	30
5	4434 3553	31	2232 3221	17	0122 2110	9	2323 1221	16	5655 5455	40	3323 3333	23
6	3423 5555	32	1112 2231	13	1122 1110	9	2223 4455	27	4533 5535	33	3232 3334	23
7	3334 4554	31	1122 2231	14	0122 1110	8	4433 3456	32	5444 3455	34	4553 4445	34
8	4333 3323	24	1113 2322	15	1122 2211	12	6446 5345	37	4333 3344	27	5433 4343	29
9	3221 2122	15	2112 2212	13	1212 1211	11	4334 4544	31	3343 4445	30	3333 3433	25
10	2111 1331	13	1112 2212	12	0111 1122	9	3434 4445	31	4333 3333	25	4333 2331	22
11	1111 1111	8	3212 1212	14	1113 3354	21	5435 4444	33	3223 2224	20	2323 2223	19
12	2111 1211	10	3333 4436	29	4555 6654	40	5434 3445	32	5433 3344	29	3434 5645	34
13	2422 1221	16	5344 5454	34	3433 4555	32	5333 3434	28	3434 4443	29	4353 4533	30
14	2122 2112	13	5333 5554	33	4353 4454	32	4422 2343	24	3332 3334	24	4333 2111	18
15	1112 1334	16	4333 4454	30	5442 4433	29	3443 4443	29	2233 3434	24	0223 2332	17
16	4212 2231	17	4433 4354	30	4334 3354	29	3423 4225	25	4433 4665	35	1365 6444	33
17	1102 3343	17	3333 4443	27	3333 3543	27	4433 3223	24	4455 5555	38	5434 4343	30
18	2312 2243	19	2233 2254	23	3322 3355	26	2213 3444	23	4433 4543	30	4333 4544	30
19	4333 3333	25	4423 3442	26	5344 4234	29	2333 4353	26	5334 3443	29	3334 4423	26
20	4323 3354	27	3213 2344	22	3222 2335	22	3555 4545	36	3443 3333	26	3333 4342	25
21	4222 3324	22	2222 2224	18	3322 3434	24	4434 5435	32	5433 3443	29	3323 4422	23
22	3323 3343	24	2231 2123	16	4343 3433	27	5434 4555	35	4455 3232	28	3333 2221	19
23	3222 3223	19	3233 2332	21	2122 3333	19	4443 4455	33	4333 3532	26	1212 1211	11
24	3211 1332	16	3323 2242	21	4454 4341	29	3334 4533	28	2232 2333	20	1332 3211	16
25	2222 2211	14	2434 4455	31	2331 4334	23	3333 5533	28	3333 4533	27	2122 2221	14
26	2112 1111	10	4233 2422	22	4333 3432	25	4342 4342	26	3433 3222	22	2323 3422	21
27	1111 1111	8	3433 3333	25	2354 3345	29	2234 3333	23	2233 3221	18	4444 4435	32
28	1111 2232	13	2333 4444	27	4344 3345	30	2222 2432	19	2233 3321	19	5343 4555	34
29	2233 3122	18			4334 3434	28	2122 4435	23	1333 2432	21	3423 4454	29
30	2233 3324	22			3432 3233	23	4233 3553	28	3331 3555	28	3433 3443	27
31	3233 2242	21			3122 3233	19			6543 5665	40		

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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## THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939

Date 1930	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3323 3333	23	3332 3323	22	3544 5434	32	2233 3544	26	3223 3321	19	3212 2211	14
2	2222 4444	24	2322 3322	19	5334 2332	25	3233 3335	25	2012 4414	18	1111 1122	10
3	3332 4443	26	2222 3233	19	3333 5666	35	3425 4554	32	4122 1121	14	3233 5765	34
4	3243 3444	27	2322 2123	17	4444 2222	24	4333 4343	27	1334 3114	20	4543 3322	26
5	3333 4453	28	2212 3444	22	3333 4454	29	3333 4443	27	3122 2343	20	4111 2221	14
6	3422 3322	21	5554 6565	41	4335 4453	29	4334 3353	28	2223 2201	14	1112 1132	12
7	2332 3231	19	5455 4455	37	3233 3333	23	3322 3344	24	1113 2332	16	4212 2312	17
8	2121 2323	16	4434 5564	35	3322 2442	22	3343 3442	26	2223 2353	22	1001 2110	6
9	2211 5455	25	4453 4444	32	1233 4444	25	4221 2324	20	4313 2333	22	0111 2321	11
10	6543 3543	33	3334 4524	28	4332 2232	21	1121 2332	15	1132 1113	13	1111 1212	10
11	5533 4344	31	5334 4452	30	1132 3333	19	2222 2131	15	3001 1012	8	2112 1111	10
12	3454 4455	34	3444 4465	34	2221 2225	18	0111 2132	11	2212 2110	11	0101 2243	13
13	3543 5643	33	5483 4342	28	3321 2123	17	1111 1211	9	0002 1132	9	4323 3434	26
14	4332 4331	23	3233 3364	27	2321 2222	16	3434 4355	31	3332 2465	28	2222 2323	18
15	3332 3422	22	4543 ***0	-	2332 1221	16	4223 1101	14	4334 3213	23	2111 2132	13
16	2244 4454	29	2333 3443	25	0121 2311	11	2222 1122	14	2122 2223	16	1111 1110	7
17	4343 4432	27	3112 2333	18	0122 3331	15	2344 4656	34	3232 1223	18	1111 1111	8
18	2343 3332	23	3113 2334	20	1126 5665	32	3333 3244	25	2212 1343	18	1112 1111	9
19	2333 3242	22	4244 5332	27	5343 4444	31	3333 2143	22	1212 1211	11	1112 3333	17
20	1322 3222	17	3322 2343	22	2322 3132	18	4355 3443	31	1112 1111	9	1211 2463	20
21	2232 2112	15	3324 4444	28	0144 4433	23	3233 2242	21	1112 1112	10	3334 4454	31
22	1211 3232	15	6443 3244	30	4222 3201	16	1112 1432	15	1002 1111	7	3422 2443	24
23	1023 3232	16	4342 3544	29	1234 2233	20	1212 2222	14	1111 1253	15	2222 2434	21
24	3132 2336	23	4323 3434	26	4344 3333	27	1112 2221	12	3434 4556	34	3332 3341	22
25	5444 4544	34	3223 3332	21	3122 2234	19	2212 3444	22	5544 4565	38	2312 3233	19
26	4443 4352	29	2222 3334	21	2211 2221	13	5544 5555	38	4333 3442	26	1122 2433	18
27	3222 4333	22	3332 4332	23	2212 2212	14	5435 5555	37	4223 2442	23	1212 3223	16
28	3322 3343	23	2212 3333	19	2334 3355	28	4334 4553	31	3222 2133	18	1212 1111	10
29	3335 4444	30	4312 2343	22	4454 5465	37	4334 3554	31	3232 3343	23	1111 2234	15
30	2343 2433	24	3421 2234	21	5664 3331	31	4433 4555	33	1222 3322	17	2012 2121	11
31	3333 2332	22	4431 2343	24			1234 4454	27			1112 1111	9

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date 1931	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	2222 2224	18	2221 1123	14	2212 2111	12	0011 2342	13	2122 2211	13	1322 2435	22
2	3211 1112	12	4322 1113	17	0112 3333	16	3112 2222	15	2232 3220	16	2444 4534	30
3	1111 1110	7	3321 1221	15	2432 2333	22	2111 3333	17	1121 1122	11	3322 3222	19
4	1111 2101	8	1232 1123	15	2111 1213	12	1112 2243	16	2221 2121	13	2212 2211	13
5	1011 1111	7	3311 1123	15	2112 2231	14	3222 2111	14	1212 2332	16	1211 2122	12
6	2111 1110	8	1121 1122	11	1121 2221	12	0022 2210	9	2243 3331	21	2223 2332	19
7	0111 1101	6	1122 2113	13	1122 3232	16	0111 1112	8	4544 3432	29	2112 3322	16
8	1111 1101	7	2222 1112	13	3221 2233	18	3112 2222	15	3222 2120	14	1211 2344	18
9	4332 3224	23	2121 2212	13	4222 3232	20	2222 3323	19	0221 1110	8	4432 3322	23
10	4332 2242	22	2122 2110	11	1111 2433	16	2333 3333	23	2221 1101	10	1332 3422	20
11	1122 1323	15	1111 2122	11	2122 1121	12	2122 3331	17	0332 3344	22	4332 3323	23
12	3111 1112	11	1001 1111	6	3112 2344	20	1010 0111	5	3322 2223	19	3123 3332	20
13	1011 2102	8	2333 4435	27	5233 3354	28	0111 1211	8	1331 2354	22	1211 3222	14
14	1011 2112	9	4424 4345	30	3333 2233	22	0111 1212	9	3332 2445	26	2212 2222	15
15	2223 2123	17	3233 4443	26	3222 2212	16	1111 2321	12	4443 3342	27	2211 2111	11
16	3333 4545	30	4222 2110	14	2112 2210	11	2111 1122	11	2331 3332	20	1111 2112	10
17	4334 4453	30	1112 1323	14	1121 2211	11	2111 2222	13	2221 2221	14	2011 2221	11
18	3244 3443	27	2112 2221	13	1011 1110	6	2323 3232	20	3332 2222	19	3111 2221	13
19	2123 2134	18	1001 1322	10	0112 1221	10	2112 4344	21	2121 1210	10	1212 3222	15
20	4111 3333	19	2101 2111	9	1011 2324	14	4434 2211	21	1122 3233	17	2222 3221	16
21	2211 2222	14	0112 1111	8	2323 3244	23	1121 1121	10	2222 2120	13	1211 3442	18
22	2222 1111	12	1012 2131	11	4321 1123	17	2222 2323	18	1221 2210	11	1122 3332	17
23	3112 2111	12	2111 2123	13	3321 1223	17	3111 2202	12	1221 2121	12	2223 2222	17
24	1211 1110	8	2444 4453	30	3221 **11	-	2121 1212	12	1222 2211	13	2222 2233	18
25	0122 1244	16	2111 2335	18	2132 1234	18	1112 2323	15	1331 2333	19	1222 1211	12
26	4222 1121	15	5332 3414	25	5323 3212	21	1332 1222	16	3443 3432	26	1112 4534	21
27	0011 2233	12	3233 3342	23	3223 2223	19	2011 1210	8	2322 2120	14	3433 4533	28
28	3321 3224	20	2211 2212	13	3321 1232	17	0111 2222	11	0221 1111	9	4433 3444	29
29	2112 3322	16			2222 2223	17	1111 1111	8	1222 3421	17	2213 2221	15
30	1112 1110	8			1111 1210	8	2221 1111	11	1221 2211	12	0213 2221	13
31	1111 1143	13			0122 3210	11			1222 2210	12		

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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Date	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1931												
1	0112 2112	10	1212 3333	18	4332 2233	22	4343 3444	29	3132 2324	20	1221 4343	20
2	2322 3334	22	1111 1112	9	1111 2111	9	4224 4655	32	2222 2322	17	3234 4455	30
3	2233 3332	21	2332 2212	17	1223 2333	19	4322 2232	20	3233 2435	25	4443 3444	30
4	1121 2343	17	2121 2231	14	5434 5533	32	4221 3455	26	4433 3221	23	3244 4544	30
5	1222 2222	15	1211 3322	15	3333 2233	22	5444 4554	35	1342 3454	26	4332 4444	28
6	1112 2321	13	2223 3221	17	3343 3444	28	4332 2333	23	3434 4534	30	3323 3333	23
7	1211 2323	15	1232 4333	21	4442 3242	25	3222 2300	14	3223 4234	23	2222 2233	18
8	3221 2211	14	4333 4444	29	1223 2335	21	1222 1223	15	3444 4455	33	3111 1123	13
9	1111 1222	11	5333 4443	29	3342 3343	25	2312 3210	14	3433 3443	27	2012 3232	15
10	1111 1222	11	2221 3323	18	3222 2431	19	0113 2323	15	4333 2443	26	3343 2113	20
11	1222 3333	19	3432 3322	22	2222 2222	16	2123 2113	15	1113 3313	16	2213 3354	23
12	2222 2231	16	2111 2221	12	3123 4232	20	3112 3446	24	1112 2211	11	4223 4444	27
13	1322 3231	17	2211 2332	16	1112 2331	14	5443 4423	29	1113 2244	18	3222 4334	23
14	1233 3431	20	1322 2132	16	1222 3434	21	3222 2432	20	3223 4452	25	3112 2344	20
15	2243 3322	21	0111 2233	13	4324 4444	29	2332 3433	23	1212 3445	22	2222 2445	23
16	4322 3112	18	2223 4333	22	5333 3424	27	3221 2111	13	4322 3555	29	3223 3343	23
17	3111 1212	12	1111 1212	10	5433 3332	26	3323 2154	23	3222 3444	24	4322 3233	22
18	1222 2221	14	2121 1222	13	1113 3123	15	3323 4433	25	4333 4344	28	1121 1221	11
19	1211 2301	11	4223 3334	24	2011 2132	12	2334 2344	25	3323 3353	25	1112 1011	8
20	0122 1221	11	3443 4443	29	3111 2444	20	3122 2143	18	2233 2423	21	1101 1011	6
21	2221 2322	16	3344 3434	28	5333 3234	26	3222 3342	21	1221 3320	14	1102 1112	9
22	1111 2111	9	2202 3312	15	3321 3334	22	4323 2343	24	1111 1111	8	1321 2112	13
23	2334 5543	29	2223 3332	20	2222 4424	22	1122 2335	19	1012 1123	11	2011 2343	16
24	3334 2312	21	3222 2324	20	4332 4333	25	3333 2212	19	2121 1123	13	2111 1111	9
25	2232 4434	24	4443 4443	30	2222 2233	18	2101 2213	12	1222 2223	16	2322 1353	21
26	4333 3322	23	1223 3334	21	3322 2232	19	2111 1142	13	3313 5545	29	1111 1112	9
27	2111 2322	14	3322 4424	24	3321 2231	17	3122 4452	23	4434 2344	28	0111 1111	7
28	2323 4344	25	4133 3222	20	1101 1121	8	3424 3454	29	2122 2222	15	2112 3445	22
29	2331 3323	20	2222 2223	17	1111 2231	12	1224 5765	32	1211 2214	14	3334 4433	27
30	3232 2313	19	1111 2322	13	2113 4434	22	3545 4653	35	3222 1111	13	6433 3334	29
31	2211 2111	11	2222 1222	15			2343 3333	24			3233 2343	23

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date 1932	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3223 4354	26	3102 2123	14	1111 1111	8	3322 3435	25	3223 2312	18	2111 2212	12
2	3333 4545	30	2111 1122	11	2222 3345	23	5343 3454	31	5222 3234	23	1212 2222	14
3	4331 3242	22	2233 4555	29	4333 4344	28	3322 2355	25	4333 3333	25	2111 2211	11
4	2111 2132	13	5234 4553	31	4434 4354	31	3322 4334	24	3222 2544	24	0112 2221	11
5	1011 1223	11	3333 2444	26	4333 3455	30	3433 3325	26	4222 3444	25	1222 3221	15
6	2112 2223	15	3233 3434	25	4333 3344	27	3333 2334	24	3333 4234	25	0122 2322	14
7	1111 1244	15	3222 3343	22	2222 2344	21	4444 4245	31	2322 2122	16	1222 3423	19
8	1333 3334	28	3223 3442	23	6423 1444	28	5333 3333	26	2112 2232	15	4233 5444	29
9	3323 3345	26	2123 3334	21	3322 3455	27	4323 3343	25	1111 2121	10	4332 4333	25
10	3333 3443	26	3233 3544	27	4423 3465	31	3222 3243	21	3121 3133	17	3433 4333	26
11	3332 3454	27	3223 3544	26	6433 2344	29	2121 2133	15	4323 4442	26	3323 3422	22
12	4333 3434	27	3434 2435	28	2223 3232	19	3211 2211	13	3222 3322	19	3122 3331	18
13	3222 2213	17	3223 3333	22	2312 2233	18	1111 2556	22	2322 3342	21	2223 3221	17
14	4212 2214	18	3313 2233	20	3222 3322	19	3433 3441	25	3322 3433	23	1222 2322	16
15	2143 1241	18	4211 2132	16	2211 2211	12	4333 3243	25	4233 3442	25	0111 1111	7
16	1212 2443	19	2111 1112	10	1111 1331	12	2324 3323	22	2442 4422	24	1111 2312	12
17	3111 1311	12	1102 1112	9	1111 1233	13	4233 2323	22	3223 2222	18	1222 3211	14
18	1112 1120	9	1111 1133	12	3323 3362	25	4333 3544	29	1211 2221	12	1122 2202	12
19	1111 1122	10	3323 2232	20	3322 1232	18	3111 2222	14	2121 1211	11	1212 2233	16
20	2111 2201	10	3443 3342	26	1121 3333	17	1112 2111	10	1112 2211	11	3223 3541	23
21	1111 1111	8	1123 3221	15	4432 3355	29	0111 1120	7	2233 4321	20	2111 2323	15
22	1111 1111	8	2233 4443	25	3433 4444	29	1123 4424	21	3122 4321	18	1422 3441	21
23	2111 1132	12	4221 1264	22	5322 3323	23	3334 4445	30	0012 4345	19	3232 2222	18
24	1122 ****	-	3334 3333	25	3222 3214	19	3334 3444	28	1322 3223	18	2212 2231	15
25	**** 3453	-	3422 2343	23	3121 1112	12	4233 3444	27	4432 3433	26	0012 3421	13
26	3233 2345	25	3212 2222	16	1121 1221	11	5333 3444	29	3322 2333	21	2223 3221	17
27	5222 3544	27	1111 1220	9	1112 1232	13	3333 2343	24	2222 2333	19	1111 2221	11
28	4332 5354	29	0121 1111	8	4313 4454	28	3331 3443	24	3322 3343	23	2111 1220	10
29	4222 2133	19	1111 1112	9	4423 4454	30	2222 2333	19	3334 6755	36	0021 2312	11
30	2222 3223	18			3343 4555	32	1322 2231	16	5753 5543	35	1111 3321	13
31	3324 2412	21			5344 4453	32			3322 2443	23		

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939												
Date	July		August		September		October		November		December	
	1932	Indices	Sum	Indices								
1	1111 2231	12	2222 3433	21	3221 3323	19	3111 2113	13	2443 3222	22	1122 1232	14
2	1121 1311	11	5333 4545	32	3322 3313	20	2113 4233	19	3332 3131	19	2111 1132	12
3	1122 2211	12	3243 4444	28	1111 2223	13	3232 3113	18	1233 1221	15	1211 1122	11
4	1212 4333	19	3343 3321	22	1121 2233	15	2121 3323	17	2222 2333	19	2211 2212	13
5	3221 3444	23	3334 3232	23	2121 3313	16	3212 2233	18	3222 2322	18	2211 1112	11
6	3444 5423	29	3211 3223	17	2333 4444	27	2111 1122	11	2222 1122	14	2211 1124	14
7	3333 3332	23	1221 2111	11	1112 1224	14	4111 2211	13	2112 1421	14	2110 1001	6
8	3233 3434	25	2221 1221	13	4521 2343	24	1211 1133	13	1122 1123	13	2332 2224	20
9	3223 3433	23	1333 1112	15	4322 2333	22	3112 3433	20	2122 2111	12	4333 2332	24
10	3323 2323	21	1121 2121	11	2211 2223	15	3322 3442	23	1222 1121	12	3122 3333	20
11	1212 2222	14	1112 1223	13	2221 2211	13	2122 1133	15	1121 2121	11	1111 1123	11
12	1223 2232	17	3412 3423	22	1121 1113	11	3111 1233	15	2122 2332	17	1222 1010	9
13	1212 2111	11	3342 2333	23	1212 2212	13	1022 2222	13	2222 2323	18	1212 2334	18
14	1122 3112	13	2122 2222	15	1222 2332	17	0011 1222	9	2133 3314	20	3224 4554	29
15	1101 1122	9	1112 2322	14	1122 2213	14	2444 4434	29	2321 2342	19	4322 3354	26
16	2143 5334	25	2112 1211	11	1122 2210	11	4443 2312	23	4444 4455	34	5222 2444	25
17	3322 2212	17	1111 2221	11	0021 2222	11	3233 4444	27	2233 4343	24	4223 3353	25
18	1222 2321	15	2112 2122	13	3122 2425	21	3211 2212	14	2222 2343	20	3321 3111	15
19	1212 2324	17	1211 2111	10	4233 3424	25	1332 2111	14	2122 2222	15	2222 3342	20
20	1111 1222	11	0111 2212	10	4332 3323	23	1122 3545	23	2122 2323	17	3121 1111	11
21	2223 3323	20	3332 3333	23	3332 1223	19	4534 3221	24	2111 1222	12	2110 1110	7
22	3111 2133	15	3123 3451	22	2323 3434	24	1112 3353	19	1121 1210	9	0111 1121	8
23	1221 2320	13	1223 3312	17	3343 3454	29	4333 4544	30	1111 2112	10	0111 1112	8
24	0111 2333	14	2112 1222	13	4443 4553	32	2223 4243	22	0111 1111	7	2112 1111	10
25	2111 1222	12	1221 2223	15	4433 4545	32	2222 1321	15	0222 2433	18	0222 3333	18
26	2332 1322	18	2111 2112	11	4333 1243	23	2212 2121	13	2122 1101	10	3221 2232	17
27	1122 2212	13	2343 5555	32	4322 3433	24	1223 4423	21	0210 1112	8	4412 2232	20
28	1221 2111	11	5555 4544	37	2221 2212	14	1211 0110	7	1112 2311	12	1112 4444	21
29	1111 2211	10	434* *455	-	4112 2133	17	1111 1114	11	3222 4323	21	2111 2222	13
30	1112 3333	17	3333 4444	28	3232 2314	20	3233 3333	23	3122 1110	11	1222 2233	17
31	3222 2432	20	3232 3223	20			3121 2112	13			4232 2244	23

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1933												
1	3222 2353	22	1011 1112	8	2212 3133	17	3323 2333	22	3233 5665	33	4533 3332	26
2	3322 2133	19	2222 2322	17	3112 1122	13	2212 1133	15	5222 2223	20	2212 3322	17
3	3211 2111	12	1011 1224	12	1212 2332	16	3333 4222	22	3332 3342	23	2222 2322	17
4	2111 1101	8	3012 2232	15	3212 1121	13	4321 2122	17	3332 2451	23	2112 2221	13
5	1111 1110	7	3221 2111	13	0111 1111	7	2222 2222	16	2332 3334	23	2211 2111	11
6	1433 4223	22	3111 1111	10	1111 3211	11	3222 2234	20	4423 4234	26	0121 1111	8
7	3312 2331	18	1222 3222	16	0011 2112	8	2323 3454	26	4222 3211	17	2221 1212	13
8	2222 2113	15	0122 2122	12	2111 2222	13	2223 2443	22	2112 2231	14	2333 2243	22
9	2111 2212	12	3322 1122	16	2111 1112	10	3133 3312	19	0112 1211	9	3232 3311	18
10	1111 1111	8	2211 1103	11	2211 1122	12	2222 3431	19	1222 1110	10	2112 3321	15
11	1112 1111	9	1011 1211	8	4312 3212	18	1122 2211	12	2212 2221	14	1211 2211	11
12	1011 2111	8	1122 2210	11	1122 2222	14	1111 1111	8	1111 1212	10	2211 2223	15
13	2111 1111	9	0001 1102	5	1313 2321	16	1112 2111	10	1322 2233	18	4543 5445	34
14	2111 1133	13	2222 2142	17	1322 2311	15	0011 3332	13	4223 2453	25	4233 3323	23
15	3454 2124	25	2322 2323	19	1112 2101	9	1313 3354	23	2323 2334	22	4222 2223	19
16	3222 2211	15	1111 1101	7	3111 1221	12	3423 3355	28	3111 2332	16	1112 2221	12
17	1133 2112	14	0011 1110	5	1012 2222	12	4434 5334	30	3112 2334	19	1221 3212	14
18	1212 1122	12	0001 2232	10	3432 3436	28	5333 3434	28	4433 3332	25	1112 2122	12
19	1222 4433	21	3324 4455	30	5322 3565	31	4233 4344	27	2222 3243	20	2223 3223	19
20	3431 1112	16	5334 3334	28	5433 3454	31	2443 3343	26	2211 1112	11	4433 3433	27
21	1111 1022	9	3433 4546	32	4334 4325	28	3223 3346	26	2221 1112	12	2122 3223	17
22	1121 2445	20	5333 3454	30	5434 4343	30	3342 3443	26	2212 3213	16	3221 2221	15
23	3222 3244	22	4432 4554	31	3533 3544	30	2342 3343	24	1212 2223	15	0111 1222	10
24	5322 3322	22	3344 3555	32	3443 3545	31	3222 2223	18	1112 2222	13	1122 1121	11
25	4233 3334	25	5333 2245	25	5332 3322	21	3122 3322	18	3122 3232	18	1212 2443	19
26	4322 3343	24	4433 3245	28	2133 1322	17	4122 2342	20	1111 1100	6	2223 2311	16
27	4333 3445	29	3323 1224	20	1232 3432	20	1212 1134	15	1111 2343	16	0133 4422	19
28	4323 4444	28	2211 1113	12	2322 3334	22	3212 2223	17	4211 2122	15	4221 4343	23
29	3222 2333	20			2233 2334	22	2111 2122	12	1132 3344	21	3322 3422	21
30	3423 2323	22			3212 2213	16	1112 3555	23	4332 3443	26	2322 3323	20
31	3222 2313	18			3223 2233	20			2323 5423	24		

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## THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939

Date	July		August		September		October		November		December	
	1933	Indices	Sum	Indices								
1	1112 2233	15	1111 2211	10	3322 3223	20	1101 1122	9	1222 2122	14	2222 2212	15
2	3221 2222	16	1211 2213	13	3222 2324	20	2222 2121	14	1223 2333	19	2212 2324	18
3	3222 1331	17	2211 1211	11	2122 2222	15	1111 1113	10	1212 2354	20	2213 3154	21
4	2211 2231	14	1112 1122	11	2222 3132	17	2221 2223	16	2232 4454	26	2344 4342	26
5	3222 2311	16	3233 4563	29	1131 3211	13	4334 4234	27	2322 2334	21	2443 5533	29
6	2212 1221	13	4433 4441	27	0132 1223	14	3443 4321	24	4333 5444	30	3222 3323	20
7	0113 2212	12	2222 3213	17	2231 3223	18	4434 3544	31	5333 3554	31	3223 4243	23
8	2122 2344	20	2222 2323	18	3332 2233	21	3334 2333	24	4544 5344	33	2111 2221	12
9	4244 4332	26	2221 2222	15	3565 4433	33	3432 3444	27	2332 2344	23	1111 4445	21
10	1222 2333	18	2222 2212	15	4433 3333	26	4333 2354	27	2422 2223	19	3222 2445	24
11	3223 4322	21	1121 1111	9	3232 2223	19	3223 2224	20	3333 3343	25	2221 2232	16
12	3321 3222	18	1112 1222	12	4322 3321	20	5532 3211	22	3222 2232	18	2110 2222	12
13	2112 2212	13	2122 3464	24	1112 4464	23	0223 4525	23	2213 2321	16	3210 2212	13
14	3221 2122	15	2322 3323	20	4223 3454	27	5234 3452	28	1213 1222	14	1211 2222	13
15	1112 2211	11	2222 3342	20	5532 4434	30	2311 3332	18	2322 2221	16	0212 1222	12
16	1112 3222	14	2221 2123	15	3223 2444	24	2222 2211	14	0212 2112	11	2201 1232	13
17	2223 4333	22	2332 4332	22	3222 2342	20	2111 2224	15	2222 1222	15	2222 3222	17
18	4323 3331	22	3232 3554	27	4423 3322	23	3333 3443	26	2222 3321	17	3322 1244	21
19	2211 2222	14	4343 3222	23	1221 3434	20	3111 1113	12	2212 2224	17	4222 3322	20
20	3223 3311	18	2221 3334	20	3322 2322	19	2111 2212	12	4212 1234	19	2111 2233	15
21	1311 1220	11	3232 4542	25	3322 2123	18	2112 2211	12	4312 3423	22	2111 1131	11
22	3111 2221	13	2122 1111	11	4222 3213	19	0122 1211	10	3212 2221	15	1212 2223	15
23	2113 4435	23	1134 4443	24	3232 2223	19	1112 1113	11	2312 1233	17	1111 1222	11
24	4353 4512	27	2244 2443	25	3221 2212	15	1223 3332	19	2222 1211	13	1011 2111	8
25	2112 3312	15	4332 2222	20	2212 3333	19	4333 2333	24	2212 1122	13	1211 1322	13
26	1122 3323	17	3322 3321	19	2122 2234	18	3231 2314	19	2212 1111	11	2221 2123	15
27	3333 3234	24	2222 2112	14	2322 2233	19	3211 1112	12	1211 2354	19	2111 1321	12
28	1222 2121	13	1211 2122	12	3222 2244	21	2222 2111	13	3232 3221	18	1111 1124	12
29	2212 3211	14	2221 2110	11	3221 1331	16	1111 1111	8	2212 2232	16	4311 1221	15
30	1111 2112	10	2111 2211	11	0112 2232	13	1111 1211	9	3211 2132	15	0111 1101	6
31	2121 3222	15	1211 2212	12			0012 2210	8			1111 2211	10

## MAGNETIC OBSERVATIONS, ABINGER 1940.

THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939												
Date	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1934												
1	1123 2555	24	2111 2111	10	1112 1232	13	3333 3444	27	3222 2212	16	1111 2222	12
2	2323 4441	23	1113 2144	17	2224 3343	23	3213 3232	19	3222 3455	26	0112 2222	12
3	1232 2322	17	1212 2133	15	4212 2121	15	2223 3342	21	4322 3324	24	0112 2112	10
4	3111 2211	12	3322 2444	24	0012 3546	21	3122 2445	23	2113 3113	15	1111 3343	17
5	1212 1121	11	3112 2333	18	3454 3355	32	4233 3442	25	2112 2332	16	4323 4544	29
6	0101 2221	9	1111 2112	10	4333 3342	25	3334 2233	23	2212 2223	16	4333 2432	24
7	2111 1232	13	3113 2122	15	3334 3345	28	3222 2221	16	2111 1232	13	3222 3211	16
8	2222 2213	16	1011 1233	12	3222 2123	17	1121 3323	16	3111 1212	12	1012 3443	18
9	2211 2113	13	5433 3442	28	2122 1243	17	1311 2120	11	1222 3212	15	3322 3233	21
10	2111 2122	12	1212 4452	21	3333 3243	24	0221 1013	10	3211 2224	17	2211 2222	14
11	3112 2122	14	2322 2233	19	2422 2153	21	2111 2211	11	2322 2236	22	2122 3443	21
12	1222 2111	12	2212 1134	16	2212 1212	13	2211 2221	13	5332 2324	24	4422 3431	23
13	2122 1211	12	3222 1124	17	1111 1133	12	2113 2211	13	3222 3211	16	1212 2211	12
14	2122 2335	20	2112 2111	11	1012 1222	11	1112 2222	13	1211 2221	12	1121 3334	18
15	3222 2143	19	2113 2444	21	4323 3111	18	2112 2114	14	0112 1112	9	4332 2321	20
16	3323 2133	20	1122 6453	24	1133 3234	20	3333 4433	26	1212 1210	10	2112 3332	17
17	1112 2212	12	3333 3344	26	4212 2223	18	2212 1211	12	1212 1213	13	1211 2333	16
18	2223 2153	20	3223 3543	25	3222 2324	20	0011 1112	7	1333 5533	26	1122 3533	20
19	3221 2121	14	1223 2332	18	3122 2112	14	0112 2332	14	4222 3323	21	2122 2221	14
20	2112 3221	14	2223 2232	18	2111 1121	10	2321 2322	17	1111 1331	12	0312 2333	17
21	1232 2221	15	1112 2233	15	3121 2222	15	2112 3221	14	2113 3442	20	0111 2111	8
22	1012 2224	14	3322 1122	16	2432 2345	25	2122 3312	16	1123 3322	17	0112 1111	8
23	4222 2343	22	2121 2222	14	3221 1345	21	1112 1122	11	2232 2331	18	1111 1232	12
24	3222 2233	19	1112 2224	15	2122 1235	18	1223 1112	13	1111 1332	13	1222 1111	11
25	3121 2222	15	2213 3213	17	5324 3434	28	1222 2223	16	1112 2443	18	1121 1220	10
26	1122 2233	16	2112 2211	12	3111 1244	17	2111 1122	11	3212 1221	14	1112 2110	9
27	2211 2112	12	1112 2322	14	2221 2243	18	2121 2222	14	0111 1211	8	0112 3433	17
28	2012 3323	16	2113 2321	15	1011 3244	16	2221 2101	11	0011 1200	5	3222 2323	19
29	3323 2232	20			4323 2323	22	1012 1221	10	0111 2221	10	3211 2221	14
30	3222 2133	18			2221 2134	17	0111 2222	11	1211 2222	13	1111 2111	9
31	2212 2232	16			4344 5344	31			2112 2221	13		

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## THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939

Date	July		August		September		October		November		December	
	1934	Indices	Sum	Indices								
1	3411 2222	17	4333 3322	23	2122 3324	19	1122 3223	16	0111 1111	7	0323 3333	20
2	2222 2211	14	2222 3322	19	3431 3444	26	2222 2121	14	2112 1111	10	2422 2111	15
3	1114 5542	23	3424 4543	29	4233 3333	24	1112 2101	9	0112 1142	12	2322 2225	20
4	3233 3322	21	3232 3344	24	2222 3333	20	0111 3223	13	1212 2212	13	5543 4423	30
5	3332 3322	21	4313 3213	20	0122 2112	11	1112 2321	13	1012 2333	15	3322 1441	20
6	2222 2321	16	3233 3213	20	2012 2222	13	1122 2213	14	3112 1111	11	1122 2221	13
7	2322 2221	16	1113 3122	14	3212 2221	15	1121 3322	15	1324 4554	28	1232 2142	17
8	1111 2222	12	0112 3213	13	3122 2331	17	0112 2101	8	3234 3423	24	2221 1222	14
9	2321 2222	16	1111 1121	9	1111 1122	10	1011 1100	5	3333 2132	20	1111 1222	11
10	2121 1111	10	2221 1222	14	0111 2112	9	0011 2121	8	2121 2222	14	1011 1122	9
11	1211 2441	16	2222 2111	13	2122 3132	16	0112 2111	9	1112 1222	12	1112 2321	13
12	2311 2232	16	1111 1345	17	3333 2232	21	3322 2123	18	2111 1232	13	0101 2212	9
13	1122 2321	14	4222 3413	21	1111 3112	11	3332 2233	21	0012 2223	12	0210 1013	8
14	1112 2342	16	1112 3334	18	1122 2211	12	2221 1211	12	2321 1212	14	1011 1233	12
15	3222 2311	16	1221 2233	16	1021 1223	12	1222 3444	22	0012 1222	10	3222 2231	17
16	3332 2331	20	3212 3223	18	2323 3333	22	2112 1111	10	1121 1111	9	2101 1000	5
17	0113 2323	15	3221 3333	20	4233 3322	22	3111 1133	14	1211 2113	12	0011 1012	6
18	2212 2221	14	3223 2233	20	2212 2012	12	4212 1120	13	3211 1122	13	1111 1114	11
19	1222 1211	12	3312 3433	22	1111 2434	17	0011 1110	5	2211 2111	11	3221 2122	15
20	1121 3321	14	1012 1222	11	3122 3323	19	0111 1244	14	1111 1111	8	3111 2111	11
21	2111 3113	13	0122 3331	15	1111 2233	14	3222 2232	18	1111 1111	8	3122 4342	21
22	2112 1111	10	2233 3331	20	5222 3221	19	2321 2121	14	0011 1101	5	2221 1114	14
23	0022 2111	9	1011 1133	11	2112 2211	12	2111 1103	10	2111 1111	9	2111 1001	7
24	0112 2322	13	1211 2101	9	1244 4345	27	3444 4432	28	1121 2543	19	1212 2434	19
25	1122 2213	14	1112 1122	11	5544 5673	39	4232 3533	25	3233 2212	18	4222 3343	23
26	2222 2121	14	2223 4334	23	3113 3234	20	3233 4441	24	3111 1111	10	2322 2111	14
27	2211 2121	12	4432 3434	27	2442 3553	28	3212 2213	16	2111 1112	10	1101 1221	9
28	1112 2222	13	4344 3434	29	3123 4241	20	1321 3311	15	2222 2133	17	3111 1211	11
29	2322 3352	20	3443 3344	28	1112 2342	16	1111 1111	8	1111 2331	13	1122 3565	25
30	1454 5323	27	2333 3333	23	3332 2253	23	2111 1212	11	1111 1111	8	5323 4543	29
31	4222 2532	22	3122 3223	18			0122 1211	10			3411 2344	22

## MAGNETIC OBSERVATIONS, ABINGER 1940.

THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939													
Date	January		February		March		April		May		June		
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	
1935													
1	1244 2133	20	1223 3433	21	1133 4242	20	0021 1121	8	1113 6546	27	2212 2211	13	
2	4323 2331	21	3533 3442	27	2133 3322	19	1122 1111	10	4423 2222	21	0212 2221	12	
3	2123 3234	20	1133 4232	19	3212 2353	21	0022 3211	11	1212 3211	13	1111 2111	9	
4	4132 1333	20	2122 2121	13	3112 2211	13	2222 2223	17	0011 2212	9	2323 4433	24	
5	2122 1133	15	2111 1113	11	0111 1224	12	1223 2112	14	2011 1111	8	1232 3422	19	
6	1111 0008	6	2222 1112	13	2122 1232	15	2121 1110	9	1011 2110	7	1213 3232	17	
7	1122 1121	11	1111 2223	13	2102 2224	15	1022 3111	11	2112 3111	12	1233 5646	30	
8	1111 2123	12	3212 3322	18	2122 2233	17	1233 2423	20	1111 2110	8	5344 4443	31	
9	3111 1112	11	3221 2131	15	2212 3212	15	3433 2311	20	0011 1211	7	3234 5444	29	
10	1111 1223	12	2122 2411	15	2212 2222	15	2124 4554	27	1121 3543	20	3234 4453	28	
11	4222 2213	18	1111 1112	9	2212 4232	18	5445 5555	38	3323 3333	23	2311 5642	24	
12	2111 2123	13	3222 1111	13	2121 1114	13	4343 4544	31	3322 2215	20	2112 2333	17	
13	3222 2122	16	2333 3*56	(28)	4323 3551	26	4433 4543	30	3222 2333	20	3213 2222	17	
14	1112 1113	11	5434 3433	29	2244 5654	32	3222 2223	18	3221 2110	12	3213 2211	15	
15	3223 2323	20	3323 2333	22	4443 4443	30	3322 2322	19	0011 2233	12	0111 1111	7	
16	1111 1124	12	2123 3343	21	3233 3544	27	2132 2324	19	3344 4322	25	1112 2222	13	
17	5334 4424	29	3222 1133	17	2323 3224	21	3221 2322	17	2211 3211	13	2212 2433	19	
18	4322 3344	25	4132 1144	20	4111 2343	19	1432 3243	22	0211 2143	14	3332 4463	28	
19	3122 2232	17	1222 2131	14	3223 2132	18	2112 3222	15	3222 2213	17	4324 4333	26	
20	3232 1123	17	1223 2333	19	3222 3344	23	3123 1212	15	3543 3333	27	3332 2243	22	
21	2122 1144	17	4224 3434	26	2333 3544	27	2211 2121	12	2122 2333	18	2212 3321	16	
22	4322 1323	20	3323 1121	16	4221 1112	14	1011 2222	11	3312 2222	17	1222 2111	12	
23	4323 3344	26	2222 2235	20	2211 3223	16	1122 3134	17	1112 1222	12	1212 3222	15	
24	2323 2444	24	2113 3333	19	4422 3343	25	3111 3323	17	1111 2111	9	1212 2222	14	
25	3212 3233	19	4223 3222	20	2122 3212	15	1311 2211	12	2112 3221	14	1111 2122	11	
26	4212 2313	18	3432 3433	25	2212 1222	14	0121 1212	10	2222 2322	17	2112 1221	12	
27	1112 4255	21	1112 2101	9	3322 2222	18	2111 1111	9	0112 2222	12	3123 2221	16	
28	5333 3222	23	0112 2212	11	1012 2212	11	1101 1010	5	1221 2211	12	2322 3233	20	
29	3021 1010	8			3111 1102	9	0011 1111	6	2222 2321	16	3222 2333	20	
30	0122 3122	13			0012 5544	21	1022 2322	14	1222 4333	20	3323 3332	22	
31	3244 2111	18			1223 2311	15			1222 2321	15			

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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Date	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	2212 3221	15	3222 3322	19	5422 2111	18	2342 2133	20	2323 2211	16	2243 3434	25
2	2323 3322	20	2112 3211	13	0111 2211	9	1111 1334	15	2333 3434	25	3333 4214	23
3	2121 2221	13	2111 2211	11	0222 2222	14	3111 1111	10	4233 2433	24	4322 2432	22
4	1222 3222	15	1111 2231	12	2112 3344	20	2112 2231	14	2112 2101	10	2111 1112	10
5	1122 3221	14	2123 2233	18	2322 3232	19	2111 2101	9	3223 3555	28	2112 1222	13
6	1212 2122	13	2222 3323	19	1122 2212	13	0111 1112	8	4443 2101	19	1111 2112	10
7	0111 2214	12	3222 2222	17	2311 4322	18	4223 3233	22	1112 2132	13	1212 3233	17
8	3353 4333	27	2111 3313	15	3122 2210	13	1112 3333	17	2222 2331	17	3112 1232	15
9	3322 3323	21	2222 1222	15	1211 2233	15	3113 3211	15	1013 2123	13	2112 2134	16
10	2112 2222	14	2222 2223	17	3324 3343	25	2211 2444	20	1111 1211	9	4112 1312	15
11	1134 4321	19	1111 2221	11	4443 6566	38	1212 4453	22	1122 2233	16	1122 2114	14
12	1322 2222	16	1122 2111	11	5532 1232	23	4112 2211	14	3434 4435	30	2121 2333	17
13	1122 3222	15	1112 3123	14	1212 2212	13	2212 2221	14	5333 3434	28	3232 3321	19
14	3132 3533	23	1112 1210	9	1112 2233	15	2343 3133	22	3333 2354	26	1113 4445	23
15	2222 3321	17	0112 3322	14	2122 3334	20	4423 4443	28	2222 1110	11	4442 3442	27
16	2122 3312	16	2213 2232	17	3432 3334	25	3433 3341	24	0012 1233	12	3234 4434	27
17	1112 2211	11	1111 1112	9	5442 3433	28	2322 3333	21	2112 1121	11	2223 3113	17
18	2111 3222	14	1011 2110	7	4343 4224	26	4332 2232	21	1111 2424	16	2222 2243	19
19	3422 3323	22	1232 3333	20	3433 2244	25	3233 3143	22	3233 3324	23	3122 3223	18
20	2113 3321	16	2322 3323	21	3223 2111	15	2125 5555	30	1132 3423	19	3121 2222	15
21	1112 2232	14	4333 2323	23	1111 2112	10	2344 3665	33	2223 2310	15	1022 1222	15
22	2342 3324	23	3123 3243	21	1111 1112	9	4333 4343	27	0012 1233	12	2011 1111	8
23	3223 3311	18	4243 3223	23	2233 6544	29	3223 1122	16	2122 1200	10	0001 1111	5
24	2233 3355	26	3122 3223	18	5323 3333	25	2145 4532	26	1112 2122	12	1111 2124	13
25	5444 4443	32	4232 1121	16	4455 4534	34	3223 2244	22	2011 1101	7	4223 2343	23
26	3212 1331	16	1212 2221	13	3443 4322	25	4221 2111	14	2111 1022	10	3332 3444	26
27	3322 2223	19	1111 3454	20	3242 3223	21	2334 3455	29	1021 2451	16	3433 3343	26
28	1122 2122	13	3232 3432	22	3232 3332	21	4223 3443	25	1122 3222	15	5335 3244	29
29	2221 3232	17	1311 3212	14	3222 2124	18	3213 2421	18	1212 1244	17	4222 3234	22
30	2212 2211	13	3232 2212	17	1233 3545	26	2332 3422	21	2343 3444	27	3222 2243	20
31	1211 2323	15	3332 1223	19			2333 3443	25			2112 2323	16

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date 1936	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3211 1221	13	3111 1122	12	1222 2111	12	2123 3343	21	4322 2210	16	2233 3554	27
2	2111 2212	12	1111 1344	16	0012 1113	9	3223 2325	22	2222 2121	14	2334 4553	29
3	1111 1121	9	2222 1132	15	1111 1111	8	1223 3454	24	1222 1122	13	2332 3434	24
4	2011 1122	10	2232 2221	16	1012 2111	9	3233 2111	16	2222 5544	26	3223 3322	20
5	1122 1101	9	1122 2111	11	3122 2113	15	0123 1111	10	2222 2322	17	1221 3221	14
6	0111 1121	8	3022 2211	13	2333 1213	18	1122 2221	13	2112 2221	13	1111 1221	10
7	1112 1211	10	0021 2321	11	1122 3111	12	1112 3320	13	0112 2121	10	0112 2332	14
8	1332 3334	22	2012 2323	15	2223 3413	20	1233 3332	20	2122 1220	12	3232 3535	26
9	4323 1343	23	2423 3334	24	1223 3342	20	2122 2121	13	0111 2210	8	3454 5643	34
10	3223 3342	22	3324 2444	26	2222 2211	14	1123 2211	13	0112 4553	21	2433 4443	27
11	2122 2331	16	3323 2113	18	0111 2110	7	3122 2232	17	3234 4432	25	3222 4323	21
12	3323 3243	23	0112 3111	10	1122 2111	11	3222 3334	22	3344 4465	33	2232 3322	19
13	4223 3443	25	1011 1111	7	1121 2220	11	2333 3533	25	4322 1223	19	3322 3433	23
14	2222 2323	18	2012 3432	17	0221 1222	12	2233 2243	21	1222 4333	20	3333 3434	26
15	2222 1122	14	4212 3422	20	3222 2223	18	1243 3443	24	3223 1332	19	4433 4443	29
16	2012 1102	9	3125 5454	29	2222 1122	14	4322 2231	19	4343 4434	29	3333 3342	24
17	2322 1112	14	4333 3453	28	2122 2334	19	3123 2335	22	3333 2233	22	3221 3322	18
18	2423 3443	25	2212 2321	15	3223 2244	22	6533 3454	33	5244 3354	30	2212 3345	22
19	2222 3232	18	2233 3566	30	3233 2243	22	3433 3535	29	3433 4443	28	5664 5433	36
20	1111 1243	14	4212 2233	19	3433 3334	26	4432 3444	28	3333 4443	27	4442 3431	25
21	3211 2244	19	3233 4453	27	4434 2344	28	4343 4456	33	2231 3433	21	1222 3211	14
22	3223 2333	21	4433 4335	29	5213 2343	23	4454 5555	37	2312 2312	16	1222 3322	17
23	2332 1112	15	2223 3345	24	2343 3452	26	4343 4544	31	2211 2222	14	1121 2211	11
24	4212 2455	25	3113 3223	18	3343 3454	29	3232 2323	20	0111 1110	6	1122 3433	19
25	4433 3421	24	3212 3233	19	4323 3224	23	3223 4213	20	0101 2232	11	3311 1211	13
26	4333 3435	28	4223 2444	25	5333 3244	27	1112 2321	13	2222 4333	21	0222 3543	21
27	2322 3224	20	4334 3322	24	3222 3343	22	0112 2331	13	1222 2323	17	3222 2112	15
28	3332 3231	20	2213 2111	13	4323 3222	21	1312 3323	18	3121 3332	18	3221 2222	16
29	1111 2243	15	1013 2324	16	3423 2212	19	1322 2011	12	1223 5433	23	2122 1221	13
30	2333 3333	23			2213 1111	12	1222 2312	15	2221 3434	21	1111 3222	13
31	4122 2233	19			3123 2322	18			4311 2221	16		

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## THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939

Date 1936	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	2212 2222	15	4222 2222	18	1112 1121	10	3222 2123	17	1012 2223	13	2222 2232	17
2	3444 4453	31	3132 2323	19	2223 3211	16	1112 3311	13	1121 4133	16	2222 2123	16
3	4222 2221	17	2112 3233	17	1122 2211	12	1112 2111	10	2423 3363	26	2212 *332	(17)
4	* 0112 2233	14	2323 3112	17	2223 2223	18	2022 2113	13	3432 2312	20	2323 3322	20
5	4334 2432	25	1223 3432	20	2223 2222	17	1122 3343	19	4223 2223	20	3222 2233	19
6	4234 5434	29	3332 2331	20	2312 2102	13	3433 2225	24	2233 2224	20	3213 2332	19
7	3323 3431	22	0111 1122	9	0012 2111	8	2132 3344	22	2233 3234	22	2111 2241	14
8	3323 3342	23	2222 2444	22	1122 2221	13	3433 2341	23	3122 1324	18	2111 1131	11
9	1111 1332	13	2322 2333	20	3122 3321	17	1234 3343	23	4422 1211	17	1111 2111	9
10	3333 4454	29	2232 4331	20	1213 3222	16	4544 2331	26	2132 2333	19	1211 1111	9
11	4344 4553	32	1112 2221	12	2223 3424	22	1122 3212	14	1332 2555	27	1112 1111	9
12	3222 3335	23	1102 3323	15	2211 1223	14	1022 1111	9	2421 2221	16	1211 3332	16
13	3332 3441	23	1233 2121	15	1121 1111	9	0122 2212	12	1111 1111	8	3312 2234	20
14	1211 2221	12	1112 3322	15	1112 2211	11	0022 2322	13	3112 1221	13	2322 3311	17
15	1222 2222	15	2232 2222	17	2212 2211	13	3332 2234	22	2233 3434	24	1112 2111	10
16	4432 3332	24	2111 1221	11	1001 2110	6	2232 2455	25	2333 3433	24	1011 1232	11
17	4223 3444	26	2112 0122	11	1111 1003	8	5543 3232	27	2222 2334	20	1112 2121	11
18	3423 3332	23	2111 1110	8	1123 3232	17	3234 2210	17	3333 3444	27	2121 2121	12
19	3222 3222	18	0112 2311	11	1101 2111	8	1112 2233	15	3333 3343	25	1112 1110	8
20	3222 3321	18	1112 3332	16	1112 2211	11	4322 3332	22	3232 2212	17	1112 2122	12
21	1122 2122	13	3122 2211	14	1023 3113	14	3112 2211	13	2111 3123	14	2122 2223	16
22	1222 1222	14	2121 1220	11	2223 2223	18	0021 2111	8	2111 1111	9	1111 2212	11
23	1121 2211	11	0112 2222	12	2333 3311	19	1111 2244	16	1111 1111	8	2212 2111	12
24	1121 2221	12	1112 2222	13	2222 2212	15	2223 4554	27	1002 1111	7	1101 1111	7
25	2223 3223	19	1111 2323	14	1111 1112	9	2222 2311	15	1111 1111	8	0111 1110	6
26	3121 2121	13	3112 3211	14	3333 4334	26	2112 3111	12	1112 2231	13	0012 1110	6
27	1122 3332	17	2123 3223	18	1123 3321	16	0111 1111	7	2111 0111	8	0322 3345	22
28	4322 3332	22	2222 2223	17	1114 3223	17	1122 2211	12	0001 2215	11	4544 4423	30
29	1233 5644	28	1111 1124	12	2322 3333	20	1211 2212	12	5645 4332	32	1122 2212	13
30	3332 2121	17	4432 3543	28	1011 1112	8	2221 2211	13	1122 2321	14	1111 1133	12
31	0123 3423	18	3333 2221	19			4244 4421	25			1112 1212	11

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1937												
1	1111 2211	10	3332 2221	18	3234 3345	27	3*** 3333	-	4423 3333	25	3333 3331	22
2	1112 2234	16	0123 2224	16	4343 3342	26	3334 2464	29	2221 2323	17	2333 3323	22
3	2312 2212	15	6554 3573	38	2123 2110	12	4443 3334	28	1222 2344	20	4223 2211	17
4	3222 2222	17	3224 4243	24	0122 3112	12	3222 3232	19	3333 3454	28	1222 4433	21
5	1222 2222	15	3333 3354	27	2335 4435	29	2222 2221	15	6653 5621	34	4333 3335	27
6	2122 2212	14	2324 3343	24	4222 2112	16	1222 3211	14	1211 2111	10	5544 4433	32
7	2112 2464	22	2233 3233	21	1012 2211	10	1122 2323	16	1121 3321	14	3222 3333	21
8	3222 2222	17	1122 2223	15	0123 1121	11	1111 0101	6	1022 1223	13	3222 2334	21
9	2234 3345	26	4223 4355	28	3313 2222	18	1111 1110	7	2223 4334	23	3122 2121	14
10	4123 3345	25	3322 4133	21	2112 2322	15	0112 2212	11	3322 3233	21	0442 1222	17
11	2232 2235	21	3332 3343	24	1122 1***2	-	4333 2331	22	4332 3321	21	3222 3321	18
12	3222 3423	21	2122 2344	20	1022 2211	11	1123 4444	23	2322 3322	19	1112 2221	12
13	4332 2232	21	1333 3334	23	04** 2325	-	4022 2233	18	1332 3312	18	2334 5532	27
14	1123 1112	12	4222 2354	24	5533 2423	27	0221 1222	12	1233 4443	24	3442 3333	25
15	1111 1211	9	4222 3342	22	3234 4322	23	1111 2222	12	3332 4422	23	2242 3222	19
16	2212 2211	13	4223 3412	21	2122 2233	17	1121 2321	13	4222 3333	22	4332 3433	25
17	0122 2222	13	1223 3323	19	3233 2224	21	1222 2232	16	2222 2331	17	4433 4332	26
18	1222 2212	14	3313 2244	22	1132 2223	16	4322 3123	20	0132 3332	17	3332 3332	22
19	1102 1222	11	5233 4543	29	3122 2222	16	3222 2234	20	1242 3221	17	2321 2231	16
20	1112 2342	16	2323 3332	21	2222 2112	14	3333 3222	21	0132 3121	13	4452 4454	32
21	3223 3334	23	1322 3343	21	0121 2333	15	4333 2322	22	1112 2532	17	4322 1333	21
22	2222 3221	16	1133 3321	17	3334 4445	30	1122 2313	15	0113 3331	15	2235 4443	27
23	1121 2211	11	2222 2213	16	3333 4221	21	2122 2342	18	2233 3232	20	2322 3322	19
24	0022 3112	11	1233 2222	17	2122 2234	18	2223 4547	29	1032 2233	16	2232 4442	23
25	1122 3010	10	2333 2221	18	1123 2112	13	6342 2677	37	3433 3334	26	3332 3323	22
26	0032 2211	11	1223 2311	15	2123 3244	21	5433 3577	37	4431 2333	23	2122 2120	12
27	0134 4343	22	3323 3221	19	4334 4434	29	6542 3356	34	3333 4444	28	3434 5644	33
28	2233 3233	21	3123 3232	19	4443 3324	27	6676 6755	48	3435 5445	33	3333 3322	22
29	3333 2212	19			1221 2113	13	1233 4444	25	5443 2333	27	3232 4222	20
30	1122 3432	18			2222 3342	20	3433 *343	-	2322 2333	20	2321 3231	17
31	1012 2211	10			2464 4555	35			4312 1233	19		

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THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939												
Date	July		August		September		October		November		December	
	1937	Indices	Sum	Indices								
1	3222 3332	20	3322 2433	22	1222 4424	21	5343 3343	28	0012 1222	10	4432 2231	21
2	2222 2343	20	4553 5533	33	2211 1110	9	3222 1110	12	3323 2233	21	3333 2112	18
3	2131 2112	13	2233 3234	22	2121 1111	10	3324 3444	27	3133 1111	14	2221 2132	15
4	2111 3222	14	6342 2341	25	1232 2222	16	6664 4433	36	0022 2210	9	2112 2111	11
5	3323 3433	24	4221 2332	19	4333 2222	21	2232 3312	18	1132 2111	12	1111 1231	11
6	4123 4433	24	2322 233*	(19)	2212 3323	17	2234 4331	22	1111 1111	8	2312 2223	17
7	4343 3333	26	***4 4232	-	1222 2232	16	3343 4334	27	2222 2333	19	2233 2442	22
8	1212 2322	15	2322 2211	15	1111 2232	13	5643 3522	30	4333 3334	26	3322 3443	24
9	1333 5434	26	1123 3321	16	1222 2213	15	0134 5554	27	3233 4313	22	2312 2233	18
10	5333 3211	21	1322 2221	15	1222 2446	23	4454 3325	30	1122 3301	13	3221 3233	19
11	1222 4534	23	1122 1233	15	5543 3322	27	2234 6553	30	2123 3243	20	3232 4222	20
12	4232 2221	18	2221 2221	14	1013 1112	10	3245 3265	30	3323 2133	20	3111 1121	11
13	1212 3224	17	2222 2221	15	3232 1334	21	3224 4310	19	1121 1331	13	1112 2122	12
14	2343 4542	27	1211 1133	13	2333 3222	20	1433 2221	18	2221 2101	11	1011 1111	7
15	3323 3433	24	3332 3212	19	3222 2122	16	1133 3352	21	0011 1111	6	0012 2211	9
16	1213 5422	18	1122 1222	13	1233 2242	19	2132 2222	16	1001 0000	2	2111 1111	9
17	2232 3333	21	1212 2212	13	2432 3231	20	2222 2222	16	1121 1322	13	1111 1211	9
18	1122 3233	17	2222 22**	-	2211 1334	17	3212 2122	15	3433 3444	28	1322 3544	24
19	1222 4563	25	***2 2323	-	4312 2120	15	1113 2231	14	3233 4423	24	4343 3552	29
20	4443 3333	27	1021 1231	11	1011 1013	8	1011 2110	7	3343 4424	27	3323 3543	26
21	3232 3233	21	2222 1213	15	5311 1024	17	0023 2232	14	2222 3233	19	2221 1333	17
22	4354 3344	30	1575 5442	33	1023 2222	14	1223 3334	21	2335 4553	30	2132 3232	18
23	3333 4554	30	2122 3221	15	2213 2234	19	4243 3546	31	3233 4554	29	3233 5551	27
24	6433 3443	30	1011 1110	6	2432 2212	18	6234 4454	32	3342 3242	23	1010 2463	17
25	4433 4543	30	0121 2220	10	2123 1212	14	3233 3323	22	2022 2232	15	2223 2113	16
26	2332 3321	19	***3 2232	-	1034 3212	16	4453 3444	31	1121 1213	12	3434 3300	20
27	1222 3331	17	2332 3434	24	3231 2321	17	3343 3333	25	1012 2234	15	1121 1110	8
28	2223 2222	17	3224 4222	21	1222 1221	13	2233 3334	23	2332 4434	25	0111 2211	9
29	0211 1222	11	3322 2212	17	2122 1100	9	2222 2322	17	3224 4444	27	3111 1111	10
30	2223 4422	21	2111 1200	8	0023 5555	25	3122 1021	12	2423 3565	30	1112 2211	11
31	0112 2323	14	1122 2112	12			2121 2032	13			2221 3355	23

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date 1938	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3223 2333	21	2222 4245	23	4333 4353	28	1032 1332	15	2222 2223	17	2232 2232	18
2	2322 4333	22	3222 3332	20	423* ***3	-	1133 1122	14	2132 3222	17	2*22 4445	(26)
3	3112 3342	19	3233 3433	24	3423 2221	19	3222 3332	20	2432 3334	24	4222 2123	18
4	2233 5555	30	3222 4433	23	1122 3334	19	2223 3322	19	4532 3653	31	2322 2220	15
5	3234 2211	18	3222 2221	16	4243 4565	33	1122 2101	10	3322 3444	25	2333 3331	21
6	2122 3532	20	3553 4564	35	5344 2333	27	2353 3344	27	3343 3421	23	2232 3321	18
7	4322 3455	28	4333 5433	28	3232 3331	20	4433 3322	24	0113 2310	11	2222 2225	19
8	4432 1124	21	2223 3665	29	2222 2213	16	2223 2333	20	1222 3223	17	4443 5554	34
9	5232 2211	18	4544 3443	31	1122 2223	15	1133 3233	19	1112 3223	15	2332 3433	23
10	2212 1221	13	4543 4312	26	1122 2211	12	3123 3332	20	4322 3322	21	2333 3442	24
11	2221 2321	15	4543 2331	25	1122 2233	16	1223 3534	23	3333 2888	38	3343 3444	38
12	1222 2455	23	1233 3212	17	3333 3322	22	2233 3243	22	6553 4546	38	4444 3555	34
13	4543 2343	28	4234 3343	26	1132 2213	15	2133 4546	28	5212 3213	19	3554 4434	32
14	2231 3223	18	3445 4542	31	3333 3232	22	5554 4443	34	3334 5435	30	4222 3212	18
15	2122 2244	19	2122 2111	12	3333 3222	21	4344 4333	28	5433 4423	28	2112 2222	14
16	2132 3337	24	2222 3102	14	1123 1222	14	3796 7545	46	3333 3333	24	0133 3333	19
17	6565 7746	46	0022 3012	10	3223 2312	18	2333 4544	28	3332 3343	24	2222 2342	19
18	3433 4555	32	2332 3313	20	2122 0211	11	4232 3453	26	2332 2221	17	1132 2222	15
19	3333 3553	28	2121 1101	9	1132 2211	13	4233 3343	25	2121 3322	16	2111 3421	15
20	2332 4453	26	0121 2102	9	1121 2222	13	2232 3232	19	2010 3212	11	2221 2223	16
21	3453 5535	33	1122 1100	8	2221 3335	21	2232 3333	21	2133 2311	16	3334 4222	23
22	5689 5655	49	0111 2212	10	4454 4345	33	3311 3444	23	2221 3432	19	2322 2212	16
23	3333 2244	24	3333 4333	25	5445 3365	35	4343 3545	31	1112 2221	12	0112 2220	10
24	3433 2334	25	3232 2233	20	5553 2313	27	3323 3332	22	1112 4544	22	1123 3332	18
25	4225 6799	44	2114 3441	20	3222 **34	-	3333 3333	24	4332 3234	24	2212 3222	16
26	9544 4442	36	3122 2243	19	5323 3333	25	3223 3212	18	2**2 2321	-	1132 3221	15
27	2333 3443	25	2222 3434	22	4121 2022	14	1212 2322	15	2322 2432	20	2223 3122	17
28	2222 3243	20	4333 3254	27	2222 2112	14	1212 2310	12	2343 4443	27	2122 2222	15
29	2323 1145	21			2023 3341	18	2211 2201	11	3453 5634	33	2131 2252	18
30	4222 2243	21			1233 2101	13	1222 2311	14	2243 4333	24	2322 3321	18
31	4234 3466	32			1032 3222	15			2232 2232	18		

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THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939												
Date	July		August		September		October		November		December	
	1938	Indices	Sum	Indices								
1	2452 4444	29	3233 3434	25	3222 2322	18	5644 3254	33	2222 3221	16	1111 2222	12
2	3433 3321	22	4433 3445	30	1223 3222	17	3322 3334	23	1123 3212	15	2112 3365	23
3	1222 3222	16	4232 1437	26	2332 2323	20	3222 2344	22	1122 2222	14	5433 3453	30
4	2222 5555	28	5464 4535	36	2122 3324	19	2313 4222	19	2123 2232	17	4322 1232	19
5	5423 5342	28	4442 5443	30	3323 4421	22	0132 2221	13	1122 2321	14	2223 3212	17
6	3323 3431	22	3333 2333	23	1122 2223	15	0233 3231	17	2122 2132	15	2211 2233	16
7	1121 3333	17	2342 4532	25	2222 2432	19	0243 5674	31	1133 1132	15	1111 2231	12
8	2322 3322	19	1233 3232	19	3222 3331	19	5654 5442	35	3324 3435	27	1122 1210	10
9	2122 2344	20	2133 3222	18	1133 3432	20	2143 2344	23	5353 3554	31	1322 2433	20
10	5333 4664	34	1333 4433	24	2233 3222	19	3333 3234	24	4222 2112	16	2233 3564	28
11	4332 2231	20	4343 4544	31	2323 3334	23	3323 2331	20	1022 2222	13	2333 2222	19
12	1232 4312	18	3333 3323	23	3322 3334	23	1133 2133	17	2122 2111	12	2232 3222	18
13	1213 4344	22	4322 3221	19	2422 2356	26	1122 2233	16	2132 2111	13	3232 2243	21
14	5433 4342	28	112* ***3	-	5532 3555	33	2132 2112	14	1022 3453	20	2123 2343	20
15	3353 5565	35	1223 2311	15	5664 5565	42	1132 2212	14	3222 2223	18	2222 2221	15
16	5345 4464	35	1113 1221	12	4232 2334	23	3323 3333	23	1222 2224	17	2223 3454	25
17	3232 2221	17	1122 3422	17	3431 3311	19	3113 3211	15	2223 5544	27	5443 3445	32
18	0122 3332	16	2222 2211	14	2212 3213	16	1223 2232	17	2223 3243	21	5334 4544	32
19	4333 3221	21	1221 2332	16	2112 2233	16	3322 3223	20	3233 2122	18	2232 3444	24
20	1232 2322	17	1111 2121	10	3121 3211	14	3333 3341	23	2132 3232	18	4222 3344	24
21	3223 3332	21	0023 3342	17	1122 3234	18	2213 3223	18	1124 4444	24	2222 3122	16
22	1322 2331	17	2221 5553	25	2333 3321	20	1133 3333	20	3432 3322	22	3453 3233	26
23	1221 3333	18	4444 6432	31	2332 3222	19	2233 3335	24	3332 3323	22	3122 2213	16
24	2132 2222	16	1223 3254	22	2222 2222	16	3333 4435	28	3332 3443	25	1122 2122	13
25	3122 2321	16	4333 3332	24	1122 2222	14	5334 4345	31	3223 2422	20	2112 3211	13
26	1222 3221	15	1233 3222	18	3254 4455	32	4334 4555	33	3343 3423	25	1110 2221	10
27	1232 3322	18	2233 3222	19	3232 2446	26	4443 4444	31	3223 2112	16	1012 2223	13
28	1232 3322	18	1232 3443	22	6643 4332	31	4233 4442	26	1122 2222	14	2112 2222	14
29	0123 4333	19	3232 3343	22	2333 3233	22	3231 1443	21	2132 1324	18	1122 2222	14
30	3544 5454	34	3433 3332	24	1213 5375	27	4122 2110	13	3112 2221	14	2213 2322	17
31	4222 2221	17	2322 2111	14			2212 2112	13			3112 2212	14

## MAGNETIC OBSERVATIONS, ABINGER 1940.

Date 1939	THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939											
	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	2121 2211	12	2122 3354	22	3223 4445	27	3433 3455	30	2236 5455	32	2233 4543	26
2	1222 2222	15	4333 3454	29	4434 3223	25	3422 2444	25	5444 4333	30	4443 4443	30
3	2122 2111	12	3332 3233	22	3333 3436	28	3333 3333	24	4333 3443	27	3333 4332	24
4	0121 2222	12	2323 3122	18	4432 3344	27	4332 3354	27	2223 2321	17	3333 4432	25
5	2322 3334	22	2123 2244	20	3222 2344	22	3333 4322	23	2333 3465	29	3333 4323	24
6	3112 2343	19	2335 4454	30	3232 3433	23	1232 3221	16	4443 5545	34	3231 3322	19
7	2222 3232	18	4433 3343	27	4222 2323	20	2132 3421	18	5544 4433	32	2122 3221	15
8	3322 3343	23	2122 2234	18	3433 2232	22	1222 2343	19	5343 4344	30	2221 3231	18
9	2232 3334	22	2222 3344	22	3344 3342	26	3222 3343	22	3534 4423	28	1221 2222	14
10	2323 3332	21	3322 3443	24	3222 3224	20	5443 4455	34	2222 3431	19	3322 3322	20
11	2222 3344	22	4423 2221	20	2233 3423	22	4334 3554	31	2223 3210	15	1123 2223	16
12	2222 3222	17	2121 3111	12	3223 2344	23	3333 3223	22	2222 3322	18	2222 3212	16
13	2122 3212	15	1021 1233	13	3223 3112	17	3232 3333	22	1243 4322	21	3332 3444	26
14	3223 3314	21	1122 2232	15	1123 3313	17	2323 3323	21	1223 3222	17	5566 4433	36
15	2322 2211	15	4322 3322	21	1223 3433	21	1222 2222	15	2332 3333	22	3333 4333	25
16	2112 3243	18	2333 3324	23	4434 4343	29	2122 1224	16	4444 4332	28	4446 3331	28
17	4323 3223	23	2233 *43	-	4332 3332	23	6675 7665	48	2333 3343	24	2112 2234	17
18	3332 2213	19	2132 2324	19	4112 2111	13	2354 5554	33	3334 3423	25	3333 4444	28
19	1122 1223	14	3332 3243	23	0121 2133	13	4343 5753	34	3433 2333	24	4433 4434	29
20	3332 1232	19	2322 2322	18	4322 2312	19	3344 4533	29	3434 3333	26	4343 4333	27
21	3222 4341	21	2212 1111	11	0334 2342	21	4343 3434	28	2222 3544	24	4433 3443	28
22	1221 2244	18	1112 2221	12	3433 4444	29	3322 3453	25	4354 3325	29	3333 2333	23
23	3223 4222	20	3222 ***4	-	4333 3335	27	3675 5653	40	3333 3454	28	3223 4343	24
24	1331 2113	15	3313 3466	29	2222 3334	21	3232 3785	33	5423 4444	30	3322 3323	21
25	3212 2112	14	6554 5545	39	2322 2214	18	6444 5654	38	4433 3544	30	2222 3222	17
26	1111 2110	8	2212 2224	17	3222 2244	21	3321 3322	19	4333 3343	26	2322 2355	24
27	0120 2211	9	1111 3211	11	4333 2355	28	0012 1325	14	3323 2344	24	3334 4422	25
28	1222 2333	18	2222 3433	21	3333 4565	32	4323 3433	25	4353 2234	26	2222 4534	24
29	3212 1212	14			5556 6555	42	2333 3442	24	4454 4544	34	3444 4423	28
30	2222 3221	16			4333 3565	32	2222 3341	19	2234 3222	20	4334 4333	27
31	0212 2111	10			4333 4334	27			2331 2233	19		

## MAGNETIC OBSERVATIONS, ABINGER 1940.

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THREE-HOUR-RANGE INDICES 'K' FOR THE YEARS 1929-1939												
Date	July		August		September		October		November		December	
	1939	Indices	Sum	Indices								
1	3234 3232	22	3222 2222	17	1222 2321	15	3322 2323	20	3223 3231	19	2333 2232	20
2	3332 3333	23	1221 2221	13	1222 2425	20	1122 2223	15	1222 2211	13	1121 2233	15
3	3544 6464	36	0021 2222	11	5544 4543	32	3243 5455	31	3122 3223	18	1111 1124	12
4	4333 5565	34	0212 2322	14	3312 3220	16	5533 4332	28	3132 2112	15	3221 2112	14
5	5555 6664	42	1133 2222	16	1213 2223	18	3223 3252	22	1123 3221	15	1111 2444	18
6	4333 2222	21	2122 2212	14	3222 3223	19	3533 3333	26	1122 2233	16	4232 3255	26
7	1112 2121	11	2222 3121	15	3222 3221	17	2223 4455	27	2212 2332	17	5534 5445	35
8	2112 3232	16	1111 1332	13	2114 2232	17	3322 2333	21	1111 3121	11	3442 3544	29
9	3122 2211	14	1122 2111	11	4343 3333	26	4363 5342	30	1222 2211	13	4233 4342	25
10	2222 3311	16	0224 3442	21	3332 4342	24	1122 3213	15	1212 2221	13	2122 3333	19
11	1223 5441	22	2122 4445	24	2222 3322	18	3233 3244	24	2321 2133	17	3222 2122	16
12	1234 5532	25	5665 4345	38	3333 2223	21	3221 2211	14	4213 3322	20	3122 2334	20
13	1221 2322	15	5333 3443	28	2223 3323	20	*454 4576	(40)	3544 3454	32	3222 3311	17
14	2345 5534	31	3432 2211	18	3323 3323	22	5555 5654	40	4433 3334	27	3111 2222	14
15	3232 3333	22	1121 2432	16	3223 2224	20	6653 4553	37	3222 2332	19	2222 2322	17
16	2434 4554	31	1333 6855	34	3212 3232	18	3333 3655	32	2111 2321	13	1212 1325	17
17	4433 4434	29	5433 3331	26	3443 5554	33	4444 4454	33	1122 2232	15	3222 2122	16
18	3322 2332	20	1232 2323	18	3332 2211	17	3334 3464	30	1122 2222	14	2121 1211	11
19	2222 2335	21	1233 3521	20	2344 3445	29	4433 3343	27	1113 3432	18	0111 1111	7
20	4544 5544	35	2223 3332	20	5443 3453	31	3223 1211	15	3311 1132	15	1121 2232	14
21	3314 6433	27	2123 3324	20	3223 3333	22	1133 3244	21	1112 2211	11	2243 4343	25
22	4434 3433	28	6544 5666	42	2233 3324	22	2222 2243	19	1011 2112	9	5332 4434	28
23	4232 3321	20	6655 5344	38	2222 2123	16	1232 4423	21	1222 2221	14	1322 2224	18
24	2232 4343	23	4232 4313	22	2332 3121	17	4222 2221	17	1112 3244	18	2233 2333	21
25	3443 2321	22	3322 4322	21	1233 3333	21	2222 2210	13	3432 2355	27	3212 3223	18
26	2554 5534	33	2223 3332	19	4533 3353	29	1122 1233	15	4333 3243	25	2312 2212	15
27	3332 3434	25	2223 4333	22	2221 2233	17	1122 2212	13	1323 2232	18	2313 3342	21
28	2233 2322	19	1123 3321	16	2222 2120	13	1123 3234	19	1212 2*21	(13)	1222 2333	18
29	2223 2331	18	4222 2121	16	0122 2211	11	3332 2242	21	2122 3323	18	3222 2434	22
30	1323 2311	16	1122 2432	17	1233 2243	20	4222 2232	19	1321 2232	16	4212 2322	18
31	2222 2222	16	1112 2321	13			3222 2221	16			1121 2211	11



**ROYAL OBSERVATORY, GREENWICH.**

**Results of  
Meteorological Observations**

**1940**

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER Mean of 24 Hourly Values (corrected & reduced to 30° 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	Of Radiation					Of the Earth 4 ft. below the surface	Highest in Sun's Rays	Lowest on the Grass			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value	Mean	Greatest	Least							
Jan. 1	in.	°	°	°	°	°	°	°	°	°	°	95	41.8	21.7	44.7	0.000	0.4	7.9
2	29.974	35.6	23.5	12.1	30.7	-7.9	30.3	29.7	1.0	2.3	0.0	95	40.8	17.2	44.5	0.000	5.9	7.9
3	29.894	32.6	25.3	7.3	28.4	-10.0	27.3	25.4	3.0	5.1	1.3	86	40.7	16.1	44.3	0.000	0.4	7.9
4	29.586	35.2	22.4	12.8	29.9	-8.4	28.8	26.8	3.1	6.4	1.6	87	42.5	27.4	44.3	0.000	1.1	8.0
5	29.563	38.4	32.4	6.0	35.8	-2.5	34.2	31.4	4.4	6.5	3.2	84	46.4	21.4	44.0	0.000	5.4	8.0
6	29.722	39.8	27.4	12.4	34.8	-3.4	33.6	31.5	3.3	5.3	0.0	87						
7	29.814	42.2	25.4	16.8	34.9	-3.2	34.3	33.2	1.7	3.3	0.0	94	42.2	21.2	43.8	0.017	0.0	8.0
8	29.800	50.0	42.0	8.0	46.2	+8.2	45.8	45.3	0.9	2.0	0.0	97	59.1	39.3	43.8	0.352	0.0	8.0
9	29.991	48.9	41.1	7.8	44.5	+6.6	43.3	41.9	2.6	5.4	0.8	90	51.8	33.8	43.7	0.022	3.1	8.1
10	30.330	41.9	31.0	10.9	35.6	-2.3	34.1	31.5	4.1	5.4	2.1	85	37.7	26.2	43.7	0.000	0.0	8.1
	30.467	33.7	27.3	6.4	30.1	-7.8	28.1	24.5	5.6	11.7	1.6	77	42.9	20.7	43.6	0.000	6.3	8.1
11	30.478	36.2	23.5	12.7	30.1	-7.8	28.4	25.4	4.7	10.2	2.5	80	48.1	17.9	43.8	0.000	5.8	8.2
12	30.403	37.1	25.9	11.2	30.7	-7.2	28.5	24.5	6.2	10.8	1.8	75	50.7	15.3	43.4	0.000	5.9	8.2
13	30.392	35.3	23.3	12.0	29.4	-8.6	28.2	26.1	3.3	7.0	0.0	86	43.5	15.2	43.2	0.000	1.8	8.2
14	30.243	32.2	24.3	7.9	29.6	-8.4	29.1	28.3	1.3	3.7	0.0	94	33.2	16.8	43.0	0.000	0.0	8.3
15	29.874	31.2	23.8	7.4	28.5	-9.6	28.0	27.2	1.3	2.1	0.0	94	31.3	20.0	42.8	0.000	0.0	8.3
16	29.605	32.8	21.9	10.9	28.9	-9.4	27.7	25.7	3.2	5.6	1.6	85	40.3	19.8	42.5	0.032	3.0	8.3
17	29.929	28.0	18.4	9.6	23.4	-15.1	22.3	19.8	3.6	6.9	1.9	84	40.7	15.2	42.3	0.000	2.0	8.4
18	29.918	32.4	18.2	14.2	25.0	-13.6	23.5	19.9	5.1	8.4	0.8	79	41.7	14.7	42.1	0.001	2.2	8.4
19	29.813	35.6	19.0	16.6	27.9	-10.8	26.8	24.9	3.0	9.3	0.2	86	58.8	17.0	41.9	0.000	1.9	8.5
20	30.014	27.8	12.4	15.4	20.1	-18.7	18.8	15.3	4.8	9.2	0.0	79	57.7	10.1	41.7	0.000	3.9	8.5
21	29.771	30.4	18.8	11.6	24.8	-14.0	23.3	19.7	5.1	7.5	0.8	79	33.5	18.8	41.6	0.050	0.0	8.6
22	29.708	33.3	26.3	7.0	30.5	-8.3	29.8	26.7	1.8	3.0	0.0	92	45.9	25.9	41.2	0.000	0.1	8.6
23	29.969	31.6	19.4	12.2	27.5	-11.4	27.2	26.7	0.8	5.0	0.6	96	38.5	17.0	41.1	0.000	0.0	8.6
24	30.022	36.9	19.6	17.3	29.4	-9.5	27.7	24.7	4.7	12.1	0.9	80	51.0	16.3	41.2	0.000	0.0	8.7
25	30.019	41.5	30.5	11.0	34.3	-4.8	32.2	28.5	5.8	13.2	1.3	79	57.9	25.6	40.8	0.000	4.3	8.7
26	29.861	36.6	32.2	4.4	33.6	-5.7	32.5	30.7	2.9	6.7	0.8	88	46.7	31.7	40.7	0.272	0.0	8.8
27	29.767	33.9	30.4	3.5	32.4	-7.1	32.0	31.2	1.2	1.7	0.0	96	36.0	31.3	40.3	0.971	0.0	8.9
28	29.863	30.4	28.6	1.8	29.6	-10.0	28.9	27.7	1.9	3.3	1.3	92	39.1	30.8	40.2	0.165	0.0	8.9
29	29.816	29.0	25.9	3.1	27.6	-12.1	26.8	25.4	2.2	3.6	1.2	90	40.9	26.3	40.1	0.218	0.0	8.9
30	29.569	31.0	25.4	5.6	27.6	-12.1	27.0	26.0	1.6	1.9	0.0	93	34.0	27.4	40.0	0.026	0.0	9.0
31	29.244	35.0	31.0	4.0	33.2	-6.5	32.6	31.6	1.6	1.9	0.0	94	38.9	30.2	40.0	0.096	0.0	9.1
Means	29.917	35.4	25.7	9.7	30.8	-7.8	29.7	27.7	3.1	6.0	0.8	87.2	43.7	22.2	42.4	2.222	1.7	8.4
No. of Col. for Ref.	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 29.917 in., being 0.116 in. higher than the average for the 65 years, 1841-1905.

#### TEMPERATURE OF THE AIR.

The highest in the month was 50°.0 on January 7; the lowest in the month was 12°.4 on January 20; and the range was 37°.6.

The mean of all the highest daily readings in the month was 35°.4, being 7°.7 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 25°.7, being 8°.5 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 9°.7, being 0°.8 greater than the average for the 65 years, 1841-1905.

The mean for the month was 30°.8, being 7°.8 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS				CLOUDS AND WEATHER								
	Polaris		δ URSAE MINORIS		OSLER'S				Robinson's	Horizontal Movement of the Air							
	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									
Jan. 1	hours	hours	hours	hours			lbs.	lbs.	miles								
2	10° 3	0° 75	10° 0	0° 72	Calm	E:ESE	1° 2	0° 05	209	c b f x	b f F f	b Ci f c	c b x				
3	13° 7	1° 00	13° 7	1° 00	ESE	E	0° 6	0° 05	243	b x m	b x m	b x m	b m x				
4	11° 8	0° 86	10° 8	0° 79	E	E	2° 0	0° 18	311	b m x	b x c Cist m	c Cist so-ha b m o	c m o				
5	4° 0	0° 29	3° 0	0° 22	E	E	1° 3	0° 12	277	b St m b c	b x f m	b Cist m	b m x F				
6	6° 8	0° 50	6° 4	0° 46	E	ENE:Calm	0° 0	0° 00	194	c b x m o							
7	0° 0	0° 00	0° 0	0° 00	Calm	Calm:SSE	0° 1	0° 00	159	FeFe x	FeFe	FeFe o f	o f d				
8	0° 0	0° 00	0° 0	0° 00	S:SSW	SSW:Calm	0° 0	0° 00	203	dd f	dd f c f	c f	c f m rr				
9	0° 0	0° 00	0° 0	0° 00	NNW	NNW	1° 1	0° 07	251	rrr o c m	b c Cist Prst m	c m c	c b x				
10	10° 0	0° 73	9° 4	0° 69	NNE:NE:ENE	ENE:E	1° 1	0° 14	301	c m o	b x m	b Cist y m o x	b x				
11	13° 8	1° 00	13° 8	1° 00	E:ESE	ESE:E	0° 5	0° 02	238	b x	b f m o x	b m x	b m o x				
12	13° 8	1° 00	13° 8	1° 00	Calm:NE	ENE:NE	1° 5	0° 10	263	b x	b x	b x f m o	b dc b m o				
13	13° 3	1° 00	13° 3	1° 00	NE	NE:ENE	0° 6	0° 06	268	b m o x	b f x	b f x	b f x				
14	0° 3	0° 03	0° 0	0° 00	ENE:Calm	Calm:NE	0° 0	0° 00	197	b f x	f F x	F f x	ffx				
15	2° 6	0° 20	1° 9	0° 14	WSW	SW:WSW	0° 0	0° 00	148	ffx	b f x	b f x	b f c x				
16	13° 1	0° 99	12° 7	0° 96	WSW:NNW	NNW:NNE	2° 7	0° 32	368	c b x c	c x m b	b c Nbst ss o b	bc s o b				
17	13° 3	1° 00	13° 3	1° 00	NNE:NNW	NNW:W	2° 0	0° 25	347	b x	b x f c Prst m o	b m o x	b m o x				
18	4° 8	0° 36	3° 7	0° 28	WSW	WSW:SW:S	0° 2	0° 01	272	b m o x	b f c Cist f so-ha x	b Ci Acu f	b f c s o c				
19	12° 9	0° 97	10° 9	0° 82	S	S:SE	1° 2	0° 05	255	c s o c b	b bc Prcu Acu m c Cist	c bc Stcu b	b Cist lu-ha				
20	12° 8	0° 98	12° 8	0° 97	ESE:Calm	Calm:NNE:N	0° 4	0° 03	213	b f	b f b Acu Ci	b c b	b				
21	0° 0	0° 00	0° 0	0° 00	N:NNW	N	2° 7	0° 30	318	b c b	b m c Acu Nbst s o	s o s o m o	s c				
22	0° 6	0° 04	0° 0	0° 00	N	N:Calm	3° 0	0° 27	299	c s o c	c St ff b f	c s o c	f b				
23	12° 7	0° 97	12° 2	0° 94	NNW:W	WSW:SSW	0° 1	0° 00	220	b	b m c Stcu f m o	c Frcu m o	c m o				
24	0° 0	0° 00	0° 0	0° 00	SSW:SW	SW	1° 4	0° 07	285	c	c Acu m b c m o	bc Acu Cist prhn y c	f c				
25	1° 0	0° 07	0° 5	0° 03	SSW:SSW	SSW:SSE	0° 3	0° 01	225	c							
26	0° 0	0° 00	0° 0	0° 00	SSE	SSE:Calm	1° 0	0° 03	196	c	c Acu Macu dodo	dodo rr rs s c	c				
27	0° 0	0° 00	0° 0	0° 00	ESE	ESE	3° 0	0° 27	345	c r o rr	rr Nbst m o ro	o Nbst irro s o s	ss				
28	0° 0	0° 00	0° 0	0° 00	ESE	ESE	1° 8	0° 28	388	ss s o	is o c Nbst is o	c r o s o	r o s o				
29	0° 0	0° 00	0° 0	0° 00	ESE	ESE	4° 5	0° 89	482	c ss	s c St	c Nbst	o s o s o				
30	0° 0	0° 00	0° 0	0° 00	ESE:E	E	1° 6	0° 23	360	s o s o	c Nbst is o	is o c St	r o s o				
31	0° 0	0° 00	0° 0	0° 00	E	ENE	0° 8	0° 14	309	c r o s o	c r o s o r o s o f c St do	Nbst dodo f	d o d o f o				
Means	6° 0	0° 44	5° 7	0° 42	..	..	..	0° 13	270								
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31				

The mean Temperature of Evaporation for the month was 29° 7, being 7° 5 lower than

The mean Temperature of the Dew Point for the month was 27° 7, being 7° 4 lower than

The mean Degree of Humidity for the month was 87° 2, being 0° 4 greater than

The mean Elastic Force of Vapour for the month was 0° 148 in., being 0° 057 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 5° 6.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0° 206. The maximum daily amount of Sunshine was 6° 3 hours on January 10.

The highest reading of the Solar Radiation Thermometer was 59° 1 on January 7; and the lowest reading of the Terrestrial Radiation Thermometer was 10° 1 on January 20.

The Proportions of Wind referred to the cardinal points were N.19, E.40, S.17, W.10, calm or nearly calm conditions, 14, 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 January 29. The mean daily Horizontal Movement of the Air for the month was 270 miles; the greatest daily value was 482 miles on January 29, and the least daily value was 148 miles on January 14.

Rain (0° 005 in. or over) fell on 11 days in the month, amounting to 2° 222 in., as measured by gauge No. 6 partly sunk below the ground; being 0° 341 in. greater than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	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 Sun- shine	Sun above Horizon	
		Of the Air				Of Evapo- ration	Of the Dew Point							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	Mean	Greatest	Least		Highest in Sun's Rays	Lowest on the Grass					
Feb. 1	in.	o	o	o	o	o	o	o	o	o	o	96	34°7	31°2	40°0	0°015	0°0	9°1	
2	29° 255	33° 6	31° 2	2° 4	32° 5	- 7° 1	32° 1	31° 3	1° 2	1° 6	0° 8	90	47° 9	30° 2	39° 9	0°003	0°0	9°2	
3	29° 566	32° 2	28° 9	3° 3	30° 5	- 9° 0	29° 6	28° 1	2° 4	4° 2	0° 7	92	42° 7	30° 1	40° 0	0°045	0°0	9°2	
4	29° 547	38° 9	29° 8	9° 1	33° 6	- 5° 9	32° 8	31° 4	2° 2	4° 4	0° 7	96	54° 6	35° 8	40° 1	0°187	0°0	9°3	
5	29° 309	44° 7	37° 4	7° 3	40° 8	+ 1° 3	40° 4	39° 8	1° 0	3° 1	0° 0	97	64° 4	35° 0	40° 1	0°000	0°0	9°3	
6	29° 609	47° 1	40° 4	6° 7	43° 3	+ 3° 7	42° 9	42° 4	0° 9	2° 0	0° 0	97	63° 7	33° 0	40° 0	0°000	0°0	9°4	
7	29° 805	45° 6	37° 7	7° 9	41° 6	+ 2° 0	41° 0	40° 3	1° 3	2° 6	0° 5	95	54° 8	38° 1	40° 2	0°094	0°0	9°4	
8	29° 561	49° 7	40° 1	9° 6	44° 8	+ 5° 3	43° 9	42° 9	1° 9	2° 9	0° 0	93	42° 0	33° 0	40° 3	0°035	0°0	9°5	
9	29° 764	45° 6	33° 5	12° 1	39° 4	+ 0° 1	38° 4	36° 9	2° 5	3° 1	0° 5	91	33° 0	26° 9	40° 5	0°000	0°0	9°6	
10	29° 781	33° 5	29° 0	4° 5	31° 1	- 8° 0	30° 8	30° 3	0° 8	1° 8	0° 0	97	75° 8	20° 0	40° 7	0°000	6°1	9°6	
11	29° 897	33° 2	24° 8	8° 4	29° 2	- 9° 7	28° 6	27° 6	1° 6	4° 7	0° 0	93	47° 5	18° 1	40° 7	0°000	0°0	9°7	
12	29° 834	35° 5	22° 3	13° 2	29° 8	- 9° 0	27° 6	23° 5	6° 3	12° 1	0° 0	75	46° 0	18° 0	40° 7	0°005	0°7	9°7	
13	30° 028	30° 0	21° 6	8° 4	26° 0	- 12° 8	24° 8	22° 2	3° 8	8° 9	1° 0	84	68° 1	21° 1	40° 5	0°013	0°8	9°8	
14	30° 073	31° 8	25° 0	6° 8	29° 3	- 9° 7	28° 3	26° 8	2° 7	6° 4	1° 0	88	64° 2	25° 0	40° 3	0°013	3°7	9°9	
15	29° 963	29° 0	23° 7	5° 3	27° 5	- 11° 8	25° 5	21° 2	6° 3	9° 7	3° 0	75	35° 8	26° 5	40° 2	0°000	0°0	9°9	
16	29° 959	31° 8	28° 5	3° 3	30° 2	- 9° 2	28° 9	26° 7	3° 5	4° 9	2° 7	85	64° 8	19° 5	40° 1	0°044	0°6	10°0	
17	29° 756	37° 3	25° 0	12° 3	32° 2	- 7° 3	30° 3	27° 2	5° 0	11° 8	0° 0	80	48° 7	25° 8	40° 0	0°093	0°0	10°0	
18	29° 333	32° 8	28° 2	4° 6	30° 7	- 8° 9	29° 6	27° 8	2° 9	3° 4	0° 0	87	48° 7	20° 2	39° 8	0°142	0°0	10°1	
19	29° 690	35° 3	23° 5	11° 8	30° 9	- 8° 6	30° 0	28° 5	2° 4	7° 6	0° 0	89	48° 7	32° 9	39° 8	0°326	0°0	10°2	
20	29° 559	44° 8	33° 8	11° 0	36° 5	- 3° 0	36° 2	35° 8	0° 7	1° 8	0° 0	97	66° 6	31° 1	39° 8	0°131	0°0	10°2	
21	29° 925	49° 0	34° 5	14° 5	40° 8	+ 1° 3	40° 3	39° 5	1° 3	4° 0	0° 0	95	67° 0	32° 1	39° 8	0°010	0°0	10°3	
22	29° 935	50° 0	40° 7	9° 3	45° 5	+ 5° 9	44° 6	43° 5	2° 0	4° 8	0° 0	93	68° 6	28° 8	40° 0	0°006*	0°4	10°4	
23	29° 751	52° 9	37° 4	15° 5	45° 8	+ 6° 1	44° 4	42° 6	3° 2	7° 2	0° 4	89	62° 9	45° 0	40° 2	0°050	0°0	10°5	
24	29° 655	52° 0	47° 5	4° 5	49° 7	+ 9° 9	48° 2	46° 5	3° 2	4° 0	1° 9	89	95° 8	35° 0	40° 4	0°000	6°3	10°5	
25	29° 685	52° 7	40° 1	12° 6	46° 9	+ 6° 9	43° 7	39° 7	7° 2	13° 9	2° 4	75	66° 2	34° 2	40° 8	0°000	0°0	10°6	
26	29° 850	49° 6	37° 1	12° 5	44° 5	+ 4° 4	42° 4	39° 6	4° 9	9° 4	0° 2	83	87° 2	31° 0	41° 1	0°011	2°5	10°7	
27	29° 674	52° 9	35° 5	17° 4	42° 2	+ 2° 0	41° 0	39° 4	2° 8	8° 8	0° 0	90	88° 5	31° 0	41° 3	0°191	0°9	10°7	
28	29° 425	55° 8	46° 6	9° 2	50° 2	+ 9° 9	48° 7	47° 1	3° 1	7° 3	0° 4	89	64° 3	39° 6	41° 6	0°000	0°0	10°8	
29	29° 481	50° 9	41° 6	9° 3	49° 4	+ 9° 1	47° 4	45° 2	4° 2	5° 3	1° 9	86	48° 4	32° 9	41° 7	0°018	0°0	10°9	
	Means	29° 715	42° 1	33° 1	9° 0	37° 7	- 1° 9	36° 5	34° 7	3° 0	5° 9	0° 7	88° 5	58° 7	30° 2	40° 4	Sum 1°429	0° 8	9° 9
No. of Col. for Ref.		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° 715 in., being 0°094 in. lower than the average for the 65 years, 1841-1905.

\* Rainfall (Column 16). The amount entered on February 22 is derived from dew.

#### TEMPERATURE OF THE AIR.

The highest in the month was 55° 8 on February 27; the lowest in the month was 21° 6 on February 12; and the range was 34° 2.

The mean of all the highest daily readings in the month was 42° 1, being 2° 8 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 33° 1, being 1° 6 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 9° 0, being 1° 2 less than the average for the 65 years, 1841-1905.

The mean for the month was 37° 7, being 1° 9 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					Robin- son's	CLOUDS AND WEATHER			
	Polaris		δ URSAE MINORIS		OSLER'S			Pressure on the Square Foot						
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		A.M.	P.M.	Greatest	Mean of 24 Hours	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>
Feb. 1	hours	0' 0	0' 00	0' 0	0' 00	ENE:NNE	NNE	lbs.	lbs.	miles				
2	0' 0	0' 00	0' 0	0' 00	Calm:NNE	E:ENE	0' 5	0' 01	232	o f d o d o Nbst	d o d o f	o s o s o f	o m	
3	1' 9	0' 15	0' 9	0' 07	ENE:E	E:ESE	0' 0	0' 00	208	s o s o f	c o m	c b c r o	c b c m f	
4	0' 0	0' 00	0' 0	0' 00	ESE:S	SSW	0' 7	0' 05	257	o r d d o f	o d d o f	r r c m	c f	
5	0' 0	0' 00	0' 0	0' 00	SW	Calm	0' 4	0' 02	245	r r r o d o d o	d o c r r o m	c m f		
6	0' 0	0' 00	0' 0	0' 00	SW:Calm	S:SSE	0' 0	0' 00	181	c m f	c St m f			
7	0' 0	0' 00	0' 0	0' 00	SSE	SSW:SSW	0' 0	0' 00	195	c f	c Stcu f c	c Stcu	c	
8	0' 0	0' 00	0' 0	0' 00	NW:NNW	NNW:NE:ENE	2' 8	0' 19	334	c r r o r o c	c r r o r o c Nbst i r o	c r o	ro do c r	
9	3' 5	0' 28	3' 1	0' 25	ENE	ENE	2' 8	0' 17	338	c id	c ido mo	c NBst ido m o	o do m o	
10	9' 8	0' 82	8' 2	0' 68	ENE:E	E:Calm	3' 0	0' 66	449	c ido m o	c St ido m o	c ido m o	c ido c m o	
11	1' 6	0' 14	1' 6	0' 14	Calm	N:NE	0' 4	0' 04	191	c b c x m	c Stcu m f	c Frcu f	c f	
12	4' 4	0' 36	4' 2	0' 35	ENE:NE	NE:NNW	1' 4	0' 13	302	c b f	c Acu s o	s o s o bc Frcu	b c b c	
13	1' 7	0' 14	1' 6	0' 13	NNW:N	NNE:N	2' 0	0' 17	301	c s o ss c	c Nbst s o s o m c Frcu Stcu	c Stcu Nbst s o c	c b	
14	0' 0	0' 00	0' 0	0' 00	NE:ENE	NNE:N	0' 7	0' 07	263	c ps o bc c s s o	s o s c bc Acu Frcu m	bc Frcu c	c	
15	3' 0	0' 25	2' 8	0' 24	NNE:Calm	NNW:Calm	0' 3	0' 02	187	c	c St m o f	o St f	c	
16	0' 0	0' 00	0' 0	0' 00	Calm:SSE	SSE	1' 9	0' 11	229	c b x c	c m b c m o c	c Ast Frst m o	o m o s o s s	
17	5' 1	0' 45	5' 1	0' 45	SE:ESE	ENE:NNE	2' 9	0' 23	314	ss s o s o c m o	c St 1 s o m o	c m o	c b m o	
18	0' 0	0' 00	0' 0	0' 00	Calm:SSW	S:Calm	2' 5	0' 08	217	b c m o	c s o m o	c do rr m o	c do rr m o	
19	0' 0	0' 00	0' 0	0' 00	Calm:NE	Calm:E	0' 5	0' 01	165	rr dd	dd f c St m	dd f m	dd f m	
20	6' 0	0' 52	5' 3	0' 46	Calm	SSW	0' 3	0' 02	195	dd f m	dd c Ast f	c f m o	c lu-ha b	
21	1' 3	0' 11	1' 3	0' 11	SSW	SSW	0' 4	0' 04	235	b c d o c	c Frcu Acu	c f w	c b b c lu-ha w	
22	7' 2	0' 62	5' 1	0' 45	Calm:S	SSW	0' 7	0' 07	236	c m w	c Acu m Frst m o	c	c	
23	6' 0	0' 52	6' 0	0' 52	SW:SSW	SW	2' 5	0' 15	306	c lu-ha d	c Stcu r o c	Stcu r o c	c r o r c	
24	0' 0	0' 00	0' 0	0' 00	WSW:W	W:Calm	2' 0	0' 15	301	c b	b Frst bc Acu Frcu	bc c Frcu Stcu	c	
25	0' 0	0' 00	0' 0	0' 00	Calm	ESE:ENE	0' 2	0' 00	151	c	c Stcu m	c m f	c m f	
26	0' 8	0' 07	0' 6	0' 05	Calm	SSW:S	1' 2	0' 07	207	c m f w	c Frcu f b m	b m c	c do	
27	1' 5	0' 14	1' 0	0' 09	S:SSW	SSW	4' 5	0' 27	327	d o d o c d o c	c idoc Stbc c Frcu Acu	c r	rrr o c b c	
28	0' 0	0' 00	0' 0	0' 00	SSW:SW	SW:N	3' 3	0' 57	397	c r o r o c	c Nbst ido	c d ido c	c ir o	
29	0' 0	0' 00	0' 0	0' 00	NNE:NE	NE:ENE	2' 8	0' 35	367	c d o d o c	c Nbst			
Means	1' 9	0' 16	1' 6	0' 14	..	..	..	0' 14	264					
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31	

The mean Temperature of Evaporation for the month was 36°.5, being 1°.2 lower than

The mean Temperature of the Dew Point for the month was 34°.7, being 0°.3 lower than

The mean Degree of Humidity for the month was 88.5, being 4.9 greater than

The mean Elastic Force of Vapour for the month was 0.201 in., being 0.003 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 8.9.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.076. The maximum daily amount of Sunshine was 6.3 hours on February 24.

The highest reading of the Solar Radiation Thermometer was 95°.8 on February 24; and the lowest reading of the Terrestrial Radiation Thermometer was 18.0 on February 12.

The Proportions of Wind referred to the cardinal points were N.19, E.22, S.26, W.12, calm or nearly calm conditions, 21, 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 February 27. The mean daily Horizontal Movement of the Air for the month was 264 miles; the greatest daily value was 449 miles on February 9, and the least daily value was 151 miles on February 25.

Rain (0.005 in. or over) fell on 18 days in the month, amounting to 1.429 in. as measured by gauge No.6 partly sunk below the ground; being 0.051 in. less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER Mean of 24 Hourly Values (corrected to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			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	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	Mean	Greatest	Least	Degree of Humidity (Saturation = 100)							
Mar. 1	in.	30° 348	41° 3	33° 4	7° 9	37° 0	- 3° 4	32° 6	24° 3	12° 7	25° 3	6° 8	60	96° 3	30° 2	42° 0	0° 000	9° 3	10° 9
2	30° 347	41° 7	31° 6	10° 1	36° 2	- 4° 2	31° 6	23° 8	12° 4	28° 7	3° 2	57	97° 7	26° 2	42° 1	0° 000	9° 7	11° 0	
3	30° 274	47° 6	28° 0	19° 6	36° 3	- 4° 2	32° 7	26° 3	10° 0	21° 6	1° 3	84	93° 5	23° 6	42° 3	0° 000	8° 6	11° 0	
4	30° 065	49° 9	32° 1	17° 8	40° 9	+ 0° 2	38° 3	34° 2	6° 7	10° 2	3° 7	77	74° 4	24° 9	42° 0	0° 000	2° 6	11° 1	
5	30° 039	43° 3	33° 6	9° 7	39° 8	- 1° 1	34° 4	24° 5	15° 3	21° 6	7° 2	52	99° 9	26° 4	42° 0	0° 000	6° 0	11° 2	
6	30° 116	43° 7	29° 9	13° 8	36° 7	- 4° 3	33° 1	26° 6	10° 1	17° 2	0° 5	65	94° 1	21° 0	41° 9	0° 000	2° 7	11° 2	
7	30° 058	42° 0	24° 3	17° 7	32° 3	- 8° 7	29° 7	25° 3	7° 0	18° 9	0° 0	72	70° 4	19° 1	41° 9	0° 000	1° 6	11° 3	
8	30° 017	47° 7	26° 3	21° 4	36° 8	- 4° 3	33° 4	27° 3	9° 5	16° 8	2° 8	87	69° 4	18° 8	41° 7	0° 000	1° 1	11° 3	
9	29° 995	51° 7	32° 4	19° 3	42° 1	+ 1° 1	37° 9	31° 1	11° 0	22° 7	0° 6	65	100° 5	23° 6	41° 8	0° 000	4° 9	11° 4	
10	29° 892	58° 7	36° 6	22° 1	46° 5	+ 5° 6	40° 7	31° 8	14° 7	28° 0	1° 9	57	102° 2	30° 1	41° 7	0° 000	3° 1	11° 5	
11	29° 645	63° 1	42° 4	20° 7	50° 1	+ 9° 1	45° 4	39° 6	10° 5	27° 3	2° 7	67	108° 7	34° 0	41° 5	0° 042	4° 3	11° 6	
12	29° 125	52° 3	45° 1	7° 2	49° 1	+ 8° 0	47° 0	44° 7	4° 4	8° 0	1° 6	85	90° 2	36° 8	41° 8	0° 045	0° 1	11° 6	
13	28° 939	56° 5	43° 9	12° 6	50° 1	+ 8° 8	47° 9	45° 5	4° 6	10° 4	1° 2	84	101° 6	42° 9	41° 9	0° 425	0° 9	11° 7	
14	29° 184	44° 2	31° 4	12° 8	35° 5	- 6° 0	34° 5	32° 7	2° 8	6° 0	1° 1	90	59° 9	24° 7	42° 1	0° 927	0° 1	11° 8	
15	29° 701	48° 7	27° 6	21° 1	39° 4	- 2° 3	35° 9	30° 1	9° 3	18° 8	1° 1	68	99° 7	23° 3	42° 3	0° 023	5° 7	11° 8	
16	29° 960	49° 3	35° 5	13° 8	42° 3	+ 0° 4	40° 1	36° 9	5° 4	8° 2	0° 7	81	83° 8	30° 1	42° 3	0° 000	0° 7	11° 9	
17	29° 706	52° 9	41° 6	11° 3	47° 0	+ 5° 0	46° 0	44° 8	2° 2	5° 4	0° 2	92	64° 4	39° 2	42° 3	0° 498	0° 0	12° 0	
18	29° 565	61° 3	51° 5	9° 8	55° 2	+ 13° 2	52° 8	50° 6	4° 6	10° 0	0° 0	85	90° 2	43° 1	42° 5	0° 271	0° 4	12° 0	
19	29° 382	54° 0	41° 9	12° 1	48° 6	+ 6° 7	44° 1	38° 3	10° 3	17° 1	4° 8	68	103° 2	37° 6	42° 8	0° 102	6° 0	12° 1	
20	29° 611	54° 7	40° 6	14° 1	47° 2	+ 5° 3	42° 3	35° 3	11° 9	26° 0	3° 8	63	110° 2	35° 2	43° 1	0° 000	8° 5	12° 1	
21	29° 790	56° 1	40° 5	15° 6	47° 9	+ 6° 0	45° 7	43° 2	4° 7	8° 5	1° 7	83	86° 7	34° 1	43° 3	0° 000	0° 4	12° 2	
22	29° 737	53° 3	45° 0	8° 3	48° 3	+ 6° 3	45° 6	42° 4	5° 9	11° 1	3° 2	80	75° 2	38° 9	43° 7	0° 000	0° 0	12° 3	
23	29° 661	57° 3	44° 9	12° 4	49° 6	+ 7° 4	46° 9	43° 8	5° 8	13° 6	2° 2	80	117° 7	38° 4	43° 7	0° 050	3° 9	12° 3	
24	29° 575	58° 2	39° 9	18° 3	48° 4	+ 6° 0	46° 0	43° 3	5° 1	14° 5	0° 0	82	100° 6	32° 0	43° 8	0° 000	2° 2	12° 4	
25	29° 294	56° 0	42° 1	13° 9	48° 8	+ 6° 1	45° 3	41° 0	7° 8	18° 8	0° 2	74	101° 7	36° 2	44° 0	0° 042	2° 3	12° 5	
26	29° 126	45° 8	40° 3	5° 5	41° 7	- 1° 3	40° 8	39° 7	2° 0	5° 7	1° 1	92	45° 9	37° 1	44° 1	1° 328	0° 0	12° 6	
27	29° 531	47° 8	36° 8	11° 0	42° 0	- 1° 3	36° 9	28° 2	13° 8	25° 1	4° 8	57	98° 2	31° 0	44° 2	0° 000	8° 3	12° 6	
28	29° 772	43° 1	33° 1	10° 0	37° 9	- 5° 8	32° 4	21° 7	16° 2	28° 5	7° 8	49	98° 1	22° 7	44° 3	0° 000	9° 7	12° 7	
29	29° 754	46° 2	25° 6	20° 6	38° 0	- 6° 1	34° 9	29° 7	8° 3	25° 1	1° 8	71	72° 5	18° 8	44° 2	0° 043	0° 3	12° 7	
30	29° 844	54° 9	42° 0	12° 9	47° 5	+ 3° 0	43° 0	37° 0	10° 5	16° 9	3° 7	67	104° 9	34° 8	44° 2	0° 000	8° 8	12° 8	
31	29° 977	54° 6	41° 4	13° 2	49° 2	+ 4° 3	45° 7	41° 5	7° 7	10° 7	1° 2	74	97° 3	33° 3	44° 0	0° 000	2° 3	12° 9	
Means	29° 742	50° 9	36° 8	14° 1	43° 5	+ 1° 6	40° 1	35° 0	8° 5	17° 0	2° 4	71° 9	90° 6	30° 6	42° 8	Sum 3° 796	3° 7	11° 9 .	
No. of Col. for Ref.	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° 742 in., being 0° 011 in. lower than the average for the 65 years, 1841-1905.

#### TEMPERATURE OF THE AIR.

The highest in the month was 63° 1 on March 11; the lowest in the month was 24° 3 on March 7; and the range was 38° 8.

The mean of all the highest daily readings in the month was 50° 9, being 1° 7 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 36° 8, being 1° 2 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 14° 1, being 0° 5 greater than the average for the 65 years, 1841-1905.

The mean for the month was 43° 5, being 1° 6 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	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	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					
Mar. 1	hours	hours	hours	hours	ENE:E	E:ENE	lbs.	lbs.	miles				
2	1 <sup>1</sup> 7	0 <sup>1</sup> 16	1 <sup>1</sup> 5	0 <sup>1</sup> 13	E:ENE	ENE	6 <sup>6</sup>	1 <sup>44</sup>	487	c b y	b bc y	b bc c	
3	10 <sup>6</sup>	0 <sup>9</sup> 8	10 <sup>0</sup>	0 <sup>9</sup> 3	E:ENE	ENE	4 <sup>5</sup>	0 <sup>78</sup>	410	c d o c b	bc Ci y	bc y b	
4	9 <sup>8</sup>	0 <sup>9</sup> 1	6 <sup>7</sup>	0 <sup>6</sup> 3	NE:ENE	Calm	0 <sup>3</sup>	0 <sup>02</sup>	187	b x	b x f b y	b m f x	
5	3 <sup>0</sup>	0 <sup>28</sup>	2 <sup>9</sup>	0 <sup>27</sup>	WSW:W	W:NNW	3 <sup>6</sup>	0 <sup>17</sup>	281	b x c m f	c St m f	b c b c	
	6 <sup>5</sup>	0 <sup>60</sup>	6 <sup>5</sup>	0 <sup>60</sup>	N	N	2 <sup>2</sup>	0 <sup>31</sup>	319	c	Stcu b Cist m	c y b	
6	10 <sup>3</sup>	0 <sup>96</sup>	10 <sup>0</sup>	0 <sup>93</sup>	N	N:Calm	1 <sup>2</sup>	0 <sup>14</sup>	253	b bc c m o	c bc c Frcu A cu m o	c b m o x	
7	9 <sup>8</sup>	0 <sup>91</sup>	6 <sup>9</sup>	0 <sup>64</sup>	Calm	Calm	0 <sup>0</sup>	0 <sup>00</sup>	120	b x m	b x f c Stcu zo y	c b f x	
8	8 <sup>6</sup>	0 <sup>80</sup>	7 <sup>9</sup>	0 <sup>74</sup>	SW:Calm	SW	0 <sup>2</sup>	0 <sup>02</sup>	198	b x	c Ast f c y	b	
9	4 <sup>9</sup>	0 <sup>47</sup>	2 <sup>7</sup>	0 <sup>25</sup>	WSW	WSW	1 <sup>3</sup>	0 <sup>13</sup>	285	b m bc Cist Frcu y	bc c Acu Ast y	c y b bc	
10	3 <sup>7</sup>	0 <sup>36</sup>	1 <sup>8</sup>	0 <sup>18</sup>	WSW:Calm:SSW	SW	0 <sup>8</sup>	0 <sup>06</sup>	234	b bc c	c Cist so-ha m c Stcu y	c b c b	
11	7 <sup>7</sup>	0 <sup>77</sup>	5 <sup>8</sup>	0 <sup>56</sup>	SW	SSW	1 <sup>3</sup>	0 <sup>09</sup>	267	b c b	b c Nb st rr o c Cist pr hm y	b c b c	
12	0 <sup>7</sup>	0 <sup>06</sup>	0 <sup>4</sup>	0 <sup>04</sup>	SSW	SSW:SW	3 <sup>5</sup>	0 <sup>44</sup>	394	c b bc	c Stcu A cu Nb st do	r o c d o d o r	
13	0 <sup>5</sup>	0 <sup>05</sup>	0 <sup>2</sup>	0 <sup>02</sup>	SSW:SW	SW:WSW	2 <sup>1</sup>	0 <sup>24</sup>	338	rr c	c Acu so-hu	c r	
14	9 <sup>4</sup>	0 <sup>92</sup>	8 <sup>0</sup>	0 <sup>78</sup>	ENE:NE	NNW:SW	3 <sup>0</sup>	0 <sup>20</sup>	333	rr R rr o	R o R s ss So Nb st	c b x	
15	6 <sup>3</sup>	0 <sup>62</sup>	5 <sup>9</sup>	0 <sup>58</sup>	SW:WSW	WSW:W	3 <sup>3</sup>	0 <sup>32</sup>	335	b x	b dc y Cist Frcu so-ha	d o r o c b c	
16	0 <sup>0</sup>	0 <sup>00</sup>	0 <sup>0</sup>	0 <sup>00</sup>	WSW	SW:SSW	1 <sup>1</sup>	0 <sup>05</sup>	247	bc b c	c f c Ast	c r o	
17	0 <sup>0</sup>	0 <sup>00</sup>	0 <sup>0</sup>	0 <sup>00</sup>	S:SSE	SSW	2 <sup>0</sup>	0 <sup>15</sup>	291	r o r o dd m o	d rr m o r o	r o r o rr c	
18	3 <sup>6</sup>	0 <sup>37</sup>	2 <sup>7</sup>	0 <sup>28</sup>	SW	SSW	2 <sup>2</sup>	0 <sup>26</sup>	348	c r r o c	c Nb st r r o c so-ha c	c b c ir	
19	7 <sup>4</sup>	0 <sup>76</sup>	6 <sup>5</sup>	0 <sup>67</sup>	SW	SW:WSW	8 <sup>5</sup>	1 <sup>41</sup>	533	bc i r	bc i r c A cu p q Nb st	c p t c y q	
20	8 <sup>7</sup>	0 <sup>89</sup>	8 <sup>3</sup>	0 <sup>85</sup>	SW:WSW	W:WSW	6 <sup>3</sup>	0 <sup>92</sup>	474	c b	b A cu bc Nb st y	bc p bc y b	
21	3 <sup>3</sup>	0 <sup>34</sup>	2 <sup>6</sup>	0 <sup>27</sup>	WSW	WSW:SW	2 <sup>0</sup>	0 <sup>20</sup>	328	b	b c Nb st	c b c	
22	0 <sup>4</sup>	0 <sup>04</sup>	0 <sup>3</sup>	0 <sup>03</sup>	SW:S	SSW:SW	0 <sup>8</sup>	0 <sup>03</sup>	232	c	c Stcu c Ast Nb st r o	c	
23	2 <sup>3</sup>	0 <sup>25</sup>	1 <sup>4</sup>	0 <sup>15</sup>	WSW	SS:SSW	2 <sup>1</sup>	0 <sup>19</sup>	310	c r c	c r i r o c	i r o c	
24	4 <sup>8</sup>	0 <sup>52</sup>	3 <sup>5</sup>	0 <sup>38</sup>	Calm:SW	SSW:Calm	0 <sup>2</sup>	0 <sup>01</sup>	192	c m o	c Frcu m o	c Aurora b c c m o	
25	0 <sup>0</sup>	0 <sup>00</sup>	0 <sup>0</sup>	0 <sup>00</sup>	E:ENE	E:ENE	2 <sup>0</sup>	0 <sup>19</sup>	298	c m o	c b bc Ast A cu m o c y	r o c r o r o	
26	..	..	..	..	NE:NNE	NNE	3 <sup>5</sup>	0 <sup>48</sup>	387	r o r o rr	rr Nb st	c	
27	7 <sup>0</sup>	0 <sup>76</sup>	6 <sup>7</sup>	0 <sup>72</sup>	N:NNW	NNW:NN	3 <sup>3</sup>	0 <sup>45</sup>	390	c b c	c Frcu y	bc y b	
28	9 <sup>3</sup>	1 <sup>00</sup>	8 <sup>3</sup>	0 <sup>89</sup>	NW:NNW	NNW:NN	4 <sup>5</sup>	0 <sup>60</sup>	385	b c b	b c Frcu y	bc b y x	
29	0 <sup>0</sup>	0 <sup>00</sup>	0 <sup>0</sup>	0 <sup>00</sup>	Calm:SSW	SSW:W	4 <sup>1</sup>	0 <sup>39</sup>	330	b x m	b c Ast y	c i r o d	
30	7 <sup>3</sup>	0 <sup>84</sup>	6 <sup>8</sup>	0 <sup>78</sup>	NW	NW:W:SSW	5 <sup>2</sup>	0 <sup>63</sup>	376	c	c bc b Frcu y	b c y	
31	1 <sup>1</sup>	0 <sup>12</sup>	0 <sup>5</sup>	0 <sup>05</sup>	SSW:SW	SSW	4 <sup>0</sup>	0 <sup>65</sup>	401	b c b c	c Stcu	c b c	
Means	5 <sup>0</sup>	0 <sup>49</sup>	4 <sup>2</sup>	0 <sup>41</sup>	..	..	..	0 <sup>35</sup>	321				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean Temperature of Evaporation for the month was 40°.1, being 0°.7 higher than

The mean Temperature of the Dew Point for the month was 35°.0, being 0°.6 lower than

The mean Degree of Humidity for the month was 71.9, being 6.2 less than

The mean Elastic Force of Vapour for the month was 0.204 in., being 0.005 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 6.4.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.311. The maximum daily amount of Sunshine was 9.7 hours on March 2 and 28.

The highest reading of the Solar Radiation Thermometer was 117°.7 on March 23; and the lowest reading of the Terrestrial Radiation Thermometer was 18°.8 on March 8 and 29.

The Proportions of Wind referred to the cardinal points were N.18, E.11, S.29, W.33, calm or nearly calm conditions, 9, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 8.5 lbs. on the square foot on March 19. The mean daily Horizontal Movement of the Air for the month was 321 miles; the greatest daily value was 533 miles on March 19, and the least daily value was 120 miles on March 7.

Rain (0.005 in. or over) fell on 12 days in the month, amounting to 3.796 in., as measured by gauge No.6 partly sunk below the ground; being 2.276 in. greater than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER  Mean of 24 Hourly Values (Corrected and reduced to 32° Fahrenheit)	TEMPERATURE								Difference between the Air Temperature and Dew Point Temperature			TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground	Daily Dura- tion of Sun- shine	Sun above Horizon
		Of the Air				Of Evapo- ration	Of the Dew Point							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	Mean	Great- est	Least	Degree of Humidity (Saturation = 100)	Highest in Sun's Ray's	Lowest on the Grass				
Apr. 1	in.	o	o	o	o	o	o	o	o	o	o	o	o	o	o	in.	hours	hours
2	29° 725	61° 4	43° 5	17° 9	51° 8	+6° 5	47° 3	42° 1	9° 7	14° 9	3° 9	69	118° 6	34° 2	44° 1	0° 000	5° 5	12° 9
3	29° 664	56° 7	40° 0	16° 7	46° 9	+1° 2	43° 7	39° 7	7° 2	15° 8	2° 0	75	120° 9	33° 6	44° 2	0° 029	3° 4	13° 0
4	29° 479	52° 3	42° 3	10° 0	46° 6	+0° 6	44° 0	40° 8	5° 8	13° 5	0° 4	80	93° 2	36° 6	44° 3	0° 038	1° 7	13° 1
5	29° 570	56° 6	42° 6	14° 0	49° 5	+3° 3	46° 1	42° 0	7° 5	16° 4	0° 6	75	89° 5	37° 0	44° 6	0° 171	2° 6	13° 1
6	29° 927	47° 7	38° 0	9° 7	44° 1	-2° 2	39° 8	33° 1	11° 0	13° 4	6° 0	66	79° 6	35° 1	44° 7	0° 000	2° 8	13° 2
7	30° 222	47° 4	32° 0	15° 4	39° 4	-6° 9	35° 7	29° 5	9° 9	13° 9	0° 9	66	110° 6	23° 8	44° 7	0° 000	6° 6	13° 3
8	30° 083	54° 7	28° 8	25° 9	41° 6	-4° 7	38° 3	33° 1	8° 5	18° 6	0° 0	72	108° 1	23° 3	44° 8	0° 000	5° 0	13° 3
9	29° 994	50° 9	39° 6	11° 3	44° 7	-1° 4	41° 7	37° 5	7° 2	11° 0	0° 9	76	91° 6	31° 9	44° 7	0° 005	0° 9	13° 4
10	30° 092	50° 1	39° 2	10° 9	44° 4	-1° 6	38° 8	29° 8	14° 6	20° 3	6° 4	55	105° 1	36° 6	44° 7	0° 000	3° 5	13° 4
11	30° 233	45° 6	35° 9	9° 7	41° 0	-4° 9	36° 8	29° 8	11° 2	18° 9	3° 8	64	102° 9	27° 1	44° 6	0° 000	1° 8	13° 5
12	30° 274	55° 7	28° 3	27° 4	44° 1	-1° 7	38° 4	29° 1	15° 0	28° 1	2° 1	55	100° 2	20° 6	44° 7	0° 000	7° 4	13° 6
13	29° 929	54° 8	41° 0	13° 8	47° 5	+1° 6	43° 0	37° 0	10° 5	21° 1	1° 9	67	99° 1	33° 1	44° 7	0° 024	0° 6	13° 7
14	29° 868	52° 7	38° 2	14° 5	45° 3	-0° 8	40° 9	34° 5	10° 8	18° 1	5° 2	66	103° 6	30° 6	44° 7	0° 000	2° 0	13° 7
15	29° 670	54° 9	45° 5	9° 4	49° 2	+2° 8	43° 5	35° 7	13° 5	23° 1	6° 7	60	104° 5	41° 2	44° 9	0° 007	2° 2	13° 8
16	29° 262	52° 8	38° 6	18° 2	45° 3	-1° 5	40° 5	33° 3	12° 0	22° 0	3° 6	62	112° 5	30° 7	44° 9	0° 183	6° 4	13° 8
17	29° 271	51° 0	33° 3	17° 7	39° 7	-7° 5	36° 4	30° 9	8° 8	24° 1	1° 4	70	119° 1	28° 4	45° 1	0° 177	6° 9	13° 9
18	29° 410	54° 2	29° 5	24° 7	40° 9	-6° 7	36° 5	29° 0	11° 9	21° 9	3° 3	62	115° 5	23° 0	45° 1	0° 000	9° 9	14° 0
19	29° 336	51° 0	33° 3	17° 7	42° 4	-5° 6	40° 4	37° 5	4° 9	12° 7	1° 4	83	83° 6	23° 8	45° 1	0° 251	0° 0	14° 0
20	29° 547	56° 5	36° 9	19° 6	46° 9	-1° 4	43° 3	38° 7	8° 2	22° 3	2° 7	72	113° 5	36° 3	45° 2	0° 100	5° 8	14° 1
21	29° 769	62° 6	45° 3	17° 3	55° 2	+4° 7	49° 4	45° 5	7° 7	16° 2	0° 6	75	87° 1	40° 0	45° 2	0° 013	0° 5	14° 2
22	29° 839	70° 1	45° 5	24° 6	57° 6	+8° 9	52° 4	47° 3	10° 3	20° 8	0° 4	69	127° 4	37° 8	45° 4	0° 000	10° 9	14° 2
23	29° 760	64° 0	47° 9	16° 1	56° 0	+7° 3	51° 5	47° 1	8° 9	14° 8	3° 8	71	123° 3	38° 8	45° 7	0° 000	10° 4	14° 3
24	29° 506	69° 2	50° 1	19° 1	58° 1	+9° 5	53° 4	49° 0	9° 1	16° 5	2° 7	72	105° 9	48° 1	46° 1	0° 096	0° 1	14° 4
25	29° 495	54° 1	49° 2	4° 9	52° 8	+4° 2	51° 9	51° 1	1° 7	4° 0	0° 8	94	60° 0	42° 0	46° 3	0° 357	0° 0	14° 4
26	29° 663	64° 4	43° 9	20° 5	53° 8	+5° 2	49° 9	45° 9	7° 9	18° 7	3° 0	74	126° 7	38° 8	46° 8	0° 000	6° 1	14° 5
27	29° 663	66° 6	44° 7	21° 9	55° 2	+6° 6	51° 4	47° 7	7° 5	16° 6	0° 2	76	129° 0	37° 9	47° 2	0° 000	5° 6	14° 5
28	29° 709	66° 9	47° 5	19° 4	55° 4	+6° 7	51° 9	48° 5	6° 9	16° 4	0° 0	77	132° 6	45° 0	47° 4	0° 015	4° 2	14° 6
29	29° 816	59° 3	45° 3	14° 0	50° 9	+2° 1	49° 1	47° 2	3° 7	8° 7	0° 0	87	100° 8	45° 5	47° 6	0° 029	1° 5	14° 7
30	29° 712	58° 3	47° 4	10° 9	51° 2	+2° 2	49° 0	46° 7	4° 5	10° 4	0° 8	85	92° 1	47° 4	47° 9	0° 000	2° 3	14° 7
	29° 543	57° 5	46° 6	10° 9	50° 6	+1° 5	49° 7	48° 8	1° 8	5° 6	0° 0	93	84° 2	46° 5	48° 1	0° 140	0° 0	14° 8
Means	29° 734	56° 7	40° 6	16° 1	48° 2	+0° 9	44° 5	39° 6	8° 6	16° 6	2° 2	72° 3	104° 7	35° 2	45° 5	Sum 1° 645	3° 9	13° 9
No. of Col. for Ref.	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 29.734 in., being 0.021 in. lower than the average for the 65 years, 1841-1906.

TEMPERATURE OF THE AIR

The highest in the month was  $70^{\circ}.1$  on April 21; the lowest, in the month was  $28^{\circ}.3$  on April 11; and the range was  $41^{\circ}.8$ .

The mean of all the highest daily readings in the month was  $56^{\circ}.7$ , being  $0^{\circ}.6$  higher than the average for the 65 years, 1841-1906.

The mean of all the lowest daily readings in the month was  $10^{\circ}6$ , being  $1^{\circ}1$  higher than the average for the 65 years, 1841-1905.

The mean of the daily wages was  $10^{\text{s}}\cdot 1$ , being  $0^{\text{s}}\cdot 5$  less than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 16°2, being 0°8 higher than the average for the 65 years 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY			WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER				
	Polaris		δ URSA MINORIS	OSLER'S			Robinson'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			
Apr. 1	hours	hours	hours	hours	SSW	SW:WSW	lbs.	lbs.	miles				
2	6·3	0·72	4·4	0·51	SSW:SW	SW:SSW	9·6	0·87	427	c b c	c Acu Nbst q	c b	
3	0·0	0·00	0·0	0·00	SSE:SSE:Calm	NW:WSW	3·2	0·11	280	b c	c p c y Cu Acu	c bc c	
4	5·5	0·63	5·1	0·58	NW:WSW	WSW:NW	1·6	0·17	268	o dd	dd o g G c Nbst	b	
5	7·8	0·89	7·8	0·89	WSW:NW	N:NNNE	8·6	0·57	409	b c rr	rr c Ast Nbst	bc b	
6	3·8	0·43	3·4	0·39	N:NNW	N:NNNE	4·0	0·58	422	b c	c Frcu Acu Nbst y	c	
7	8·3	1·00	8·3	1·00	NNE:NE:E	ESE:S	0·2	0·04	220	c b	b c Stcu Nbst y	b x	
8	6·7	0·81	6·6	0·79	S:SSW	SW:WSW	0·7	0·07	264	b x	b c b Cu Cist y	ro c b	
9	2·3	0·27	2·1	0·25	NW>NNW	N:NNNE	2·0	0·13	297	b	b c r o c Nbst	bc b c	
10	8·3	1·00	8·3	1·00	N	N:NNNE	2·2	0·16	298	c	c Stcu Acu y	c y c	
11	0·0	0·00	0·0	0·00	N:NNNE	N:NNNE	3·1	0·28	349	c b c	c Nbst Stcu y	c b x	
12	5·1	0·62	4·6	0·56	Calm:N	NW:WSW	0·9	0·04	206	b x mo	b mo zo bc y	c y c	
13	0·0	0·00	0·0	0·00	WSW:NW	N:NE	2·2	0·16	309	c id ro	c so-ha y	c b	
14	1·7	0·22	1·0	0·13	N	N:NNW:W	0·9	0·07	258	b c	c Nbst y	c y	
15	6·8	0·91	6·8	0·91	WNW:NW	WNW:WSW	4·0	0·41	413	c ir o	c Frcu y	c y	
16	6·7	0·89	6·4	0·86	WSW	WSW:SW	2·3	0·20	302	c roro r	r c Acu Frcu y	c q Po b lu-ha	
17	7·5	1·00	7·5	1·00	WSW	SW:SSW	0·4	0·03	205	b	b bc Frcu Acu y	c d o rr c b	
18	0·0	0·00	0·0	0·00	Calm:E	E:SE	6·2	0·54	312	b x	b Acu Ct y	bc lu-ha prsl	
19	1·3	0·17	1·0	0·14	W	WSW:SW	5·0	0·68	414	c	c Acu Ast	c r c rr ir	
20	3·1	0·43	3·0	0·42	S:Calm	Calm:SE:S	0·6	0·03	199	c ir c	c Frcu y	ir c	
21	7·3	1·00	7·3	1·00	SSW:SW	SW:Calm	1·6	0·06	239	c	c Nbst ir o	c bc c	
22	0·2	0·03	0·2	0·03	ESE:E	E	4·2	0·50	339	b	b c Frcu bc Ci y	b lu-ha	
23	0·0	0·00	0·0	0·00	E	SSW:WSW	1·8	0·13	260	b bc	bc Cist b Ci y	b c	
24	4·0	0·55	3·7	0·52	Calm:N	NW:Calm	0·4	0·02	190	c	c St Stcu y	c rr c	
25	4·0	0·56	3·5	0·48	WSW	WSW:SW	0·4	0·04	246	c d c r m	rr Nbst	r c b c b	
26	0·0	0·00	0·0	0·00	Calm	SSW:Calm	0·2	0·01	135	c b w	b c Acu	c b c	
27	0·8	0·12	0·7	0·10	Calm	Calm:E	0·5	0·03	164	c m	c St mo bc y	c r o c	
28	0·0	0·00	0·0	0·00	Calm	Calm	0·0	0·00	132	c mf	c d o c mo	c r o r o	
29	0·0	0·00	0·0	0·00	Calm:SSW	Calm:ENE	0·5	0·04	190	c	c Nbst	bc c	
30	0·2	0·02	0·2	0·02	ENE	ENE:Calm	0·3	0·05	200	o m f	o f m	c f	
Means	3·4	0·42	3·2	0·40	..	..	..	0·24	281				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean Temperature of Evaporation for the month was 44°·5, being 0°·6 higher than

The mean Temperature of the Dew Point for the month was 39°·6, being equal to

The mean Degree of Humidity for the month was 72·3, being 2·2 less than

The mean Elastic Force of Vapour for the month was 0·244 in., being equal to

The mean amount of Cloud for the month (a clear sky being represented by 0 and overcast sky by 10) was 7·1.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·280. The maximum daily amount of Sunshine was 10·9 hours on April 21.

The highest reading of the Solar Radiation Thermometer was 132°·6 on April 27; and the lowest reading of the Terrestrial Radiation Thermometer was 20°·6 on April 11.

The Proportions of Wind referred to the cardinal points were N.21, E.14, S.21, W.27, calm or nearly calm conditions, 17, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 9·6 lbs. on the square foot on April 1. The mean daily Horizontal Movement of the Air for the month was 281 miles; the greatest daily value was 497 miles on April 15, and the least daily value was 132 miles on April 28.

Rain (0·005 in. or over) fell on 16 days in the month, amounting to 1·645 in., as measured by gauge No.6 partly sunk below the ground; being 0·079 in. greater than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER  Mean of 24 Hourly Values (Corrected to 32° Fahrenheit)	TEMPERATURE							Difference between the Air Temperature and Dew Point Temperature			TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground	Daily Duration of Sun- shine	Sun above Horizon	
		Of the Air				Of Evapo- ration	Of the Dew Point							Of Radiation	Or the Earth 4 ft. below the surface			
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deduced Mean Daily Value	Mean	Greatest	Least	Highest in Sun's Rays	Lowest on the Grass					
May	in.	o	o	o	o	o	o	o	o	o	o	o	o	o	o	in.	hours	hours
	1 29.507	63.1	47.0	16.1	52.7	+3.4	50.7	48.8	3.9	9.4	0.0	86	102.5	39.0	48.3	0.004	2.0	14.8
	2 29.558	63.9	45.4	18.5	53.3	+3.8	50.7	48.1	5.2	12.9	0.0	83	110.5	41.0	48.6	0.000	0.6	14.9
	3 29.589	65.1	44.4	20.7	54.2	+4.4	49.8	45.2	9.0	17.9	1.3	71	124.3	40.2	48.7	0.000	8.1	14.9
	4 29.722	70.0	44.5	25.5	54.9	+4.9	50.8	46.7	8.2	20.7	0.8	73	119.1	41.0	48.9	0.000	7.8	15.0
	5 29.907	69.1	44.9	24.2	57.4	+7.1	51.1	44.5	12.9	21.7	2.4	62	123.5	37.2	49.1	0.000	12.3	15.1
	6 29.964	61.6	44.2	17.4	51.9	+1.4	49.5	47.0	4.9	9.4	0.4	83	97.2	32.9	49.2	0.051	0.3	15.1
	7 29.994	68.4	38.3	28.1	52.3	+1.6	46.4	39.1	13.2	28.5	0.0	61	108.5	29.0	49.5	0.000	9.1	15.2
	8 29.970	59.8	44.7	15.1	52.2	+1.2	48.7	45.0	7.2	10.3	1.2	76	99.9	36.9	49.6	0.023	0.0	15.2
	9 30.022	65.0	43.4	21.6	52.9	+1.7	48.7	44.1	8.8	18.9	1.1	72	121.5	34.3	49.8	0.000	10.5	15.3
	10 29.999	69.8	41.3	28.5	57.2	+5.7	50.8	44.0	13.2	24.9	1.2	62	121.7	31.8	50.0	0.000	9.7	15.3
	11 30.127	58.8	42.4	16.4	52.6	+0.8	46.5	39.0	13.6	25.0	3.3	60	119.1	32.0	50.1	0.000	7.0	15.4
	12 30.225	64.9	36.6	28.3	51.4	-0.7	46.0	39.2	12.2	21.8	0.0	64	120.6	26.2	50.3	0.000	5.8	15.5
	13 30.053	70.7	40.5	30.2	56.2	+3.8	50.4	44.3	11.9	21.7	0.0	64	121.1	30.3	50.3	0.000	7.5	15.5
	14 29.707	72.6	47.2	25.4	59.4	+6.8	52.7	46.1	13.3	25.4	0.9	61	133.2	36.5	50.7	0.000	13.7	15.6
	15 29.398	72.4	49.2	23.2	61.0	+8.8	53.9	47.1	13.9	28.1	4.4	59	139.2	38.0	50.9	0.137	7.9	15.6
	16 29.599	62.9	48.2	14.7	56.6	+3.6	50.1	43.0	13.6	30.1	2.6	61	119.9	39.3	51.0	0.013	11.1	15.7
	17 29.880	65.2	46.1	19.1	54.2	+1.1	48.6	42.3	11.9	20.0	3.1	64	128.4	36.8	51.3	0.000	9.4	15.7
	18 29.999	64.5	41.4	23.1	53.9	+0.6	48.0	41.1	12.8	24.1	0.7	62	124.3	30.0	51.5	0.000	12.6	15.7
	19 30.068	63.2	43.4	19.8	54.4	+0.9	46.4	36.0	18.4	30.0	4.5	49	124.6	30.3	51.7	0.000	14.6	15.8
	20 30.004	68.2	43.3	24.9	55.7	+1.9	47.1	36.1	19.6	36.0	3.4	48	129.7	29.4	52.0	0.000	14.1	15.8
	21 29.838	62.4	39.9	22.5	52.5	-1.7	47.5	41.8	10.7	19.6	2.0	67	125.6	27.5	52.2	0.000	10.3	15.9
	22 29.671	62.5	48.3	14.2	53.9	-0.7	51.7	49.6	4.3	12.7	0.8	85	115.9	36.1	52.2	0.594	3.4	15.9
	23 29.708	68.1	43.1	25.0	55.7	+0.8	51.4	47.0	8.7	17.5	0.7	73	139.0	31.2	52.5	0.000	9.1	16.0
	24 29.798	66.3	48.3	18.0	57.0	+1.7	52.4	48.0	9.0	17.6	1.0	71	131.6	38.1	52.6	0.000	7.5	16.0
	25 29.737	73.0	48.1	24.9	62.1	+6.6	55.4	49.3	12.8	22.4	2.0	63	132.0	37.3	52.7	0.000	1.9	16.1
	26 29.635	66.1	52.0	14.1	59.8	+4.0	57.0	54.7	5.1	9.9	0.9	83	103.4	46.0	52.7	0.143	3.9	16.1
	27 29.713	69.6	51.6	18.0	59.5	+3.5	54.7	50.4	9.1	18.7	1.8	72	133.3	44.0	53.0	0.000	10.4	16.2
	28 29.691	63.4	50.3	13.1	56.8	+0.6	54.2	52.0	4.8	9.2	0.9	84	100.2	41.5	53.0	0.053	1.2	16.2
	29 29.766	65.7	48.0	17.7	56.8	+0.4	53.2	49.8	7.0	14.0	0.4	77	118.5	38.0	53.3	0.015	3.1	16.2
	30 29.951	72.3	50.5	21.8	60.7	+4.0	54.6	49.0	11.7	23.2	0.8	65	133.1	41.5	53.4	0.000	9.0	16.2
	31 30.095	68.3	51.5	16.8	59.8	+2.7	52.7	45.7	14.1	24.5	6.2	59	135.0	46.0	53.6	0.000	6.6	16.3
Means	29.835	66.3	45.4	20.9	55.8	+2.7	50.7	45.3	10.5	20.2	1.6	68.4	121.2	36.1	51.1	1.033	7.4	15.6
No. of Col. for Ref.	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 29.835 in., being 0.034 in. higher than the average for the 65 years, 1841-1905.

#### TEMPERATURE OF THE AIR

The highest in the month was 73.0 on May 25; the lowest in the month was 36.6 on May 12; and the range was 36.4.

The mean of all the highest daily readings in the month was 66.3, being 4.1 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 45.4, being 1.2 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 20.9, being 2.9 greater than the average for the 65 years, 1841-1905.

The mean for the month was 55.8, being 2.7 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS				CLOUDS AND WEATHER					
	POLARIS		δ URSA 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 Measurements						
May 1	hours	hours	hours	hours			lbs.	lbs. miles						
2	5 <sup>6</sup>	0 <sup>83</sup>	5 <sup>4</sup>	0 <sup>80</sup>	Calm		0 <sup>2</sup>	0 <sup>02</sup>	150	c m	r o c f r s t m b c	b m o		
3	5 <sup>8</sup>	0 <sup>86</sup>	5 <sup>8</sup>	0 <sup>86</sup>	NNE:ENE		0 <sup>3</sup>	0 <sup>05</sup>	228	b c m o	c s t c u	c b w		
4	6 <sup>3</sup>	1 <sup>00</sup>	6 <sup>3</sup>	1 <sup>00</sup>	N:NNNE		1 <sup>3</sup>	0 <sup>15</sup>	272	b c w	c f r c u a c u	b c		
5	5 <sup>9</sup>	0 <sup>94</sup>	5 <sup>9</sup>	0 <sup>94</sup>	N:NNW		1 <sup>2</sup>	0 <sup>12</sup>	273	c	c a s t m o b z o	b w		
					N:NE:Calm		0 <sup>3</sup>	0 <sup>05</sup>	201	b w m o	b c l i s t z o b c u c i y	b		
6	6 <sup>2</sup>	0 <sup>99</sup>	6 <sup>2</sup>	0 <sup>99</sup>	Calm		N:NNNE:NE	0 <sup>4</sup>	0 <sup>04</sup>	206	b b c c	c r o i r	c b	
7	1 <sup>22</sup>	0 <sup>19</sup>	0 <sup>6</sup>	0 <sup>09</sup>	Calm		Calm:SSW	0 <sup>2</sup>	0 <sup>02</sup>	161	b w m	b z o z c u y	c b c	
8	3 <sup>8</sup>	0 <sup>61</sup>	3 <sup>5</sup>	0 <sup>57</sup>	SW:Calm		Calm:E	0 <sup>2</sup>	0 <sup>01</sup>	162	c d d o m o	dd o n b s t c	bc b	
9	6 <sup>3</sup>	1 <sup>00</sup>	6 <sup>3</sup>	1 <sup>00</sup>	Calm:E		E:ESE:Calm	0 <sup>6</sup>	0 <sup>05</sup>	205	b c	c b m b c i s t y	b	
10	3 <sup>0</sup>	0 <sup>48</sup>	2 <sup>7</sup>	0 <sup>43</sup>	Calm		Calm:N:NE	0 <sup>5</sup>	0 <sup>05</sup>	183	b w	b z o y	c b	
11	5 <sup>8</sup>	1 <sup>00</sup>	5 <sup>8</sup>	1 <sup>00</sup>	NE:ENE		ESE	1 <sup>7</sup>	0 <sup>14</sup>	260	b c	c b c a c u s t c u y	c b c b	
12	5 <sup>8</sup>	1 <sup>00</sup>	5 <sup>8</sup>	1 <sup>00</sup>	Calm:SW		WSW:W	0 <sup>8</sup>	0 <sup>05</sup>	208	b b c	c b c a c u f r c u z o y	b b	
13	5 <sup>8</sup>	1 <sup>00</sup>	5 <sup>8</sup>	1 <sup>00</sup>	W:WSW		W:WSW	1 <sup>3</sup>	0 <sup>10</sup>	259	b c	c s t c u y	c b c y	
14	4 <sup>0</sup>	0 <sup>70</sup>	3 <sup>7</sup>	0 <sup>64</sup>	WSW:SSW		WSW:SSW	1 <sup>3</sup>	0 <sup>10</sup>	256	b	b c a c u b y	b c	
15	0 <sup>0</sup>	0 <sup>00</sup>	0 <sup>0</sup>	0 <sup>00</sup>	Calm:ENE		E:Var.	3 <sup>0</sup>	0 <sup>20</sup>	251	c	c s t b c y	c i r R t l	
16	3 <sup>9</sup>	0 <sup>68</sup>	3 <sup>8</sup>	0 <sup>66</sup>	ENE:E		E:NE	2 <sup>3</sup>	0 <sup>34</sup>	312	c i r t l	b c b c i s t c i y	b w	
17	5 <sup>7</sup>	0 <sup>98</sup>	5 <sup>7</sup>	0 <sup>98</sup>	NE:ENE		Calm:ESE	0 <sup>5</sup>	0 <sup>03</sup>	215	c c b c	c f r c u c u b c y	b b c b	
18	5 <sup>3</sup>	1 <sup>00</sup>	5 <sup>3</sup>	1 <sup>00</sup>	Calm:E		ESE:E	0 <sup>3</sup>	0 <sup>05</sup>	216	b c	c b c f r c u y	b w	
19	5 <sup>3</sup>	1 <sup>00</sup>	5 <sup>3</sup>	1 <sup>00</sup>	NE:ENE		E	3 <sup>0</sup>	0 <sup>36</sup>	300	b	b f r c u y	b y	
20	5 <sup>3</sup>	1 <sup>00</sup>	5 <sup>3</sup>	1 <sup>00</sup>	NE:ENE		ENE:SE:Calm	1 <sup>3</sup>	0 <sup>09</sup>	245	b	b b c a c u y	b	
21	0 <sup>0</sup>	0 <sup>00</sup>	0 <sup>0</sup>	0 <sup>00</sup>	Calm:E		E	2 <sup>6</sup>	0 <sup>41</sup>	298	b x	b f r s t c u c i y	c b	
22	5 <sup>3</sup>	1 <sup>00</sup>	5 <sup>3</sup>	1 <sup>00</sup>	ENE:Var.		SW:SSW	1 <sup>7</sup>	0 <sup>07</sup>	202	c i r R	r r r o n b s t	c c b w	
23	5 <sup>1</sup>	0 <sup>97</sup>	5 <sup>0</sup>	0 <sup>95</sup>	Calm		SSW:SW	0 <sup>7</sup>	0 <sup>07</sup>	207	b w	b v c a c u n b s t y	bc	
24	4 <sup>7</sup>	0 <sup>90</sup>	4 <sup>3</sup>	0 <sup>81</sup>	SSW:SW		SW:S	1 <sup>7</sup>	0 <sup>11</sup>	278	b c r o c	c b c a s t a c u c u y	c	
25	1 <sup>5</sup>	0 <sup>31</sup>	1 <sup>5</sup>	0 <sup>31</sup>	Calm:SSE		SSE:S	1 <sup>9</sup>	0 <sup>12</sup>	240	bc c	c f r s t y	c y	
26	4 <sup>5</sup>	0 <sup>91</sup>	4 <sup>5</sup>	0 <sup>91</sup>	Calm		Calm:WSW	0 <sup>4</sup>	0 <sup>04</sup>	190	c p o b c	c a s t r o r	b	
27	3 <sup>7</sup>	0 <sup>73</sup>	2 <sup>9</sup>	0 <sup>57</sup>	SW		SW	1 <sup>6</sup>	0 <sup>17</sup>	287	b c	c a c u y	b c c c i s t b c	
28	4 <sup>3</sup>	0 <sup>87</sup>	4 <sup>3</sup>	0 <sup>87</sup>	SW:Calm		SW	0 <sup>2</sup>	0 <sup>02</sup>	172	c r o c	c n b s t r o r o r	c b w	
29	4 <sup>7</sup>	0 <sup>94</sup>	4 <sup>5</sup>	0 <sup>86</sup>	Calm		N:NNW	1 <sup>1</sup>	0 <sup>03</sup>	191	b c	c m o n b s t p o t y	c b	
30	2 <sup>3</sup>	0 <sup>47</sup>	2 <sup>2</sup>	0 <sup>43</sup>	NW		WNW	0 <sup>8</sup>	0 <sup>07</sup>	237	b	b b c c u c i z o y	c b c c	
31	3 <sup>7</sup>	0 <sup>74</sup>	3 <sup>5</sup>	0 <sup>70</sup>	NNW:N		N:NNW	0 <sup>9</sup>	0 <sup>11</sup>	249	c	c s t c u a c u b c y	c b	
Means	4 <sup>4</sup>	0 <sup>77</sup>	4 <sup>2</sup>	0 <sup>75</sup>	..		..	0 <sup>10</sup>	229					
No. of Col. for Ref.	19	20	21	22	23		24	25	26	27	28	29	30	31

The mean Temperature of Evaporation for the month was 50°.7, being 1°.7 higher than

The mean Temperature of the Dew Point for the month was 45°.3, being 0°.5 higher than

The mean Degree of Humidity for the month was 68.4, being 5.5 less than

The mean Elastic Force of Vapour for the month was 0.304 in., being 0.006 in. greater than

The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5.2.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.476. The maximum daily amount of Sunshine was 14.6 hours on May 19.

The highest reading of the Solar Radiation Thermometer was 139°.2 on May 15; and the lowest reading of the Terrestrial Radiation Thermometer was 26°.2 on May 12.

The Proportions of Wind referred to the cardinal points were N.23, E.23, S.14, W.15, calm or nearly calm conditions, 25, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 3.0 lbs. on the square foot on May 15 and 19. The mean daily Horizontal Movement of the Air for the month was 229 miles; the greatest daily value was 312 miles on May 16, and the least daily value was 150 miles on May 1.

Rain (0.005 in. or over) fell on 8 days in the month, amounting to 1.033 in., as measured by gauge No.6 partly sunk below the ground; being 0.882 in. less than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER Mean of 24 Hourly Values (Corrected to 30° 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	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	Mean	Greatest	Least	Highest in Sun's Rays	Lowest on the Grass					
June 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	in. 30° 127 30° 124 30° 166 30° 161 30° 098 30° 020 30° 047 30° 016 29° 877 29° 775 29° 762 29° 668 29° 725 29° 880 29° 872 29° 975 30° 035 30° 098 30° 056 30° 006 29° 901 29° 373 29° 224 29° 354 29° 455 29° 707 30° 006 30° 132 30° 073 30° 182	o	o	o	o	o	o	o	o	o	o	o	o	o	in.	hours	hours	
		73° 4	51° 6	21° 8	63° 8	+6° 4	58° 2	53° 7	10° 1	16° 8	1° 8	70	128° 6	42° 1	53° 8	0° 000	3° 5	16° 3
		71° 3	54° 0	17° 3	63° 5	+5° 7	57° 6	52° 8	10° 7	15° 0	2° 3	68	135° 4	44° 0	54° 0	0° 000	12° 6	16° 4
		71° 7	49° 7	22° 0	60° 8	+2° 7	56° 0	51° 9	8° 9	18° 2	0° 0	72	133° 6	37° 1	54° 2	0° 000	12° 5	16° 4
		70° 0	51° 9	18° 1	60° 6	+2° 3	56° 4	52° 9	7° 7	17° 7	0° 0	75	132° 3	44° 0	54° 4	0° 000	10° 9	16° 4
		73° 2	50° 3	22° 9	62° 3	+3° 9	55° 5	49° 3	13° 0	31° 5	1° 0	62	136° 3	43° 3	54° 8	0° 000	12° 6	16° 4
		77° 7	54° 7	23° 0	66° 6	+8° 3	58° 1	51° 0	15° 6	39° 3	3° 1	57	136° 4	45° 0	55° 0	0° 000	14° 2	16° 5
		79° 0	54° 5	24° 5	68° 0	+9° 8	58° 9	51° 5	16° 5	30° 2	2° 2	55	141° 0	42° 8	55° 4	0° 000	15° 1	16° 5
		82° 1	53° 3	28° 8	67° 9	+9° 8	60° 5	54° 9	13° 0	34° 9	1° 3	63	137° 0	44° 8	55° 7	0° 000	11° 8	16° 5
		66° 4	54° 9	11° 5	59° 9	+1° 8	58° 5	57° 5	2° 4	28° 6	1° 3	64	134° 0	46° 5	56° 0	0° 590	7° 0	16° 5
		76° 7	54° 9	23° 8	66° 5	+8° 3	60° 0	55° 1	11° 4	21° 3	0° 9	67	142° 2	45° 6	56° 6	0° 000	12° 2	16° 6
		70° 0	53° 3	16° 7	61° 9	+3° 5	55° 3	49° 3	12° 6	24° 7	2° 7	64	137° 1	45° 1	56° 6	0° 000	6° 0	16° 6
		65° 6	56° 8	9° 0	60° 4	+1° 9	57° 1	54° 4	6° 0	10° 4	2° 8	81	99° 7	48° 4	56° 5	0° 051	0° 0	16° 6
		74° 2	52° 2	22° 0	63° 0	+4° 3	55° 9	49° 6	13° 4	26° 4	1° 2	61	134° 3	40° 0	56° 8	0° 000	10° 3	16° 6
		74° 7	52° 6	22° 1	63° 2	+4° 4	56° 6	50° 9	12° 3	24° 4	1° 0	65	129° 4	41° 3	56° 9	0° 000	6° 1	16° 6
		64° 6	56° 0	8° 6	59° 5	+0° 6	56° 7	54° 4	5° 1	10° 7	1° 1	83	92° 9	53° 1	56° 8	0° 076	1° 1	16° 6
		72° 5	55° 4	17° 1	63° 5	+4° 5	57° 4	52° 6	10° 9	27° 7	1° 1	67	135° 3	47° 0	57° 0	0° 001*	5° 3	16° 6
		77° 3	56° 4	23° 9	65° 8	+6° 6	55° 5	45° 8	20° 0	35° 6	3° 1	48	137° 1	44° 1	57° 2	0° 000	15° 4	16° 6
		71° 2	49° 3	21° 9	61° 9	+2° 4	53° 6	45° 5	16° 4	24° 9	5° 5	54	132° 5	37° 8	57° 2	0° 000	6° 8	16° 6
		74° 2	54° 6	19° 6	62° 6	+2° 7	56° 1	50° 4	12° 2	30° 1	2° 8	65	131° 6	50° 4	57° 3	0° 000	9° 2	16° 6
		68° 7	51° 2	17° 5	59° 0	-1° 3	53° 3	47° 9	11° 1	20° 7	2° 4	67	131° 7	38° 7	57° 3	0° 000	8° 7	16° 6
		68° 3	47° 6	20° 7	56° 4	-4° 2	52° 1	47° 9	8° 5	18° 1	0° 8	73	124° 6	35° 1	57° 4	0° 010	4° 4	16° 6
		69° 6	51° 7	17° 9	59° 2	-1° 7	55° 9	53° 2	6° 0	18° 3	1° 4	80	119° 3	50° 0	57° 4	0° 118	4° 1	16° 6
		72° 0	56° 5	15° 5	63° 1	+1° 9	58° 9	55° 7	7° 4	14° 1	2° 6	77	126° 4	50° 2	57° 7	0° 000	4° 5	16° 6
		69° 1	50° 6	18° 5	60° 8	-0° 6	53° 2	45° 6	15° 2	28° 5	3° 2	57	130° 3	42° 6	57° 7	0° 000	9° 8	16° 6
		65° 4	50° 4	15° 0	58° 0	-3° 5	51° 7	45° 3	12° 7	17° 6	3° 2	63	129° 3	43° 0	57° 7	0° 027	11° 2	16° 6
		69° 7	49° 0	20° 7	59° 2	-2° 4	51° 6	43° 5	15° 7	26° 0	3° 4	56	125° 6	39° 1	57° 8	0° 000	6° 2	16° 6
		72° 8	49° 4	23° 4	61° 2	-0° 4	54° 5	48° 3	12° 9	20° 5	3° 4	62	136° 7	37° 2	57° 8	0° 000	2° 8	16° 6
		77° 9	52° 6	25° 3	66° 6	+5° 0	56° 8	48° 0	18° 6	30° 8	5° 8	51	135° 0	40° 0	58° 0	0° 000	14° 1	16° 6
		75° 2	52° 9	22° 3	65° 1	+3° 6	56° 7	49° 3	15° 8	27° 9	2° 5	57	140° 6	40° 2	58° 1	0° 000	12° 3	16° 6
Means	29° 896	72° 7	52° 7	19° 9	62° 6	+3° 2	56° 3	50° 8	11° 8	23° 1	2° 1	65° 9	129° 0	43° 5	56° 5	Sum 0° 873	8° 5	16° 6
No. of Col. for Ref.	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° 896 in., being 0° 074 in. higher than the average for the 65 years, 1841-1905.

\* Rainfall (Column 16). The amount entered on June 17 is derived from dew.

#### TEMPERATURE OF THE AIR

The highest in the month was 83° 7 on June 9; the lowest in the month was 47° 6 on June 22; and the range was 36° 1.

The mean of all the highest daily readings in the month was 72° 7, being 3° 8 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 52° 7, being 2° 3 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 19° 9, being 1° 4 greater than the average for the 65 years, 1841-1905.

The mean for the month was 62° 6, being 3° 2 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS				CLOUDS AND WEATHER						
	POLARIS		δ URSA MINORIS		OSLER'S			Robins- 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		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	hours	hours	hours	hours	Calm:NNW	NNW:NNE	lbs.	lbs.	miles	b c	c Frcu Frst	c Stcu y	c b c		
2	1.5	0.32	1.5	0.32	N:Calm	E	0.3	0.04	203	bc b	b bc c Frcu y	c b y	b		
3	4.5	1.00	4.5	1.00	Calm:E	E	0.7	0.07	216	b c b m	b Frcu Ci Cu y	b Cu y	b		
4	3.6	0.79	3.6	0.79	E	E	1.1	0.08	224	b c	c Frcu	b Ci y	b		
5	4.4	0.98	4.3	0.97	E	E	1.2	0.17	268	b c	c b Ci y	b y	b		
	4.5	1.00	4.5	1.00			2.0	0.26	306	b c					
6	4.5	1.00	4.5	1.00	ENE	E:ENE	2.0	0.20	290	b mo	b y	b v y	b		
7	3.9	0.87	3.9	0.87	E	E:ESE:Calm	0.8	0.05	202	b c f	f b Ci y	b y	b		
8	4.5	1.00	4.5	1.00	Calm	Calm:SSW	0.3	0.02	145	b	b Ci y	b y	b		
9	4.5	1.00	4.5	1.00	Var.	Var.	1.0	0.02	154	b c m	c Stcu m	b v c Rtl	Rtlbc b		
10	4.4	0.98	4.4	0.98	Calm	Calm:SW	0.2	0.00	104	b c	c Frst t m	c m bc b mo			
11	4.5	1.00	4.5	1.00	WSW	SW	0.8	0.08	240	b w mo	b c Cu Acu mo	bc b y	b y b		
12	1.7	0.37	1.7	0.37	SW:WSW	WSW	0.9	0.10	256	b c	bc Acu c Stcu y	c Stcu y	c b c		
13	0.0	0.00	0.0	0.00	Calm:NNW	NE:Calm	0.3	0.02	183	c mo	c Nbst Cu b Rr	c Stcu	c		
14	4.1	0.90	3.9	0.86	Calm	N:Calm	0.7	0.04	153	b c bc b	b bc Acu Cu y	b c Frct y	bc		
15	0.0	0.00	0.0	0.00	Calm	NW:ENE:Calm	0.5	0.03	175	b c	c bc Acu Cicu y	dc y	c p c		
16	0.0	0.00	0.0	0.00	N:NNW	NNW:N	1.3	0.16	278	c do	d o r f r f Nbst	r o r c	c		
17	4.5	1.00	4.5	1.00	N:NE	ENE:NE	1.4	0.20	301	c	c Acu Cu	c Stcu Acu bc b y	b y b w		
18	4.5	1.00	4.5	1.00	NE	NE:ENE	2.0	0.22	318	b bc	b Ci Cu y	b y	c y c		
19	1.5	0.33	1.4	0.32	NE	ENE:NE	1.7	0.16	301	b c	c bc Cist so-ha Acu Stcu y	b Acu dc y	bc c d o c		
20	0.0	0.00	0.0	0.00	NE	NE	2.1	0.23	330	c bc c	c Stcu b Cu Nbst y				
21	4.5	1.00	4.5	1.00	NE	Calm:ESE	1.2	0.12	251	c	c Stcu bc Frcu y	b y	b w		
22	0.0	0.00	0.0	0.00	SW:W	NW:Calm	0.9	0.04	202	b c w	c Acu Frcu Nbst y	c Nbst r o	r o r ido		
23	1.9	0.41	1.5	0.32	NE:NNNE	NNE:ESE	0.4	0.07	243	c ido r or Nbst c mo	c ido r or Nbst c mo	b m o	c		
24	..	..	..	..	NE:NNNE	Calm:NW	0.2	0.03	195	b c mo	c Ast Nbst	b c	b c		
25	1.7	0.37	1.7	0.37	NW:WNW	NW:WSW	3.3	0.27	327	b c	b c Frcu Nbst bc Cu y	b c Acu Cu c y	b c y c		
26	1.8	0.40	1.6	0.35	WSW:WNW	NW:W	2.0	0.23	319	c b	b bc Frcu Stcu y	c p t l Stcu b y	b y c		
27	4.0	0.90	4.0	0.90	W:Calm:WNW	WWN	0.6	0.07	227	c c	c Frcu Nbst y	c bc y	bc y b		
28	4.5	1.00	4.5	1.00	Calm	S:SSE	0.3	0.03	182	b c	c Stcu Cu Acu y	c Stcu Acu y	b		
29	0.0	0.00	0.0	0.00	S:SSW	SSW:W:NW	1.8	0.22	286	b	b bc Acu Ci Cist y	b y	bc y c do		
30	4.5	1.00	4.5	1.00	N:NNE	NNE:ESE:Calm	1.4	0.08	212	c	c b Frcu bc y	b c y	c b		
Means	2.9	0.64	2.9	0.64	..	..	0.11	236							
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31		

The mean Temperature of Evaporation for the month was  $56^{\circ}3$ , being  $1^{\circ}4$  higher than

The mean Temperature of the Dew Point for the month was  $50^{\circ}8$ , being equal to

The mean Degree of Humidity for the month was  $65^{\circ}9$ , being  $7^{\circ}3$  less than

The mean Elastic Force of Vapour for the month was  $0.373$  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  $5^{\circ}0$ .

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was  $0.512$ . The maximum daily amount of Sunshine was  $15^{\circ}4$  hours on June 18.

The highest reading of the Solar Radiation Thermometer was  $142^{\circ}2$  on June 11; and the lowest reading of the Terrestrial Radiation Thermometer was  $35^{\circ}1$  on June 22.

The Proportions of Wind referred to the cardinal points were N.23, E.28, S.8, W.17, calm or nearly calm conditions, 24, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was  $3.3$  lbs. on the square foot on June 25. The mean daily Horizontal Movement of the Air for the month was 236 miles; the greatest daily value was 330 miles on June 20, and the least daily value was 104 miles on June 10.

Rain ( $0.005$  in. or over) fell on 6 days in the month, amounting to  $0.873$  in., as measured by gauge No.6 partly sunk below the ground; being  $1.165$  in. less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER  Mean of 24 Hourly Values (corrected 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 in 5 inches above the Ground	Daily Duration of Sun- shine	Sun above Horizon				
		Of the Air				of Evapo- ration	Of the Dew Point				Of Radiation	Of the Earth 4 ft. below the surface								
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values			Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value	Mean	Greatest	Least	Highest in Sun's Ray's	Lowest on the Grass					
July 1	in.	o	o	o	o	o	o	o	o	o	15° 0	31° 9	0° 8	58	133° 3	41° 1	58° 2	0° 000	13° 5	16° 6
2	30° 119	75° 9	48° 9	27° 0	62° 8	+1° 3	55° 0	47° 8	18° 0	32° 5	1° 4	53	136° 6	41° 1	58° 5	0° 000	9° 9	16° 6		
3	29° 869	81° 7	51° 5	30° 2	67° 2	+5° 6	57° 6	49° 2	12° 2	20° 5	2° 8	65	132° 6	52° 0	58° 4	0° 126	2° 4	16° 5		
4	29° 595	73° 2	55° 3	17° 9	63° 5	+1° 7	56° 9	51° 3	15° 6	23° 1	5° 6	56	125° 6	39° 8	58° 6	0° 000	4° 5	16° 5		
5	29° 615	65° 8	51° 7	14° 1	58° 4	-3° 7	50° 9	42° 8	10° 6	22° 1	3° 6	63	143° 7	38° 0	58° 7	0° 000	6° 7	16° 5		
6	29° 581	73° 8	50° 3	23° 5	62° 4	+0° 1	55° 7	51° 8	10° 6	22° 1	3° 6	85	79° 1	51° 4	58° 7	0° 254	0° 1	16° 4		
7	29° 520	64° 3	56° 2	8° 1	59° 6	-2° 8	57° 0	54° 9	4° 7	7° 1	2° 1	70	138° 2	45° 8	58° 8	0° 321	11° 9	16° 4		
8	29° 460	68° 8	52° 4	16° 4	60° 5	-1° 9	55° 2	50° 5	10° 0	18° 4	3° 0	63	132° 6	44° 3	59° 0	0° 015	9° 1	16° 4		
9	29° 703	73° 2	54° 3	18° 9	63° 0	+0° 6	56° 1	50° 0	13° 0	26° 2	2° 4	77	122° 6	38° 5	59° 0	0° 000	5° 0	16° 4		
10	29° 898	71° 2	50° 3	20° 9	61° 8	-0° 6	57° 9	54° 9	6° 9	12° 7	1° 0	75	111° 5	55° 0	59° 0	0° 484	0° 7	16° 3		
11	29° 737	73° 8	58° 8	15° 0	65° 2	+2° 7	60° 5	57° 1	8° 1	14° 9	1° 4	87	76° 5	42° 3	59° 2	0° 455	0° 0	16° 2		
12	29° 652	69° 7	52° 0	17° 7	60° 1	-2° 6	55° 2	50° 8	9° 3	19° 4	0° 7	72	132° 0	43° 3	59° 2	0° 189	9° 1	16° 3		
13	29° 691	67° 0	49° 5	17° 5	57° 3	-5° 6	52° 8	48° 6	8° 7	19° 0	1° 4	72	125° 7	40° 8	59° 0	0° 052	6° 8	16° 3		
14	29° 684	68° 9	49° 6	19° 3	60° 3	-2° 8	54° 8	49° 9	10° 4	23° 7	2° 2	69	132° 7	39° 6	59° 2	0° 003	9° 1	16° 3		
15	29° 692	73° 6	46° 7	26° 9	60° 0	-3° 3	53° 9	48° 3	11° 7	22° 4	0° 7	65	140° 3	33° 9	59° 2	0° 000	11° 3	16° 2		
16	29° 621	65° 0	50° 8	14° 2	58° 1	-5° 3	56° 0	54° 2	3° 9	8° 7	2° 2	87	132° 3	48° 0	59° 0	0° 455	0° 0	16° 2		
17	29° 545	59° 7	56° 2	3° 5	58° 5	-4° 9	57° 6	56° 9	1° 6	2° 5	0° 7	95	63° 9	55° 2	59° 0	0° 827	0° 0	16° 2		
18	29° 616	68° 4	53° 5	14° 9	59° 5	-3° 9	54° 8	50° 6	8° 9	25° 5	0° 4	72	119° 0	46° 1	59° 1	0° 040	6° 7	16° 1		
19	29° 609	65° 6	50° 3	15° 3	57° 4	-5° 9	54° 8	52° 6	4° 8	8° 4	1° 5	84	114° 4	43° 2	59° 0	0° 146	3° 3	16° 1		
20	29° 668	72° 9	54° 5	18° 4	62° 4	-0° 8	57° 2	52° 8	9° 6	18° 1	1° 3	71	130° 2	49° 0	59° 1	0° 000	11° 4	16° 0		
21	29° 696	72° 1	56° 0	16° 1	63° 1	-0° 1	57° 6	53° 1	10° 0	21° 6	3° 1	70	132° 3	48° 0	59° 0	0° 114	9° 4	16° 0		
22	29° 751	68° 6	53° 6	15° 0	60° 5	-2° 7	55° 4	50° 9	9° 6	18° 0	3° 3	71	130° 3	45° 5	59° 0	0° 079	7° 6	16° 0		
23	29° 748	70° 4	49° 7	20° 7	60° 3	-2° 8	54° 7	49° 7	10° 6	20° 6	1° 0	68	127° 3	41° 0	59° 1	0° 000	9° 3	15° 9		
24	29° 753	67° 3	54° 4	12° 9	59° 7	-3° 3	55° 1	51° 0	8° 7	16° 9	1° 8	73	119° 5	44° 2	59° 0	0° 007	1° 1	15° 9		
25	29° 737	63° 2	51° 2	12° 0	56° 8	-6° 1	54° 7	53° 0	3° 8	11° 1	0° 4	87	98° 6	42° 0	59° 2	0° 242	0° 0	15° 8		
26	29° 725	71° 7	48° 4	23° 3	59° 1	-3° 6	55° 0	51° 4	7° 7	20° 6	0° 0	76	135° 4	41° 1	59° 3	0° 002*	7° 4	15° 8		
27	29° 700	71° 7	53° 2	18° 5	60° 5	-2° 0	55° 4	50° 9	9° 6	22° 1	1° 5	71	121° 9	46° 2	59° 1	0° 197	5° 4	15° 8		
28	29° 875	62° 4	51° 3	11° 1	56° 3	-6° 1	53° 0	49° 9	6° 4	12° 3	0° 9	79	100° 1	44° 0	59° 0	0° 056	4° 5	15° 7		
29	30° 112	70° 2	48° 3	21° 9	59° 4	-2° 9	53° 6	48° 2	11° 2	21° 4	1° 0	66	128° 7	36° 2	59° 0	0° 000	11° 2	15° 6		
30	30° 100	70° 0	51° 0	19° 0	61° 4	-0° 9	53° 8	46° 5	14° 9	22° 6	3° 7	58	126° 7	41° 9	59° 1	0° 000	10° 3	15° 6		
31	30° 095	66° 2	55° 4	10° 8	61° 1	-1° 2	57° 1	53° 9	7° 2	12° 8	4° 9	77	88° 9	50° 7	59° 1	0° 000	0° 4	15° 5		
Means	29° 751	69° 7	52° 3	17° 4	60° 7	-2° 0	55° 6	51° 3	9° 4	18° 5	1° 9	71° 7	120° 3	44° 2	59° 0	3° 609	6° 4	16° 1		
No. of Col. for Ref.	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° 751 in., being 0° 055 in. lower than the average for the 65 years, 1841-1905.

\* Rainfall (Column 16). The amount entered on July 25 is derived from dew.

#### TEMPERATURE OF THE AIR

The highest in the month was 81° 7 on July 2; the lowest in the month was 46° 7 on July 14; and the range was 35° 0.

The mean of all the highest daily readings in the month was 69° 7, 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 52° 3, being 1° 5 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 17° 4, being 0° 9 less than the average for the 65 years, 1841-1905.

The mean for the month was 60° 7, being 2° 0 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS,

Month and Day 1940	RECORD OF THE NIGHT SKY			WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS				Horizontal Move- ment of the Air	CLOUDS AND WEATHER				
	Polaris		δ URSÆ MINORIS		OSLER'S								
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot		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							
July 1	hours	hours	hours	hours	NE:ESE	0·7	0·04	175	b Ci y	b Ci bc y	b Ci bc y	bc	
2	3·5	0·77	3·5	0·77	Calm:NE	1·3	0·14	242	bc c	b Acu c Frst Stcu y	c Acu y	c y	
3	0·0	0·00	0·0	0·00	Calm:SW	WNW:WNW	1·5	0·18	311	c 1r	c Nbst Frcu y	c Stcu Acu t R c y	c ro c y
4	1·7	0·37	1·7	0·37	W:WSW	WNW:NNW	2·0	0·28	336	c b	b c Acu Stcu Nbst y v	c y b	c v
5	2·8	0·63	2·8	0·63	NWW	WNW:WSW	1·5	0·08	237	b c	c Acu Cu Fr cu bc y	bc c y	
	0·0	0·00	0·0	0·00	SW:Calm	SW							
6	0·6	0·13	0·5	0·10	SW:SSW	SSW:WSW	0·7	0·02	211	c r c	dd D r c Nbst rr	rr o c Nbst	c
7	0·0	0·00	0·0	0·00	W:WSW	SW	1·4	0·07	252	c	c b Cu Cist c Cumb y v	c Cumb r Rt c y	c rr o
8	4·5	1·00	4·5	1·00	Calm:W	NW:SSW	1·3	0·10	237	rr o c d c	c Stcu Acu bc v y	bc v c y	c bc y b
9	0·0	0·00	0·0	0·00	SSW	SW:SSW	1·8	0·24	293	b c	c Stcu	c	c
10	0·5	0·11	0·5	0·11	Calm:S	S:SSW:Calm	1·7	0·10	210	c	c Acu Nbst Cumb	c Nbst Ast r o c y	c ir R
	0·0	0·00	0·0	0·00									
11	4·5	1·00	4·5	1·00	Calm:SW	SW:WSW	2·8	0·34	304	rR c rr	rr c Nbst Acu Cu y	c Po c 1r y	c p c b
12	0·0	0·00	0·0	0·00	SSW:SW	SW:SSW	3·5	0·31	316	b bc	bc Acu c Nbst rr	r c Cumb Frst y	c r o r c d o d o
13	5·0	1·00	5·0	1·00	SW	SW:SSW	2·3	0·22	293	d o c	c Nbst 1p o bc y	c bc b y	b bc
14	3·6	0·72	3·5	0·70	Calm	SSW:Calm	0·6	0·03	159	b c	bc Acu y	c b	c id o
15	0·0	0·00	0·0	0·00	Calm:ENE	ENE:NE:NNE	1·0	0·08	233	b c	c Stcu Nbst r o r o	r o R c	
	0·0	0·00	0·0	0·00	N:NNW	NW:Calm:W	0·7	0·06	202	d o d o rr c	dd c Nbst R o m o	r o r o rr m o	rrR c dd
16	0·0	0·00	0·0	0·00	W:NNW	WNW:WSW	3·0	0·25	312	dd c	c dd c St Acu	c b b c y	b c b
17	4·8	0·96	4·8	0·96	W:WNW	SW	3·6	0·25	310	b c	c St Nbst rr	c rr c Acu	c b c r o c
18	2·5	0·50	2·0	0·39	WSW:SW	SW	3·3	0·20	303	c	c bc Stcu Cist y	bc y	c r b
19	1·5	0·31	0·9	0·19	SW:WSW	SW	4·1	0·56	377	c	c ir c Nbst Stcu y	c Cu Fr cu y	
20	4·9	0·86	4·8	0·83	SSW:SW	SW:WSW							
	0·0	0·00	0·0	0·00									
21	5·8	1·00	5·7	0·99	WSW	WNW:WSW	3·5	0·27	324	b c bc	bc c Stcu Cu Nbst py	c t l r b	b
22	1·6	0·27	0·8	0·14	WSW:W	NW:N:Calm	0·8	0·05	200	b b	b c Frst Acu Nbst y	c y	c
23	5·7	0·99	5·7	0·99	NE:Calm	Calm	0·1	0·00	136	c lu-ha	c Ast dd c	c Acu b	
24	5·1	0·89	5·1	0·89	SW:WSW	SW:Calm	0·6	0·08	224	b c	c Ast Nbst r o	ir o rr Nbst	rr c b f c b
25	0·0	0·00	0·0	0·00	WSW:Calm	SSW:Calm	0·2	0·01	180	b f bc m o w	bc Cist Cu m o bc y	bc c y	c d o d o c
	0·0	0·00	0·0	0·00	Var.	WNW	1·1	0·08	229	c rr c rr	rr c Ast bc Cu	bc c y	c P c l b c l
26	2·1	0·36	1·8	0·30	Calm:WSW:NW	Var:N	0·6	0·04	207	c	c Stcu Nbst t l c r c t	c t l c ip c	c b
27	6·2	1·00	6·2	1·00	N	Calm:NNW	0·3	0·03	198	b	b bc Fr cu Cist y	bc c y	c
28	3·2	0·52	3·1	0·50	N	NNW	1·0	0·09	247	c b	c b bc Cu Frst y	bc Cu Ci y	bc y
29	2·4	0·38	1·9	0·30	NW:W	NW:NNW	0·6	0·05	235	bc c	c St Nbst d o c	c St	c b
30	4·8	0·76	1·5	0·23									
31	4·1	0·65	3·6	0·58	Calm:N	NE:E	0·5	0·03	198	b bc w	b bc b Frst y	b c Frst y	c bc b
Means	2·6	0·49	2·4	0·45	..	..	..	0·14	248				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean Temperature of Evaporation for the month was 55°.6, being 2°.3 lower than

The mean Temperature of the Dew Point for the month was 51°.3, being 2°.8 lower than

The mean Degree of Humidity for the month was 71·7, being 1·5 less than

The mean Elastic Force of Vapour for the month was 0·380 in., being 0·041 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 7·1.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·394. The maximum daily amount of Sunshine was 13·5 hours on July 1.

The highest reading of the Solar Radiation Thermometer was 143°.7 on July 5; and the lowest reading of the Terrestrial Radiation Thermometer was 33°.9 on July 14.

The Proportions of Wind referred to the cardinal points were N.15, E.4, S.22, W.39, calm or nearly calm conditions, 20, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 4·1 lbs. on the square foot on July 20. The mean daily Horizontal Movement of the Air for the month was 248 miles; the greatest daily value was 377 miles on July 20, and the least daily value was 136 miles on July 23.

Rain (0·005 in. or over) fell on 17 days in the month, amounting to 3·609 in., as measured by gauge No.6 partly sunk below the ground; being 1·210 in. greater than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	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	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	Mean	Greatest	Least	Highest in Sun's Rays	Lowest on the Grass					
in.	o	o	o	o	o	o	o	o	o	o	o	o	o	o	in.	hours	hours	
Aug. 1	30° 130	73° 0	54° 4	18° 6	61° 7	-0° 5	57° 6	54° 3	7° 4	15° 9	2° 2	76	129° 7	47° 8	59° 2	0° 000	8° 4	15° 4
2	30° 124	69° 9	55° 6	14° 3	60° 2	-1° 9	55° 4	51° 1	9° 1	13° 6	5° 0	72	126° 1	50° 4	59° 2	0° 000	7° 2	15° 4
3	30° 126	71° 8	57° 4	14° 4	61° 9	-0° 2	58° 1	55° 1	6° 8	12° 0	2° 8	78	128° 3	49° 6	59° 3	0° 000	7° 3	15° 3
4	29° 987	78° 6	57° 4	21° 2	66° 1	+4° 0	61° 3	57° 9	8° 2	18° 2	2° 2	75	133° 3	49° 4	59° 6	0° 000	6° 3	15° 3
5	29° 987	81° 1	55° 2	25° 9	68° 4	+6° 3	62° 0	57° 5	10° 9	22° 3	0° 9	68	133° 4	44° 1	59° 7	0° 000	8° 9	15° 2
6	29° 758	73° 8	56° 3	17° 5	65° 3	+3° 1	58° 9	53° 9	11° 4	20° 7	0° 7	67	124° 0	43° 0	59° 8	0° 000	7° 6	15° 2
7	29° 769	67° 6	55° 5	12° 1	61° 6	-0° 6	58° 8	56° 7	4° 9	9° 1	0° 0	84	104° 3	44° 5	59° 8	0° 098	1° 0	15° 1
8	29° 838	72° 9	52° 4	20° 5	63° 3	+1° 0	57° 8	53° 3	10° 0	18° 2	1° 0	70	118° 4	43° 9	60° 1	0° 000	4° 3	15° 0
9	29° 834	78° 6	55° 4	23° 2	64° 5	+2° 2	60° 1	56° 9	7° 6	20° 3	1° 3	76	133° 3	48° 9	60° 2	0° 000	7° 8	15° 0
10	29° 659	72° 8	56° 4	16° 4	63° 8	+1° 5	57° 9	53° 1	10° 7	23° 9	4° 5	68	128° 1	47° 6	60° 2	0° 020	6° 6	14° 9
11	29° 900	68° 1	51° 1	17° 0	59° 1	-3° 3	51° 8	44° 1	15° 0	26° 2	4° 3	58	119° 6	43° 3	60° 1	0° 000	6° 5	14° 9
12	30° 079	70° 1	47° 5	22° 6	59° 6	-2° 9	52° 0	44° 1	15° 5	26° 6	3° 4	57	128° 6	36° 6	60° 2	0° 000	11° 6	14° 8
13	30° 026	69° 7	51° 0	18° 7	62° 0	-0° 5	56° 4	51° 5	10° 6	15° 4	3° 9	69	111° 5	40° 0	60° 2	0° 000	2° 5	14° 8
14	29° 935	69° 9	54° 7	15° 2	62° 9	+0° 4	56° 8	51° 6	11° 3	23° 8	3° 7	67	106° 1	47° 3	60° 2	0° 000	2° 8	14° 7
15	30° 015	72° 8	56° 5	16° 3	63° 5	+1° 1	54° 1	44° 8	18° 7	28° 7	6° 2	51	123° 6	46° 0	60° 2	0° 000	9° 1	14° 7
16	30° 215	71° 6	52° 4	19° 2	62° 1	-0° 2	55° 4	49° 3	12° 8	22° 5	5° 1	63	122° 2	40° 6	60° 2	0° 000	5° 1	14° 6
17	30° 272	80° 5	57° 6	22° 9	67° 4	+5° 3	60° 1	54° 5	12° 9	24° 6	3° 7	63	127° 3	45° 0	60° 2	0° 000	9° 7	14° 5
18	30° 070	83° 3	57° 1	26° 2	69° 5	+7° 6	60° 9	54° 4	15° 1	30° 7	1° 2	59	135° 6	47° 0	60° 3	0° 000	8° 7	14° 5
19	29° 912	66° 2	56° 0	10° 2	61° 5	-0° 2	55° 4	49° 9	11° 6	18° 5	4° 7	66	104° 5	52° 0	60° 3	0° 000	3° 0	14° 4
20	29° 809	68° 4	52° 1	16° 3	60° 1	-1° 4	54° 7	49° 9	10° 2	19° 1	3° 4	69	118° 1	44° 8	60° 4	0° 024	3° 1	14° 3
21	29° 454	64° 6	55° 0	9° 6	59° 8	-1° 5	52° 7	44° 6	15° 2	27° 4	3° 4	59	108° 5	50° 0	60° 3	0° 008	0° 4	14° 3
22	29° 669	62° 0	51° 7	10° 3	56° 8	-4° 3	50° 6	44° 0	12° 8	18° 0	6° 8	62	93° 2	44° 0	60° 3	0° 000	1° 8	14° 2
23	29° 823	61° 6	47° 7	13° 9	54° 2	-6° 7	50° 2	44° 8	9° 4	11° 3	4° 7	74	79° 9	33° 5	60° 2	0° 000	0° 1	14° 2
24	29° 982	71° 0	39° 4	31° 6	56° 9	-3° 9	51° 3	45° 5	11° 4	29° 0	0° 0	66	125° 0	27° 1	60° 2	0° 000	8° 9	14° 1
25	30° 094	69° 6	54° 3	15° 3	61° 4	+0° 7	57° 6	54° 6	6° 8	15° 9	2° 2	78	86° 9	43° 0	60° 1	0° 000	0° 0	14° 0
26	30° 074	73° 0	54° 4	18° 6	64° 2	+3° 5	58° 0	53° 0	11° 2	21° 0	2° 4	67	119° 5	44° 8	60° 0	0° 000	4° 7	14° 0
27	30° 065	70° 6	54° 9	15° 7	61° 7	+1° 1	57° 4	54° 0	7° 7	17° 3	2° 4	75	119° 2	43° 5	59° 8	0° 000	1° 8	13° 9
28	30° 184	71° 5	47° 7	23° 8	59° 0	-1° 4	53° 7	48° 7	10° 3	25° 5	0° 0	69	134° 8	36° 0	59° 8	0° 000	7° 1	13° 8
29	30° 029	67° 9	52° 9	15° 0	62° 2	+1° 9	55° 7	49° 9	12° 3	21° 0	4° 4	65	120° 0	41° 7	59° 8	0° 000	6° 8	13° 8
30	30° 247	69° 6	48° 3	21° 3	58° 4	-1° 7	52° 3	46° 3	12° 1	24° 7	1° 7	64	122° 6	37° 1	59° 8	0° 000	11° 6	13° 7
31	30° 229	81° 4	50° 2	31° 2	66° 1	+6° 2	58° 2	51° 7	14° 4	25° 7	1° 6	60	132° 5	52° 3	60° 0	0° 000	11° 6	13° 7
Means	29° 972	71° 7	53° 2	18° 5	62° 1	+0° 5	56° 2	51° 0	11° 1	20° 9	2° 9	67° 6	119° 3	44° 0	60° 0	Sum 0° 145	5° 9	14° 6
No. of Col. for Ref.	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° 972 in., being 0° 182 in. higher than the average for the 65 years, 1841-1905.

#### TEMPERATURE OF THE AIR

The highest in the month was 83° 3 on August 18; the lowest in the month was 39° 4 on August 24; and the range was 43° 9.

The mean of all the highest daily readings in the month was 71° 7, being 0° 9 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 53° 2, being 0° 4 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 18° 5, being 1° 3 greater than the average for the 65 years, 1841-1905.

The mean for the month was 62° 1, being 0° 5 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	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	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>
Aug. 1	hours	0·1	0·02	0·0	0·00	ENE:NE	ENE:ESE	lbs.	1bs.	miles	b c b c	c St b Frst	b	b c
2		0·3	0·05	0·1	0·02	NE:ENE	E				c St b Cu Frcu	b Cu	b c	b c
3		1·8	0·26	1·7	0·25	E:NE	E:ESE				c St bc	bc b	b c	b c
4		6·8	1·00	6·6	0·98	E:Calm	Calm:S		0·1	0·00	c St m o b Frcu zo	b c zo y	bc b	bc b
5		2·5	0·37	2·1	0·31	Calm:WSW	WSW>NNW		0·2	0·03	b c ASt	c bc b Frst y	b c b	b c b
6		4·2	0·63	3·8	0·56	N:NNE	N:ESE		0·6	0·05	18	b c m	c mb c Acu St y	b w
7		6·5	0·97	6·5	0·97	Calm	Calm:W		0·1	0·00	149	b c w m	c mg m o	c b
8		5·4	0·79	5·4	0·79	WSW	W		2·6	0·31	322	b bc w	bc c St	c b
9		2·9	0·42	2·9	0·42	WSW	SW		2·3	0·28	324	b bc c	c Frst bc	b c
10		7·3	1·00	7·3	1·00	SW:WSW	W:WSW		5·6	0·66	408	c	c ido r c r c	c b w
11		6·9	0·95	6·9	0·95	WSW:WNW	NW:NNW		2·0	0·27	326	b w	b c Stcu Acu y v	c y b
12		5·7	0·79	5·4	0·74	NW:NNW	NW:N		1·5	0·08	196	b bc	b c Ci	b y
13		1·2	0·17	0·8	0·11	Calm:NW	WNW:WSW		1·0	0·05	213	b bc c	c b Acu c Stcu y	c
14		0·6	0·09	0·5	0·07	WSW	WSW		2·3	0·28	318	c	c Stcu	c Stcu r o c
15		3·2	0·44	3·2	0·43	W:Calm	NW:N		1·0	0·10	231	c	c b Acu Ci y	b c y b
16		6·2	0·85	6·1	0·84	Calm	NW:NNW		0·6	0·03	192	b bc	bc b Ci c Frcu zo y	c b zo
17		7·5	1·00	7·5	1·00	NW:NNW	NW:WSW		0·5	0·03	196	b c	c Frcu b y	c ir o c
18		0·0	0·00	0·0	0·00	WSW	W:WNW		2·0	0·16	270	b	b bc Cist b y	bc c r o c
19		1·4	0·18	1·3	0·17	WNW:NNW	NNW:NNE		2·0	0·20	280	c	c Nbst y	c r c r o c
20		0·8	0·11	0·5	0·06	NW:WNW	WSW		3·3	0·29	328	b c bc	bc c Acu y	r c y
21		2·8	0·37	2·8	0·37	WNW	NW		9·3	0·50	406	c	c Stcu y	c Stcu Nbst y
22		6·6	0·88	6·4	0·86	NW:NNW	NNW:NW		5·5	0·41	370	c b c	c Stcu y	c y b
23		6·6	0·88	6·5	0·87	W:NW	NW:NNW		3·9	0·26	319	b c	c Nbst id o	c b
24		4·4	0·55	4·4	0·55	Calm:W:NW	NW:W		0·8	0·07	226	b x m	b Cu Ci m o b y	c bc
25		0·2	0·02	0·0	0·00	Calm:SSW	SSW:S		0·4	0·02	198	b c lu-ha m	c Frst mo c	c
26		1·8	0·22	1·5	0·19	Calm:W	WSW		0·7	0·04	195	c bc	b c Acu y	c b c
27		4·6	0·57	4·0	0·49	WSW	NW:NE		0·9	0·04	208	c m o	c Stcu Acu b c Nbst	bc b
28		3·6	0·45	3·2	0·40	Calm	Calm:SSW		0·2	0·02	164	b w bc m	bc c Acu Ast Frcu y	b c
29		6·3	0·79	6·2	0·78	NNW	NNW:NNE		3·4	0·35	324	c d c	c bc Nbst y	c b
30		5·2	0·65	5·2	0·65	N	Calm:S		1·4	0·03	187	b	b Ci Frcu y	b
31		8·4	0·99	8·3	0·98	SW	WSW:SW		1·7	0·11	255	b	b y	b
Means		3·9	0·53	3·8	0·51		..		..	0·16	259			
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31	

The mean Temperature of Evaporation for the month was 56°·2, being 1°·3 lower than

The mean Temperature of the Dew Point for the month was 51°·0, being 3°·3 lower than

The mean Degree of Humidity for the month was 67°·6, being 9·2 less than

The mean Elastic Force of Vapour for the month was 0·376 in., being 0·048 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°·0.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·404. The maximum daily amount of Sunshine was 11·6 hours on August 12, 30 and 31.

The highest reading of the Solar Radiation Thermometer was 135°·6 on August 18; and the lowest reading of the Terrestrial Radiation Thermometer was 27°·1 on August 24.

The Proportions of Wind referred to the cardinal points were N.25, E.10, S.11, W.36, calm or nearly calm conditions, 18, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 9·3 lbs. on the square foot on August 21. The mean daily Horizontal Movement of the Air for the month was 259 miles; the greatest daily value was 408 miles on August 10, and the least daily value was 149 miles on August 7.

Rain (0·005 in. or over) fell on 3 days in the month, amounting to 0·145 in., as measured by gauge No.6 partly sunk below the ground; being 2·199 in. less than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	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 in 5 inches below the ground	Daily Duration of Sun- shine	Sun above Horizon
		Of the Air				Of Evapo- ration	Of the Dew Point	Of Radiation					Of the Earth 4 ft. below the surface					
		Highest	Lowest	Daily Range	Mean of 24 Hourly Values	Excess above Average of 65 Years	Mean of 24 Hourly Values	Deducted Mean Daily Value	Mean	Greatest	Least		Highest in Sun's Rays	Lowest on the Grass				
Sept. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	in.	o	o	o	o	o	o	o	o	o	o	o	o	o	o	in.	hours	hours
	30.107	81.8	56.7	25.1	68.1	+ 8.3	59.1	51.9	16.2	30.3	6.3	56	136.0	47.1	60.0	0.000	8.8	13.6
	30.056	74.4	55.3	19.1	64.4	+ 4.7	58.5	53.8	10.6	19.3	2.8	69	121.9	42.6	60.0	0.000	7.1	13.5
	30.053	81.0	57.0	24.0	67.5	+ 7.9	60.1	54.4	13.1	26.8	3.4	63	125.0	46.2	60.1	0.000	10.4	13.5
	29.965	85.7	52.9	32.8	69.9	+ 10.4	60.1	52.3	17.6	37.9	0.8	54	138.3	39.1	60.3	0.000	11.8	13.4
	29.947	83.0	54.6	28.4	68.5	+ 9.1	60.1	53.6	14.9	31.5	1.5	59	132.6	44.4	60.3	0.000	11.1	13.3
	30.032	74.9	53.0	21.9	63.9	+ 4.7	56.6	50.3	13.6	28.0	4.3	61	123.0	40.3	60.3	0.000	10.9	13.3
	29.873	78.0	49.7	28.3	62.9	+ 3.9	55.3	48.4	14.6	30.4	1.6	59	130.8	37.0	60.4	0.000	10.6	13.2
	29.633	67.5	54.2	13.3	60.0	+ 1.2	53.8	48.0	12.0	24.1	4.3	64	118.9	48.5	60.3	0.000	1.8	13.1
	29.809	59.7	42.3	17.4	53.6	- 5.0	47.7	40.7	12.9	20.5	2.3	62	129.2	29.5	60.3	0.015	3.0	13.1
	29.853	66.6	43.4	23.2	56.0	- 2.4	52.1	48.3	7.7	13.3	3.7	75	93.0	30.6	59.6	0.000	0.7	13.0
	30.040	60.6	47.4	13.2	53.6	- 4.5	46.5	36.9	16.7	30.6	6.2	54	116.6	41.5	59.5	0.000	8.1	12.9
	29.997	66.0	41.1	24.9	55.4	- 2.6	49.8	43.8	11.6	18.0	3.8	65	125.0	28.8	59.8	0.000	3.4	12.9
	29.539	66.7	49.0	17.7	58.8	+ 1.0	55.2	52.1	6.7	14.5	1.4	78	115.7	42.7	59.9	0.278	2.4	12.8
	29.370	64.3	46.3	18.0	53.8	- 3.9	48.7	43.0	10.8	19.1	5.6	67	126.3	40.0	59.7	0.002	3.6	12.8
	29.338	59.8	46.0	13.8	52.7	- 4.9	48.3	43.4	9.3	18.0	2.6	70	108.9	35.7	59.4	0.000	5.3	12.7
	29.519	65.1	41.9	23.2	53.8	- 3.7	52.3	50.9	2.9	4.5	1.3	90	72.8	31.6	59.4	0.064	0.1	12.6
	29.432	67.3	55.0	12.3	62.2	+ 5.0	56.0	50.5	11.7	23.4	2.3	66	121.2	49.6	59.3	0.066	6.9	12.6
	29.724	67.2	52.7	14.5	58.5	+ 1.6	52.9	47.5	11.0	22.0	3.4	67	124.4	47.0	59.0	0.000	7.7	12.5
	29.548	66.2	52.6	13.6	57.1	+ 0.6	54.7	52.7	4.4	14.0	1.2	85	114.1	46.0	59.0	0.983	2.7	12.4
	29.434	65.3	50.8	14.5	57.0	+ 0.8	53.9	51.1	5.9	14.6	0.8	81	120.8	46.1	59.0	0.005	7.0	12.4
	29.627	63.8	45.3	18.5	54.0	- 1.9	51.3	48.7	5.3	13.9	0.0	82	118.5	35.2	58.8	0.000	3.5	12.3
	29.729	64.4	45.0	19.4	55.8	+ 0.2	54.1	52.6	3.2	5.1	0.0	89	83.6	33.2	58.7	0.013	0.7	12.2
	29.799	65.4	49.1	16.3	56.9	+ 1.5	51.7	46.5	10.4	22.3	1.2	68	128.0	36.0	58.7	0.000	10.0	12.2
	29.894	59.0	42.7	16.3	50.9	- 4.4	47.0	42.5	8.4	17.9	0.0	73	95.4	29.5	58.4	0.000	2.3	12.1
	30.080	57.7	43.8	13.9	50.4	- 4.8	46.2	41.2	9.2	20.3	2.4	70	116.9	30.0	58.3	0.000	4.0	12.0
	30.216	58.6	39.0	19.6	48.5	- 6.7	45.1	40.9	7.6	15.1	0.7	75	114.4	26.0	58.0	0.000	0.6	12.0
	30.077	67.0	36.2	30.8	53.2	- 1.9	48.4	43.0	10.2	20.8	0.5	69	125.6	26.3	58.0	0.000	4.4	11.9
	29.954	58.6	45.0	13.6	52.8	- 2.1	47.8	42.1	10.7	22.2	4.2	67	113.4	42.2	57.7	0.000	7.8	11.8
	30.105	56.0	44.2	11.8	49.3	- 5.4	46.3	42.7	6.6	13.7	3.1	78	99.4	35.9	57.4	0.000	0.6	11.8
	30.097	55.3	44.2	11.1	50.3	- 4.1	46.0	40.9	9.4	15.3	2.1	70	87.9	36.2	57.3	0.000	0.2	11.7
Means	29.828	66.9	47.9	19.0	57.3	+ 0.1	52.2	47.2	10.2	20.3	2.5	69.5	115.9	38.2	59.2	Sum 1.426	5.3	12.7
No. of Col. for Ref.	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 29.828 in., being 0.010 in. higher than the average for the 65 years, 1841-1905.

#### TEMPERATURE OF THE AIR

The highest in the month was 85°.7 on September 4; the lowest in the month was 36°.2 on September 27; and the range was 49°.5.

The mean of all the highest daily readings in the month was 66°.9, being 0°.7 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 47°.9, being 1°.8 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 19°.0, being 2°.5 greater than the average for the 65 years, 1841-1905.

The mean for the month was 57°.3, being 0°.1 higher than the average for the 65 years, 1841-1905.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

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TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS				Robin- son's	CLOUDS AND WEATHER								
	Polaris		δ URSAE MINORIS		OSLER'S			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>	
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	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>				
Sept. 1	hours	hours	hours	hours	WSW:W	W:WNW	lbs.	lbs.	miles	b c	c Acu b c Cicu y	c b y	b					
2	4.3	0.50	4.3	0.50	N:Calm	NNW:Calm	0.7	0.09	250	b c	Cist y	Cist Ci Frcuso-ha y	c bc					
3	8.4	0.99	8.3	0.98	Calm	Calm:SW	1.0	0.03	180	b c	c z b Ci y	b Ci Frcu y	c b					
4	8.5	1.00	8.5	1.00	Calm:SSW	SSW:S	0.2	0.01	138	b w	b y	b Acu y	b					
5	8.5	1.00	8.5	1.00	Calm	Calm:NNW:NNE	1.7	0.11	225	b	b Cist zo y	b Ci y	b					
6	8.5	1.00	8.5	1.00	NE:NNE	Calm:NW	0.7	0.05	190	b	b Ci Cist y	b Ci y	b					
7	6.4	0.71	6.0	0.67	WSW	WSW	0.5	0.02	178	b w	b y	b y	b					
8	..	..	..	..	WSW:NNW	N: N	2.0	0.14	286	b	b c p y	c y	c y					
9	6.7	0.75	6.6	0.74	N:NNW	N:NNW:Calm	2.2	0.16	283	c tlro bc c	c Frcu y	c bc b y	b					
10	4.7	0.52	3.9	0.44	Calm:WSW	WSW:NNW	2.2	0.08	239	b c	dd c St Nbst	Nbst Cumb r o c	c b					
11	8.1	0.90	7.9	0.88	NNW:N	NNW:N	2.0	0.18	299	b	b Cu Frcu bc y	bc Frcu c y	c y bc					
12	0.5	0.06	0.4	0.05	SW	WSW:SW	3.6	0.40	333	bc b c	c Acu Frcu Ci y	c Nbst y	c do c					
13	9.0	1.00	9.0	1.00	SW	WSW:W	5.0	0.45	374	c id r R	rrr c Frcu Ast	c ro c r b	b					
14	1.5	0.15	1.0	0.10	WSW:W	WSW:W	2.4	0.24	324	b c	c Nbst Cu Cumb y	c y	c d c					
15	8.5	0.89	7.5	0.79	NW	WNW	3.0	0.18	265	c do c b	c b c Nbst Frcu y	c ir o	c b					
16	0.8	0.09	0.5	0.05	SW:SSW	SW	3.0	0.22	291	b	c d o rr	c bc b c	c bc b c					
17	7.4	0.77	6.8	0.72	SW:WSW	WSW	10.0	2.18	538	c rr	rr bc Frcu y q	bc Frcu Cu y q	bc b					
18	1.4	0.15	1.4	0.15	WSW:W	WSW:SW	2.7	0.41	349	b c b	b Frcu bc Cu Acu y	c Stcu Acu so-ha y	c rR					
19	0.0	0.00	0.0	0.00	SSW:SW	SW	4.3	0.47	343	c dd c	c Nbst Cumb Ast rr c so-ha	c bc Acu Cu Nbst r c	bc c					
20	4.9	0.52	4.8	0.50	WSW	WSW:SW	4.7	0.38	348	c	c Frcu Acu Nbst r c	bc Acu Cu r o bc y	bc c					
21	10.0	0.98	9.9	0.97	WSW:Calm	Calm	0.0	0.00	149	b c	b c Stcu m f b Frcu	b c	b w					
22	9.1	0.89	9.0	0.88	S:SSE	SSW:SW:WSW	2.0	0.10	271	b bc w	c Nbst ido c	ir c b						
23	10.3	1.00	10.3	1.00	WSW:W	W:WSW	1.6	0.18	292	b c b w	b bc Frcu Ci Cu	b						
24	8.5	0.82	8.0	0.78	WSW:Calm	Calm:NNW	0.8	0.03	197	b w m	bc c Ast so-ha c y	c Frcu Ci b y	b c					
25	9.1	0.88	8.8	0.85	N	NNE:Calm	1.7	0.17	268	c b	c Acu Cicu Frst y	c Stcu b y	b c					
26	8.5	0.83	8.5	0.83	Calm	NNE:Calm	1.4	0.05	178	b w x	c f c Ast	c Ast Stcu y	c b m					
27	0.8	0.07	0.3	0.03	Calm:SW	SW:W:NW	1.6	0.14	270	b w x m	c m x c Ci Acu y	c Ci Ast y	c					
28	7.5	0.71	7.4	0.70	NW:NNW	N:NNW	3.6	0.25	327	c b	b Frcu y	bc c bc c Stcu y	b bc z					
29	3.2	0.31	2.8	0.27	NNW:N	N:NNE	2.5	0.23	311	bc c do c w	c Stcu Frst	c bc c Stcu iro	c b c					
30	7.7	0.73	6.8	0.65	NNE:NE	NE	1.0	0.07	244	c b c	c Ast St v	c bc y	bc c b					
Means	6.2	0.66	6.0	0.63	..	..	..	0.24	274									
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31					

The mean Temperature of Evaporation for the month was  $52^{\circ}2$ , being  $1^{\circ}9$  lower thanThe mean Temperature of the Dew Point for the month was  $47^{\circ}2$ , being  $3^{\circ}9$  lower thanThe mean Degree of Humidity for the month was  $69^{\circ}5$ , being  $10^{\circ}4$  less thanThe mean Elastic Force of Vapour for the month was  $0.326$  in., being  $0.063$  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 6.0.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.415. The maximum daily amount of Sunshine was 11.8 hours on September 4.

The highest reading of the Solar Radiation Thermometer was  $136^{\circ}3$  on September 4; and the lowest reading of the Terrestrial Radiation Thermometer was  $26^{\circ}0$  on September 26.

The Proportions of Wind referred to the cardinal points were N.25, E.3, S.19, W.36, calm or nearly calm conditions, 17, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was  $10^{\circ}0$  lbs. on the square foot on September 17. The mean daily Horizontal Movement of the Air for the month was 274 miles; the greatest daily value was 538 miles on September 17, and the least daily value was 138 miles on September 3.Rain ( $0.005$  in. or over) fell on 7 days in the month, amounting to  $1.426$  in., as measured by gauge No.6 partly sunk below the ground; being  $0.722$  in. less than the average fall for the 65 years, 1841-1905.

than the average for the 65 years, 1841-1905.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER Mean of 24 Hourly Values (Corrected 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	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	Mean	Greatest	Least		Highest in Sun's Ray's	Lowest on the Grass				
Oct. 1	in.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	in.	hours	hours
2	30°015	56°1	41°3	14°8	49°0	-5°1	44°0	37°5	11°5	20°8	3°5	64	117°5	26°9	57°1	0°000	6°5	11°6
3	29°934	58°8	45°4	13°4	51°4	-2°3	45°4	37°7	13°7	21°7	6°3	60	120°1	37°9	57°0	0°000	7°3	11°6
4	29°753	52°4	47°0	5°4	49°7	-3°6	48°1	46°3	3°4	8°8	0°0	88	54°4	39°2	56°7	0°196	0°0	11°5
5	29°715	58°1	46°8	11°3	52°9	-0°1	51°0	49°2	3°7	8°5	0°0	87	103°5	38°9	56°8	0°099	3°0	11°4
6	29°823	61°2	49°9	11°3	56°1	+3°3	52°0	47°9	8°2	14°7	3°6	75	104°6	43°8	56°6	0°000	3°8	11°4
7	29°480	61°1	58°0	3°1	59°9	+7°4	57°5	55°6	4°3	7°5	2°0	86	75°6	52°7	56°6	0°145	0°0	11°3
8	29°627	60°2	44°5	15°7	53°8	+1°5	49°0	43°7	10°1	19°4	1°5	69	115°3	34°8	56°3	0°000	7°9	11°3
9	29°632	61°5	43°3	18°2	52°7	+0°7	50°2	47°7	5°0	11°8	1°2	83	104°1	33°6	56°4	0°000	2°8	11°2
10	29°176	61°8	48°6	13°2	55°1	+3°5	51°1	47°2	7°9	19°4	1°2	75	115°9	40°8	56°4	0°213	6°6	11°1
11	29°404	56°6	41°6	15°0	49°1	-2°2	46°3	43°0	6°1	9°5	1°4	80	109°7	33°0	56°2	0°140	3°1	11°1
12	29°798	56°2	35°3	20°9	44°7	-6°2	42°7	40°1	4°6	11°9	0°0	84	101°1	26°8	56°0	0°000	4°5	11°0
13	29°948	58°9	34°4	24°5	45°7	-4°9	43°3	40°2	5°5	15°0	0°0	81	108°5	25°3	56°0	0°000	6°7	10°9
14	29°765	60°9	41°7	19°2	51°3	+1°0	48°9	46°3	5°0	17°4	0°0	83	115°8	27°1	55°6	0°000	7°9	10°9
15	29°579	54°1	47°4	6°7	50°9	+0°8	49°5	48°1	2°8	5°5	0°6	90	83°5	35°1	55°4	0°000	0°9	10°8
16	29°699	60°8	48°4	12°4	54°1	+4°2	52°0	50°0	4°1	7°6	1°2	86	105°9	36°1	55°3	0°072	2°0	10°7
17	29°701	57°1	49°4	7°7	53°4	+3°6	52°3	51°3	2°1	4°2	0°0	92	74°4	41°1	55°0	0°710	0°0	10°7
18	29°637	61°3	45°2	16°1	52°7	+3°1	51°4	50°1	2°6	9°2	0°0	91	104°5	39°4	55°0	0°000	4°7	10°6
19	29°763	53°6	42°9	10°7	49°3	-0°0	48°6	47°9	1°4	3°1	0°0	95	63°1	32°2	54°9	0°084	0°0	10°6
20	29°713	60°4	51°4	9°0	55°4	+6°3	54°3	53°4	2°0	6°4	0°6	93	93°5	43°2	54°9	0°026	3°6	10°5
21	29°632	62°1	49°4	12°7	55°0	+6°2	53°0	51°1	3°9	9°8	0°0	87	100°9	41°2	54°9	0°004*	7°0	10°4
22	29°572	56°8	44°2	12°6	52°1	+3°5	50°9	49°7	2°4	4°9	0°0	91	67°3	34°0	54°9	0°092	0°0	10°4
23	29°621	56°8	42°1	14°7	48°4	+0°1	47°4	46°3	2°1	9°0	0°0	92	96°3	31°3	54°8	0°000	4°5	10°3
24	29°657	52°5	41°9	10°6	47°7	-0°4	46°5	45°1	2°6	8°1	0°0	91	56°5	31°1	54°7	0°057	0°0	10°2
25	29°672	48°6	41°5	7°1	46°4	-1°5	42°9	38°3	8°1	12°0	5°7	73	54°7	32°8	54°6	0°000	0°0	10°2
26	29°678	50°9	37°6	13°3	44°0	-3°7	41°2	37°3	6°7	13°9	1°2	77	96°4	28°6	54°2	0°012	3°9	10°1
27	29°732	48°0	40°1	7°9	43°2	-4°4	39°8	34°8	8°4	19°9	3°1	72	95°9	31°2	54°0	0°000	1°9	10°0
28	29°868	49°6	38°4	11°2	43°1	-4°4	40°5	36°7	6°4	12°6	2°3	79	85°0	31°1	53°7	0°000	1°6	10°0
29	29°972	48°8	38°9	9°9	42°3	-5°1	40°7	38°5	3°8	11°3	0°7	86	75°6	30°1	53°5	0°000	1°1	9°9
30	29°927	48°4	28°9	19°5	38°4	-8°9	35°5	30°6	7°8	18°4	0°5	73	96°7	18°8	53°2	0°000	7°6	9°9
31	29°747	50°8	27°6	23°2	40°6	-6°6	37°9	33°6	7°0	17°0	1°0	76	60°5	16°8	53°0	0°040	0°0	9°8
Means	29°698	56°2	43°2	13°0	49°8	-0°2	47°3	44°4	5°4	11°8	1°2	82°2	91°4	34°0	55°2	Sum 2°365	3°2	10°7
No. of Col. for Ref.	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°698 in., being 0°030 in. lower than the average for the 65 years, 1841-1905.

\* Rainfall (Column 16). The amount entered on October 20 is derived from dew.

#### TEMPERATURE OF THE AIR

The highest in the month was 62°1 on October 20; the lowest in the month was 27°6 on October 30; and the range was 34°5.

The mean of all the highest daily readings in the month was 56°2, being 0°.8 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 43°2, being 0°.6 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 13°0, being 0°.2 less than the average for the 65 years, 1841-1905.

The mean for the month was 49°8, being 0°.2 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					Robin- son's	CLOUDS AND WEATHER				
	Polaris		δ URSA MINORIS		OSLER'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											
Oct. 1	hours	hours	lbs.	lbs.	miles										
2	2.7 0.26	2.2 0.21	NE	NE	2.1 0.17	286	b w x	b c bc Frcu Stcu Acu y	c Stcu Frcu Acu y	c b					
3	2.6 0.25	2.2 0.21	NNE: NE	NNE	2.3 0.30	318	b c bc Acu Ci Frcu y	bc c Stcu Frcu y	bc c						
4	0.4 0.04	0.3 0.03	NNE	Calm	1.0 0.10	225	c rr	rr dodo m	dd m c	c					
5	5.3 0.50	4.0 0.38	Calm: WSW	SSW: SW	4.3 0.34	259	c bc Ci Acu Frst c ro	c bc Ci Acu Frst c ro	r dd c						
	0.0 0.00	0.0 0.00	SW: WSW	WSW: SW	3.7 0.51	378	c b dc	bc c Stcu Frst Ci	c bc c y	c					
6	1.9 0.17	0.9 0.08	SW	SW	10.0 1.55	489	c r	rr c ir o do Nbst	dodo r	rd c b bc					
7	11.0 1.00	11.0 1.00	WNW: NW	W: WSW: SW	2.5 0.20	318	bc c	c bc Frst Acu Cu y	bc b Frctu Ci y	b					
8	1.9 0.18	1.0 0.09	SSW	SSW: SSE	3.3 0.20	311	b c bc w	b b c Frctu Ci Frst ro c	c Ci Frctu Acu	c bc					
9	9.7 0.88	9.7 0.88	SE: SW	SW: SSW	10.0 1.32	441	bc c rr	r ir bc po	bc Frctu Ci Cu y p	p b					
10	10.7 0.97	10.7 0.97	SW: SSW	SSW	4.3 0.14	305	b	b c Ast Nbst p Acu Frst	c rr c Ci Cumb rr b	b w					
11	10.1 0.92	9.3 0.84	SW: Calm	Calm	0.3 0.01	139	b x	b f x	b bc Frcu	b f					
12	8.1 0.70	8.1 0.70	Calm: SSE	Calm: SSE	0.3 0.01	148	b f x	b f b Frcu	bc c Frcu	c b c					
13	4.4 0.38	3.1 0.27	SSE: E	SE: ESE: E	1.6 0.16	256	c m x d	c b c St m bc	c Cu Frcu	c b c lu-ha					
14	11.2 0.97	11.2 0.97	ESE: E	SE: SSE	1.2 0.09	237	c w m o	c Acu Ast St	c Nbst dodo c	bc b					
15	2.5 0.21	1.6 0.14	SSE: S	S: SSW	2.2 0.14	275	b bc r	r c St Stcu Acu	c rr c Stcu	c					
16	2.5 0.22	2.5 0.22	SE: E	ENE: E: Calm	1.4 0.04	207	c f w	c Ast Acu f m o	c Nbst r o rr	rr					
17	0.0 0.00	0.0 0.00	SSW: SW	SSW: Calm	0.3 0.02	202	c m o	c bc c Ast Frst Nbst	bc b Frctu	b w					
18	11.1 0.92	11.1 0.92	Calm: NNE	NNE: ENE	1.2 0.06	221	b f w	Fe c Stcu m	c Stcu m ido	ido rro r m					
19	3.0 0.25	3.0 0.25	E: ENE	E: ENE	2.0 0.20	289	ff	c Ast b Frst	b bc b	b					
20			Calm: E	ENE: Calm	0.8 0.05	221	o	b Frst Ci m m o	b m m o	dc c m					
21	4.5 0.37	1.9 0.16	SSE: W	SW: Calm	0.7 0.02	187	c m	c Nbst r ir m m o	c r c b m f	b f					
22	2.6 0.22	2.6 0.22	Calm	Calm: NE	0.0 0.00	159	ff	Fe b f	b f m o Ci Acu	b o m f					
23	0.0 0.00	0.0 0.00	NE	NE: ENE	2.9 0.19	316	o	dodo f m o	o m o dd	o					
24	10.0 0.83	9.2 0.77	NE	NE	2.5 0.33	367	c m o	c Acu Stcu	c Stcu	b					
25	2.6 0.22	2.2 0.18	NE: NNE	NE	2.4 0.15	278	b c w b	b Acu c Stcu Frst	roro bc	roro bc					
26	1.9 0.15	0.3 0.02	NE	NE: N	1.9 0.18	279	c	c b c Stcu y	bc c Cu Frcu m	c b c					
27	3.0 0.24	1.9 0.15	N: Calm	NNW	0.5 0.03	205	c w m o	c Stcu Acubc Frcu m o	c Stcu	c b m					
28	4.6 0.36	3.8 0.31	Calm	ENE: E	0.7 0.01	179	c m w	c Stcu m	b Frcu m o	b m o					
29	12.5 1.00	12.5 1.00	Calm: SE	SE: SSE	0.9 0.02	202	b x	b Frcu m o	bc c Ast Stcu y m do	c Ast Nbst	c r c				
30	1.0 0.08	0.6 0.05	SSE	S: SSW	3.4 0.30	307	b x	c Ast Acu Ci Nbst r RR	rr o R q ro	q bc					
31	9.8 0.78	9.5 0.76	SSW	SSW: W: WSW	11.0 1.10	423	c								
Means	5.1 0.44	4.5 0.39	..	..	..	272									
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31		

The mean Temperature of Evaporation for the month was  $47^{\circ}3$ , being  $0^{\circ}6$  lower than

The mean Temperature of the Dew Point for the month was  $44^{\circ}4$ , being  $1^{\circ}2$  lower than

The mean Degree of Humidity for the month was  $82^{\circ}2$ , being  $2^{\circ}7$  less than

The mean Elastic Force of Vapour for the month was  $0.294$  in., being  $0.014$  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  $0.299$ . The maximum daily amount of Sunshine was  $7.9$  hours on October 7 and 13.

The highest reading of the Solar Radiation Thermometer was  $120^{\circ}1$  on October 2; and the lowest reading of the Terrestrial Radiation Thermometer was  $16^{\circ}8$  on October 30.

The Proportions of Wind referred to the cardinal points were N.17, E.25, S.27, W.13, calm or nearly calm conditions, 18, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was  $11.0$  lbs. on the square foot on October 31. The mean daily Horizontal Movement of the Air for the month was 272 miles; the greatest daily value was 489 miles on October 6, and the least daily value was 139 miles on October 11.

Rain ( $0.005$  in. or over) fell on 14 days in the month, amounting to  $2.365$  in., as measured by gauge No.6 partly sunk below the ground; being  $0.417$  in. less than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER Mean of 24 Hourly Values (corrected 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	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	Mean	Greatest	Least	Highest in Sun's Ray's	Lowest on the Grass					
	in.	o	o	o	o	o	o	o	o	o	o	o	o	o	in.	hours	hours	
Nov. 1	29.659	58.1	44.5	13.6	50.4	+ 3.4	47.5	44.3	6.1	16.2	1.3	80	107.7	37.9	52.5	0.200	7.1	9.7
2	29.607	56.7	45.6	11.1	52.1	+ 5.3	50.1	48.1	4.0	9.4	1.7	86	89.5	41.2	52.5	0.157	1.5	9.6
3	29.275	57.1	46.7	10.4	51.3	+ 4.7	50.5	49.7	1.4	2.8	0.0	94	55.3	46.9	52.3	1.605	0.0	9.6
4	29.229	59.9	42.7	17.2	50.9	+ 4.5	49.5	48.1	2.8	9.5	0.4	90	89.5	37.7	52.3	0.281	2.9	9.5
5	29.550	53.9	35.5	18.4	46.0	- 0.1	44.3	42.2	3.8	8.2	0.0	87	92.5	27.6	52.2	0.253	4.5	9.5
6	29.331	49.9	42.8	7.1	45.4	- 0.4	43.8	41.7	3.7	11.9	0.0	87	56.9	34.6	52.1	0.259	0.0	9.4
7	29.914	49.8	37.1	12.7	44.3	- 1.1	42.3	39.7	4.6	8.1	0.4	84	91.6	27.2	52.0	0.000	2.5	9.4
8	30.021	50.6	34.4	16.2	41.6	- 3.4	39.7	37.0	4.6	12.9	0.0	83	84.9	24.5	51.9	0.015	4.7	9.3
9	29.485	49.4	43.6	5.8	46.1	+ 1.5	44.4	42.3	3.8	7.9	1.2	87	57.0	32.0	51.7	0.087	0.0	9.2
10	29.355	51.1	36.7	14.4	45.5	- 0.8	41.8	39.5	4.0	8.3	0.0	86	90.9	29.2	51.3	0.070	2.7	9.2
11	29.221	56.8	36.5	20.3	45.3	+ 1.3	43.7	41.6	3.7	7.5	1.9	87	56.4	29.1	51.3	0.868	0.0	9.1
12	28.749	54.0	45.5	8.5	48.7	+ 5.0	44.7	39.7	9.0	13.5	3.6	71	66.0	40.6	51.0	0.000	0.8	9.1
13	28.993	50.1	39.6	10.5	46.1	+ 2.6	43.1	39.2	6.9	10.7	1.8	77	63.8	36.4	50.8	0.937	0.0	9.0
14	29.058	47.7	33.4	14.3	40.8	- 2.5	39.2	37.0	3.8	8.2	0.0	86	77.8	30.2	50.6	0.053	5.8	8.9
15	29.155	49.3	30.3	19.0	41.2	- 1.9	39.3	36.6	4.6	10.2	0.0	83	90.3	23.1	50.3	0.054	6.0	8.9
16	28.768	47.0	42.1	4.9	44.6	+ 1.8	43.5	42.2	2.4	3.8	1.4	91	63.4	35.1	50.0	0.445	0.4	8.8
17	28.693	50.0	38.4	11.6	43.7	+ 1.1	41.7	39.0	4.7	14.3	1.0	84	86.5	32.5	49.7	0.666	5.1	8.8
18	28.931	44.6	39.9	4.7	42.9	+ 0.5	42.4	41.7	1.2	2.4	0.0	96	51.7	34.3	49.5	0.402	0.0	8.7
19	29.403	45.3	37.0	8.3	42.9	+ 0.6	41.8	40.3	2.6	4.4	0.4	91	55.5	27.5	49.3	0.000	0.0	8.7
20	29.397	55.6	40.0	15.6	48.5	+ 6.3	46.2	45.6	4.9	12.6	1.5	83	87.8	30.5	49.2	0.144	2.5	8.6
21	29.622	60.6	47.0	13.6	54.8	+ 12.7	53.1	51.5	3.3	8.3	0.8	89	86.3	44.0	49.2	0.153	2.0	8.6
22	29.852	55.6	35.0	20.6	47.4	+ 5.3	44.7	41.5	5.9	11.2	1.6	79	72.8	25.8	49.1	0.204	2.3	8.5
23	30.224	49.6	31.9	17.7	42.0	- 0.0	40.8	39.2	2.8	6.7	0.0	90	62.5	22.2	49.2	0.000	0.6	8.5
24	30.255	53.1	43.7	9.4	48.5	+ 6.5	46.9	45.1	3.4	8.0	1.3	88	74.5	32.6	49.1	0.011	3.7	8.4
25	30.340	50.3	39.2	11.1	45.3	+ 3.4	44.4	43.4	1.9	4.6	0.0	93	61.7	28.1	49.0	0.000	0.0	8.4
26	30.185	51.9	43.3	8.6	48.3	+ 6.5	45.7	42.7	5.6	8.6	2.3	80	71.8	36.4	49.0	0.000	0.7	8.4
27	30.008	51.0	39.2	11.8	46.3	+ 4.6	43.0	38.7	7.6	15.3	2.6	75	71.9	32.2	49.0	0.000	3.8	8.4
28	30.319	42.9	33.2	9.7	38.1	- 3.4	34.8	29.2	8.9	14.5	5.1	69	64.8	24.7	48.9	0.000	5.2	8.3
29	30.346	42.1	31.1	11.0	36.5	- 4.7	34.4	30.7	5.8	9.9	1.6	79	62.5	22.7	48.8	0.000	2.6	8.3
30	30.444	32.7	25.4	7.3	30.0	- 11.0	29.3	28.2	1.8	2.1	0.0	92	35.8	17.2	48.2	0.000	0.0	8.2
Means	29.580	50.9	38.7	12.2	45.1	+ 1.6	43.2	40.8	4.3	9.1	1.1	84.9	72.7	31.5	50.4	Sum 6.864	2.3	8.9
No. of Col. for Ref.	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 29.580 in., being 0.185 in. lower than the average for the 65 years, 1841-1905.

#### TEMPERATURE OF THE AIR

The highest in the month was 60°.6 on November 21; the lowest in the month was 25°.4 on November 30; and the range was 35°.2.

The mean of all the highest daily readings in the month was 50°.9, being 2°.0 higher than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 38°.7, being 0°.3 higher than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 12°.2, being 1°.7 greater than the average for the 65 years, 1841-1905.

The mean for the month was 45°.1, being 1°.6 higher than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS.

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETERS					CLOUDS AND WEATHER				
	Polaris		δ URSA MINORIS		OSLER'S			Robinson's	Horizontal Movement of the Air					
	Duration	Fraction of Total Exposure	Duration	Fraction of Total Exposure	General Direction		Pressure on the Square Foot			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								
Nov. 1	hours	4 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 35 <sup>s</sup>	1 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 15 <sup>s</sup>	WSW:SW	SW:WSW	lbs.	lbs.	miles	b b c	bc Ci Acu Frcu y	bc c Ci Ast so-ha	c rrR c
2	0 <sup>h</sup> 0 <sup>m</sup>	0^{h} 0^{m}	0^{h} 0^{m}	0^{h} 0^{m}	0^{h} 0^{m}	WSW	SW	12 <sup>h</sup>	1 <sup>h</sup> 30 <sup>s</sup>	319	b c P	bc Cist Ast so-ha	c Ast rr c q	c rr q
3	0 <sup>h</sup> 0 <sup>m</sup>	0^{h} 0^{m}	0^{h} 0^{m}	0^{h} 0^{m}	0^{h} 0^{m}	Calm: ENE	5 <sup>h</sup> 4 <sup>m</sup>	0 <sup>h</sup> 47 <sup>s</sup>	443	443	rr	rr Nbst m	rr c	Rr
4	2 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 19 <sup>s</sup>	2 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 19 <sup>s</sup>	0 <sup>h</sup> 19 <sup>s</sup>	Calm: SW	SW:NWW	5 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 65 <sup>s</sup>	246	r c rr	rr c Po bc Frcu	c Pt1 do c	c
5						WSW:S	SE:SSE	2 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 13 <sup>s</sup>	337	c b x m o	dc Ci Frcu Acu c Frst	c p bc Frcu Cist c	c rr c
6	2 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 16 <sup>s</sup>	0 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 06 <sup>s</sup>	0 <sup>h</sup> 06 <sup>s</sup>	SW:WSW	NW:Calm: N	3 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 46 <sup>s</sup>	337	c	rr Frst Nbst c	c Frst Ast Nbst roro	c bc
7	10 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 83 <sup>s</sup>	1 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 13 <sup>s</sup>	0 <sup>h</sup> 13 <sup>s</sup>	N	N: NW	1 <sup>h</sup> 7 <sup>m</sup>	0 <sup>h</sup> 10 <sup>s</sup>	268	bc	bc C Acu Frcu Cicu	c Frst Ast Frcu	c b m m o
8	3 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 26 <sup>s</sup>	1 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 10 <sup>s</sup>	0 <sup>h</sup> 10 <sup>s</sup>	SW:WSW	SW:S	0 <sup>h</sup> 5 <sup>m</sup>	0 <sup>h</sup> 02 <sup>s</sup>	230	b x f	b bc f prhn b m o c	c Ast Frcu b	c r bc b
9	5 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 40 <sup>s</sup>	4 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 33 <sup>s</sup>	0 <sup>h</sup> 33 <sup>s</sup>	S	SSE:SW	3 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 39 <sup>s</sup>	331	b c dodo	c Ast Acu Frst	do ro Nbst c rr	rr c b
10	12 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 92 <sup>s</sup>	11 <sup>h</sup> 9 <sup>m</sup>	0 <sup>h</sup> 91 <sup>s</sup>	0 <sup>h</sup> 91 <sup>s</sup>	SW	WSW	3 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 15 <sup>s</sup>	301	b m	bCiAcu prhn c Nbstr m o	ror c ro c	b
11	3 <sup>h</sup> 9 <sup>m</sup>	0 <sup>h</sup> 30 <sup>s</sup>	3 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 28 <sup>s</sup>	0 <sup>h</sup> 28 <sup>s</sup>	WSW:SW	SSW:SW	9 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 90 <sup>s</sup>	445	b	bc c Ast Acuso-ha prhn do	do rr Nbst q	rr c rrq
12	9 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 74 <sup>s</sup>	8 <sup>h</sup> 9 <sup>m</sup>	0 <sup>h</sup> 68 <sup>s</sup>	0 <sup>h</sup> 68 <sup>s</sup>	SW:WSW	SSW:SW	12 <sup>h</sup> 5 <sup>m</sup>	2 <sup>h</sup> 58 <sup>m</sup>	649	c bc q	c b Ci Cist Ast so-ha	c b bc q b	r RRR q
13	0 <sup>h</sup> 0 <sup>m</sup>	SW:Calm: NE	6 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 63 <sup>s</sup>	382	b	b c Ast Cist so-ha	c Ast so-ha o r	b mo					
14	13 <sup>h</sup> 0 <sup>m</sup>	1 <sup>h</sup> 00 <sup>s</sup>	13 <sup>h</sup> 0 <sup>m</sup>	1 <sup>h</sup> 00 <sup>s</sup>	1 <sup>h</sup> 00 <sup>s</sup>	N:NW:SW	SW:WSW	15 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 63 <sup>s</sup>	321	rr o q s c	b Stcu Cist Ci m	bc Frcu Ci mo m	c rorro c
15	1 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 10 <sup>s</sup>	0 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 06 <sup>s</sup>	0 <sup>h</sup> 06 <sup>s</sup>	SW:SSW	SSE:S	2 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 05 <sup>s</sup>	253	d m o x	b mc Ci Cist so-ha b	b Ci Cist Frcu c	r r c
16	0 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 06 <sup>s</sup>	0 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 01 <sup>s</sup>	0 <sup>h</sup> 01 <sup>s</sup>	S:SSW	SSW:SE:ENE	1 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 04 <sup>s</sup>	253	c rr	rr c Cist Nbst rr t c	c ir o c r	c rrRr
17	0 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 00 <sup>s</sup>	0 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 00 <sup>s</sup>	0 <sup>h</sup> 00 <sup>s</sup>	SSW:Calm	SSW:Calm	2 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 06 <sup>s</sup>	260	c rR m bc	bc b Frcu Acu Nbst r c	c m	c m
18	1 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 07 <sup>s</sup>	1 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 07 <sup>s</sup>	0 <sup>h</sup> 07 <sup>s</sup>	Calm: SW	Calm: NNW	0 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 00 <sup>s</sup>	180	c m	c Acu Stcu Nbst r o m	rr Nbst m	b c
19	8 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 61 <sup>s</sup>	8 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 61 <sup>s</sup>	0 <sup>h</sup> 61 <sup>s</sup>	N:NW	W:SW:SSW	0 <sup>h</sup> 1 <sup>m</sup>	0 <sup>h</sup> 00 <sup>s</sup>	242	c m	c Nbst m	c Nbst Acu Cicu m bc	b bc c
20	5 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 37 <sup>s</sup>	4 <sup>h</sup> 4 <sup>m</sup>	0 <sup>h</sup> 33 <sup>s</sup>	0 <sup>h</sup> 33 <sup>s</sup>	SSW:SW	WSW:SW	5 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 61 <sup>s</sup>	412	b bc c	dodo r ir c Stcu Frcu	dc Ci Cist Frcu b	c ido
21	0 <sup>h</sup> 5 <sup>m</sup>	0 <sup>h</sup> 03 <sup>s</sup>	0 <sup>h</sup> 5 <sup>m</sup>	0 <sup>h</sup> 03 <sup>s</sup>	0 <sup>h</sup> 03 <sup>s</sup>	SW:WSW	SW	5 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 66 <sup>s</sup>	408	c	c ro c Frst Cist Acu	bc b rr m	b x
22	13 <sup>h</sup> 5 <sup>m</sup>	1 <sup>h</sup> 00 <sup>s</sup>	13 <sup>h</sup> 5 <sup>m</sup>	1 <sup>h</sup> 00 <sup>s</sup>	1 <sup>h</sup> 00 <sup>s</sup>	NW:WSW	NW:WSW	7 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 56 <sup>s</sup>	330	rr o	rr o Nbst	c bc b	b c b
23	6 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 47 <sup>s</sup>	5 <sup>h</sup> 7 <sup>m</sup>	0 <sup>h</sup> 42 <sup>s</sup>	0 <sup>h</sup> 42 <sup>s</sup>	WSW:SW	SW	0 <sup>h</sup> 9 <sup>m</sup>	0 <sup>h</sup> 02 <sup>s</sup>	290	b x bc lu-ha	dc c Ast Ci so-ha prhn	b c b m o	b m
24	12 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 95 <sup>s</sup>	11 <sup>h</sup> 9 <sup>m</sup>	0 <sup>h</sup> 88 <sup>s</sup>	0 <sup>h</sup> 88 <sup>s</sup>	SW:WSW	SSW:SW	0 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 00 <sup>s</sup>	266	c rro bc m	dc Ci Frst b m	c Ast Frst m	c bc c
25	1 <sup>h</sup> 3 <sup>m</sup>	0 <sup>h</sup> 10 <sup>s</sup>	0 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 06 <sup>s</sup>	0 <sup>h</sup> 06 <sup>s</sup>	SW:Calm	SSW:SW	1 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 03 <sup>s</sup>	234	b bc	dc ff Cist	c Frcu Stcu	b c
26	4 <sup>h</sup> 6 <sup>m</sup>	0 <sup>h</sup> 34 <sup>s</sup>	3 <sup>h</sup> 9 <sup>m</sup>	0 <sup>h</sup> 29 <sup>s</sup>	0 <sup>h</sup> 29 <sup>s</sup>	SW:WSW	SW	2 <sup>h</sup> 9 <sup>m</sup>	0 <sup>h</sup> 21 <sup>s</sup>	373	c	c Frst Acu Stcu Cist	c Frcu Stcu	b c
27	11 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 83 <sup>s</sup>	11 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 81 <sup>s</sup>	0 <sup>h</sup> 81 <sup>s</sup>	SW:NW	NW:WNW	3 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 24 <sup>s</sup>	370	c x m o	b mo bc Ci y	b Frcu y	b
28	13 <sup>h</sup> 4 <sup>m</sup>	0 <sup>h</sup> 99 <sup>s</sup>	13 <sup>h</sup> 4 <sup>m</sup>	0 <sup>h</sup> 99 <sup>s</sup>	0 <sup>h</sup> 99 <sup>s</sup>	NW:NNW	NNW	0 <sup>h</sup> 7 <sup>m</sup>	0 <sup>h</sup> 04 <sup>s</sup>	279	b x m o	b bc c Acu Stcu m o	b Frcu b y	b
29	12 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 95 <sup>s</sup>	12 <sup>h</sup> 4 <sup>m</sup>	0 <sup>h</sup> 92 <sup>s</sup>	0 <sup>h</sup> 92 <sup>s</sup>	W:N	N:Calm	1 <sup>h</sup> 2 <sup>m</sup>	0 <sup>h</sup> 05 <sup>s</sup>	265	b m o m f x	b Ci Frcu f x	c Acu Stcu b m o	b x m o
30	8 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 58 <sup>s</sup>	4 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 29 <sup>s</sup>	0 <sup>h</sup> 29 <sup>s</sup>	Calm	Calm	0 <sup>h</sup> 0 <sup>m</sup>	0 <sup>h</sup> 00 <sup>s</sup>	134			b c ff x	c ff x
Means	5 <sup>h</sup> 7 <sup>m</sup>	0 <sup>h</sup> 43 <sup>s</sup>	4 <sup>h</sup> 8 <sup>m</sup>	0 <sup>h</sup> 37 <sup>s</sup>	0 <sup>h</sup> 37 <sup>s</sup>			..	..	315				
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31	

The mean Temperature of Evaporation for the month was 43°.2, being 1°.3 higher than

The mean Temperature of the Dew Point for the month was 40°.8, being 1°.1 higher than

The mean Degree of Humidity for the month was 84.9, being 1.7 less than

The mean Elastic Force of Vapour for the month was 0.255 in., being 0.009 in. greater than

The mean amount of Cloud for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6.7.

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0.253. The maximum daily amount of Sunshine was 7.1 hours on November 1.

The highest reading of the Solar Radiation Thermometer was 107°.7 on November 1; and the lowest reading of the Terrestrial Radiation Thermometer was 17°.2 on November 30.

The Proportions of Wind referred to the cardinal points were N.14, E.3, S.34, W.37, calm or nearly calm conditions, 12, 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 November 14. The mean daily Horizontal Movement of the Air for the month was 315 miles; the greatest daily value was 649 miles on November 12, and the least daily value was 134 miles on November 30.

Rain (0.005 in. or over) fell on 20 days in the month, amounting to 6.864 in., as measured by gauge No. 6 partly sunk below the ground; being 4.644 in. greater than the average fall for the 65 years, 1841-1905.

} the average for the 65 years, 1841-1905.

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	BAROMETER  Mean of 24 Hourly Values (Corrected 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 Sun- shine	Sun above Horizon	
		Of the Air			Of Evapo- ration	Of the Dew Point							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	Mean	Greatest	Least	Highest in Sun's Ray's	Lowest on the Grass					
Dec. 1	in.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	in.	hours	hours
2	30° 352	38° 0	23° 4	14° 6	30° 5	-10° 4	29° 4	27° 6	2° 9	9° 8	0° 0	87	40° 0	14° 3	47° 9	0° 000	0° 0	8° 2
3	30° 176	46° 0	28° 8	17° 2	38° 7	-2° 2	36° 6	33° 3	5° 4	9° 2	0° 0	80	61° 7	19° 2	47° 7	0° 000	0° 3	8° 2
4	30° 077	45° 9	39° 6	6° 3	42° 6	+1° 5	41° 6	40° 3	2° 3	5° 2	0° 0	91	50° 9	27° 1	47° 3	0° 054	0° 0	8° 1
5	29° 886	50° 3	44° 0	6° 3	47° 9	+6° 6	46° 4	44° 7	3° 2	11° 5	1° 7	88	70° 8	38° 2	47° 1	0° 055	0° 7	8° 1
6	29° 606	49° 9	38° 5	11° 4	43° 2	+1° 7	39° 5	33° 9	9° 3	12° 7	2° 2	69	61° 5	31° 4	46° 9	0° 118	0° 9	8° 1
7	28° 925	48° 8	36° 4	12° 4	41° 9	+0° 4	37° 3	29° 6	12° 3	19° 0	5° 5	61	64° 2	31° 0	46° 9	0° 000	4° 1	8° 0
8	29° 046	43° 1	35° 1	8° 0	39° 1	-2° 2	36° 2	31° 2	7° 9	8° 7	6° 0	74	55° 0	29° 6	46° 8	0° 003	0° 1	8° 0
9	29° 769	42° 2	35° 7	6° 5	37° 9	-3° 1	34° 3	27° 9	10° 0	14° 6	4° 6	66	58° 7	27° 3	46° 7	0° 000	2° 0	8° 0
10	29° 595	48° 3	37° 7	10° 6	43° 4	+2° 8	41° 8	39° 7	3° 7	8° 4	2° 2	87	56° 7	32° 7	46° 7	0° 247	0° 0	7° 9
11	29° 335	46° 0	37° 0	9° 0	41° 0	+0° 6	39° 0	36° 1	4° 9	8° 4	3° 1	83	66° 8	29° 3	46° 3	0° 048	0° 6	7° 9
12	29° 372	42° 0	36° 0	6° 0	38° 8	-1° 4	36° 6	33° 1	5° 7	8° 0	4° 0	79	56° 7	30° 1	46° 2	0° 000	0° 7	7° 9
13	29° 857	40° 6	28° 0	12° 6	36° 3	-4° 0	34° 5	31° 4	4° 9	8° 8	1° 8	82	54° 5	22° 2	46° 0	0° 000	1° 6	7° 9
14	30° 159	38° 3	26° 0	10° 3	31° 2	-9° 3	30° 4	29° 1	2° 1	4° 9	0° 0	91	40° 6	20° 2	45° 9	0° 000	0° 0	7° 9
15	29° 916	42° 0	34° 1	7° 9	37° 6	-3° 1	35° 9	33° 2	4° 4	10° 7	2° 0	84	60° 4	29° 9	45° 7	0° 140	1° 2	7° 9
16	30° 087	47° 0	37° 7	9° 3	42° 8	+2° 0	41° 9	40° 7	2° 1	2° 9	0° 0	92	53° 1	27° 0	45° 4	0° 000	0° 7	7° 9
17	30° 256	51° 4	47° 0	4° 4	49° 3	+8° 6	48° 2	47° 1	2° 2	4° 5	1° 6	92	67° 5	42° 7	45° 4	0° 043	0° 3	7° 9
18	30° 502	48° 4	31° 2	17° 2	40° 3	-0° 1	38° 7	36° 5	3° 8	6° 0	1° 1	86	57° 0	22° 7	45° 2	0° 000	4° 2	7° 9
19	30° 427	46° 5	30° 0	16° 5	37° 5	-2° 5	36° 5	34° 8	2° 7	6° 7	0° 0	91	57° 8	21° 5	45° 3	0° 000	1° 6	7° 8
20	30° 110	47° 1	39° 3	7° 8	43° 0	+3° 5	41° 3	38° 9	4° 1	9° 6	0° 7	85	54° 5	33° 9	45° 2	0° 169	3° 0	7° 8
21	30° 114	41° 2	34° 2	7° 0	39° 0	-0° 0	37° 1	34° 2	4° 8	5° 9	3° 0	83	39° 6	29° 2	45° 2	0° 010	0° 0	7° 8
22	30° 105	37° 7	31° 2	6° 5	33° 8	-4° 9	31° 9	28° 7	5° 1	8° 9	3° 3	80	49° 9	25° 0	45° 2	0° 000	2° 0	7° 8
23	30° 151	34° 2	29° 9	4° 3	32° 2	-6° 2	29° 9	26° 1	6° 1	8° 5	3° 7	75	37° 7	25° 2	45° 0	0° 000	0° 0	7° 8
24	30° 287	34° 6	31° 3	3° 3	33° 3	-4° 9	31° 0	27° 2	6° 1	7° 8	2° 5	76	35° 8	26° 9	44° 8	0° 013	0° 0	7° 8
25	30° 268	37° 1	31° 6	5° 5	35° 4	-2° 8	34° 3	32° 4	3° 0	5° 5	0° 0	89	39° 1	31° 6	44° 8	0° 037	0° 0	7° 8
26	30° 309	36° 0	31° 6	4° 4	33° 9	-4° 5	33° 2	32° 0	1° 9	4° 2	0° 0	93	40° 3	30° 9	44° 4	0° 000	0° 0	7° 8
27	30° 324	37° 3	33° 0	4° 3	35° 1	-3° 5	34° 2	32° 7	2° 4	3° 5	0° 0	91	39° 4	25° 7	44° 3	0° 000	0° 0	7° 9
28	30° 345	43° 0	36° 0	7° 0	39° 7	+0° 9	37° 7	34° 7	5° 0	9° 1	3° 3	82	49° 6	33° 8	44° 1	0° 008	0° 0	7° 9
29	30° 374	40° 6	34° 1	6° 5	38° 6	-0° 3	37° 5	35° 8	2° 8	4° 7	0° 0	90	46° 9	25° 5	44° 0	0° 000	0° 0	7° 9
30	30° 097	47° 1	33° 9	13° 2	41° 7	+2° 7	39° 8	37° 1	4° 6	8° 3	0° 0	83	61° 7	25° 3	44° 0	0° 000	0° 9	7° 9
31	29° 543	51° 0	44° 4	6° 6	48° 9	+10° 0	46° 9	44° 7	4° 2	6° 2	0° 6	85	53° 1	42° 0	44° 0	0° 220	0° 0	7° 9
Means	29° 955	43° 5	34° 6	8° 9	39° 2	-0° 7	37° 4	34° 6	4° 6	8° 1	1° 7	83° 3	52° 4	28° 5	45° 6	Sum 1° 198	0° 8	7° 9
No. of Col. for Ref.	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° 955 in., being 0° 163 in. higher than the average for the 65 years, 1841-1905.

#### TEMPERATURE OF THE AIR

The highest in the month was 51° 4 on December 16; the lowest in the month was 23° 4 on December 1; and the range was 28° 0.

The mean of all the highest daily readings in the month was 43° 5, being 0° 7 lower than the average for the 65 years, 1841-1905.

The mean of all the lowest daily readings in the month was 34° 6, being 0° 9 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 8° 9, being 0° 2 greater than the average for the 65 years, 1841-1905.

The mean for the month was 39° 2, being 0° 7 lower than the average for the 65 years, 1841-1905.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1940	RECORD OF THE NIGHT SKY				WIND AS DEDUCED FROM SELF-REGISTERING ANEMOMETER				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	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>	
Dec. 1	hours	hours	hours	hours	A.M.	P.M.	Greatest Mean of 24 Hourly Measures	Horizontal Move- ment of the Air					
2	10·6	0·77	10·0	0·72	Calm		1bs.	lbs.					
3	0·0	0·00	0·0	0·00	SW: WSW	WSW: Calm	0·0	0·00	b f x	c Acu f x	bc Ci Stcu f x b	b m x	
4	2·0	0·14	0·5	0·03	Calm: S	SSW: SW	0·4	0·01	b c m f	c Cist Ci Ast so-ha m f	c d o c m f	c m f	
5	5·7	0·41	4·6	0·33	SW: WSW	SW: W	4·4	0·18	c m f	c Ast Frst m f	c Ast Frst rr o m	c m	
6	3·6	0·26	2·7	0·19	WNW	WSW: SW	6·3	0·83	319	c Ast m mo	c Prcu Acu Stcu	rr d o rr c	
7	12·7	0·92	12·3	0·80	WNW: NW	W	17·5	2·62	458	b bc c	b bc Ci Cist Ast cz o	c Ast r o r	
8	11·7	0·85	11·3	0·82	W: NW	NW: NNW	3·8	0·33	630	b bc q	b c Frst Frcu q y	b m	
9	2·6	0·19	1·4	0·10	NNW: NW	NW: SW	3·7	0·45	335	b bc m o	b c bc Frct Ast Acu Ci	b c r c	
10	7·8	0·57	6·8	0·49	SSW: WSW	W: WSW	2·9	0·20	371	c bc b x m o	b c Frst St m mo y	bc lu-ha c	
11	12·0	0·87	11·7	0·85	WSW: NW	W: WNW	10·6	0·57	336	c rr ido m	ido Nbst Ast Stcu m	bc b	
12	12·2	0·89	12·0	0·88	W	NNW: NW	2·7	0·30	408	b c rr	r c bc Ast Acu Frcu c	b c b	
13	7·0	0·51	6·3	0·46	NW: NNW	N: Calm	0·4	0·05	349	b bc m	b c Frct Frst m o	b m f x	
14	4·7	0·34	4·4	0·32	Calm	S	0·8	0·03	221	b c b x m	b c Frct Frst m o	c	
15	0·0	0·00	0·0	0·00	S	S	4·4	0·36	164	ff x	b Ff c m bc Frct Ci	rr c	
16	3·4	0·24	2·6	0·18	Calm	Calm: SSW	0·8	0·03	353	c bc x	c bc c Frct Frst Ast Ci	c m bc	
17	5·0	0·35	4·5	0·32	SSW: SW	SSW: NW	1·1	0·14	159	c	c Stcu f m	c	
18	5·8	0·42	4·9	0·35	N: NE	NNE: Calm	0·3	0·00	308	c rro	rr o c Acu Stcu	dd o c	
19	0·0	0·00	0·0	0·00	Calm	SSW: SW	2·0	0·03	144	c b x	b m m o	b f x	
20	0·6	0·05	0·4	0·03	N	N	2·0	0·19	166	fF	Fe f c Acu f	c ido m o	
21	7·4	0·53	6·9	0·49	WSW: NNE: N	NNE: NE	3·0	0·30	322	c d o rro m o	c b Frct Stcu m o	id o ro c m o	
22	5·0	0·36	4·7	0·33	ENE: E	ENE: E	2·1	0·17	365	c	c Nbst Frst id o m o	c b M o	
23	0·0	0·00	0·0	0·00	ENE: E	ENE: E	3·2	0·48	314	b bc b x	b c Stcu b Frct	b c	
24	0·0	0·00	0·0	0·00	ENE: NE	NE: NNE	1·4	0·10	278	c	c Frst Stcu	c so ro so c	
25	0·0	0·00	0·0	0·00	NNE: Calm	Calm	0·4	0·02	135	c ro s o r o	d d o St m f	d d o m	
26	5·0	0·36	4·7	0·33	Calm	Calm	0·0	0·00	86	c m	c Stcu m f	c ff	
27	0·9	0·07	0·3	0·02	WNW: NW	NNW: Calm	0·0	0·00	101	c m f	c Stcu ff	b x c m	
28	7·2	0·52	6·8	0·49	Calm	Calm: WSW	..	..	200	c	r c Stcu Acu m	c m f	
29	1·4	0·10	0·7	0·05	WSW	WSW: SW	3·4	..	130	c ff	c f b m	b m c	
30	0·1	0·01	0·0	0·00	SW: WSW	WSW: W	6·0	0·74	316	c m f	c Ast Acu m bc	c	
31	0·0	0·00	0·0	0·00	WSW: Calm: NE	E: NE: ENE	2·9	0·25	446	c rr d o	d o d o c Frst Stcu Nbst	c id o c	
Means	4·2	0·31	3·7	0·27	..	..	0·30	278	c id o	d o d o Nbst m	d o d d Nbst c	c	
No. of Col. for Ref.	19	20	21	22	23	24	25	26	27	28	29	30	31

The mean Temperature of Evaporation for the month was 37°·4, being 1°·1 lower than

The mean Temperature of the Dew Point for the month was 34°·6, being 1°·8 lower than

The mean Degree of Humidity for the month was 85·3, being 4·2 less than

The mean Elastic Force of Vapour for the month was 0·200 in., being 0·016 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 7·6

The mean proportion of Sunshine for the month (constant sunshine being represented by 1) was 0·101. The maximum daily amount of Sunshine was 4·2 hours on December 17.

The highest reading of the Solar Radiation Thermometer was 70°·8 on December 4; and the lowest reading of the Terrestrial Radiation Thermometer was 14°·3 on December 1.

The Proportions of Wind referred to the cardinal points were N.17, E.11, S.17, W.30, calm or nearly calm conditions, 25, the whole month being represented by 100.

The Greatest Pressure of the Wind in the month was 17·5 lbs. on the square foot on December 6. The mean daily Horizontal Movement of the Air for the month was 278 miles; the greatest daily value was 630 miles on December 6, and the least daily value was 86 miles on December 25.

The record of Wind between December 6 and 22 is based on eye-readings of a Browning anemometer erected about three feet to the north of the Robinson anemometer for use while the latter was undergoing repair.

Rain (0·005 in. or over) fell on 14 days in the month, amounting to 1·198 in., as measured by gauge No.6 partly sunk below the ground; being 0·629 in. less than the average fall for the 65 years, 1841-1905.

the average for the 65 years, 1841-1905.

TABLE XVIII(A). - 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., 1940.	Reading	U.T., 1940.	Reading	U.T., 1940.	Reading	U.T., 1940.	Reading	U.T., 1940.	Reading	U.T., 1940.	Reading
d. h. m.	in.	d. h. m.	in	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.	d. h. m.	in.
January		January		May		May		September		September	
1. 21. 50.	30°024	4. 5. 10.	29°509	6. 23. 10.	30°030	7. 16. 55.	29°946	6. 9. 15.	30°071	4. 17. 30.	29°919
6. 9. 15.	29°847	7. 5. 55.	29°758	9. 8. 15.	30°040	10. 17. 5.	29°952	9. 23. 30.	29°929	8. 18. 0.	29°587
11. 8. 30.	30°509	16. 13. 30.	29°532	12. 7. 35.	30°245	15. 17. 20.	29°307	11. 23. 10.	30°151	10. 16. 0.	29°788
17. 19. 20.	30°001	19. 6. 0.	29°784	19. 11. 40.	30°083	22. 7. 10.	29°630	13. 22. 20.	29°488	13. 14. 20.	29°402
20. 18. 15.	30°051	22. 5. 25.	29°600	24. 21. 15.	29°845	26. 15. 15.	29°591	13. 22. 20.	29°488	15. 2. 30.	29°189
23. 21. 50.	30°061	27. 6. 50.	29°720	27. 23. 25.	29°734	28. 17. 10.	29°652	16. 6. 50.	29°551	17. 7. 20.	29°282
28. 12. 0.	29°886							18. 13. 30.	29°774	20. 4. 0.	29°331
								22. 6. 25.	29°807	22. 18. 0.	29°629
								26. 20. 20.	30°260	28. 4. 40.	29°909
								29. 10. 30.	30°143		
February		February		June		June					
2. 23. 5.	29°675	1. 1. 0.	29°175	4. 9. 5.	30°191	6. 18. 25.	30°004	October		October	
6. 11. 10.	29°849	4. 6. 50.	29°248	8. 0. 0.	30°075	12. 17. 0.	29°623				
8. 21. 40.	29°902	7. 15. 40.	29°450	18. 8. 15.	30°110	23. 6. 25.	29°164				
10. 20. 45.	29°953	9. 16. 10.	29°715	28. 9. 0.	30°163	29. 16. 15.	30°043	5. 9. 45.	29°893	4. 20. 20.	29°660
12. 21. 25.	30°168	11. 13. 15.	29°785					7. 21. 0.	29°807	6. 21. 45.	29°228
18. 8. 20.	29°813	17. 6. 25.	29°178					12. 9. 35.	29°988	9. 6. 40.	28°980
21. 1. 25.	29°984	19. 4. 30.	29°334					16. 1. 15.	29°795	14. 12. 10.	29°540
25. 9. 0.	29°886	23. 22. 50.	29°548					18. 9. 30.	29°783	18. 22. 5.	29°545
		28. 1. 15.	29°354					28. 21. 20.	29°991	21. 5. 20.	29°534
				July		July				31. 17. 20.	29°127
March		March		1. 0. 0.	30°208	3. 17. 10.	29°532	November		November	
2. 1. 10.	30°388	4. 18. 0.	29°961	4. 22. 10.	29°649	7. 1. 50.	29°427				
6. 10. 15.	30°144	13. 5. 15.	28°863	9. 8. 10.	29°917	11. 4. 10.	29°595	2. 10. 15.	29°754	4. 13. 40.	29°008
13. 21. 55.	29°040	14. 4. 45.	28°832	11. 21. 20.	29°732	16. 4. 15.	29°497	5. 2. 30.	29°720	6. 2. 0.	29°150
16. 11. 20.	30°037	19. 7. 50.	29°279	17. 21. 0.	29°668	18. 12. 20.	29°538	8. 0. 10.	30°132	9. 20. 25.	29°225
21. 23. 20.	29°834	26. 6. 40.	29°050	23. 1. 40.	29°814	23. 15. 0.	29°689	11. 7. 35.	29°460	12. 7. 50.	28°569
29. 0. 25.	29°909	29. 21. 50.	29°514	24. 7. 25.	29°773	24. 19. 0.	29°675	13. 10. 40.	29°135	13. 23. 45.	28°455
31. 3. 10.	30°026			25. 8. 25.	29°775	26. 3. 5.	29°567	15. 7. 45.	29°260	17. 0. 25.	28°456
				28. 9. 0.	30°151	30. 5. 30.	30°070	19. 19. 20.	29°524	20. 9. 10.	29°170
								20. 23. 20.	29°648	21. 5. 45.	29°564
								21. 12. 30.	29°692	22. 5. 00.	29°437
								23. 1. 50.	30°276	24. 4. 55.	30°174
								25. 10. 5.	30°387	27. 6. 40.	29°914
								30. 10. 5.	30°467		
April		April		August		August					
1. 21. 0.	29°740	1. 14. 15.	29°616	3. 9. 0.	30°169	6. 16. 40.	29°737	December		December	
4. 1. 5.	29°643	3. 7. 45.	29°354	9. 8. 0.	29°883	10. 13. 40.	29°590				
6. 9. 30.	30°260	4. 14. 10.	29°478	12. 11. 0.	30°104	14. 17. 15.	29°889				
10. 23. 40.	30°358	8. 3. 55.	29°947	17. 7. 30.	30°326	19. 3. 50.	29°872	5. 9. 58.	29°813	4. 21. 5.	29°687
17. 22. 40.	29°495	15. 15. 55.	29°220	19. 22. 25.	29°983	21. 17. 50.	29°380	7. 4. 0.	28°823	7. 4. 0.	29°206
21. 9. 45.	29°875	18. 23. 0.	29°146	23. 0. 0.	29°872	23. 10. 0.	29°745	13. 19. 0.	29°949	10. 16. 5.	29°783
25. 21. 0.	29°710	23. 14. 10.	29°438	25. 10. 0.	30°120	27. 4. 20.	30°007	17. 20. 40.	30°189	14. 18. 10.	30°077
28. 11. 40.	29°850	26. 14. 25.	29°632	28. 8. 40.	30°236	29. 8. 20.	29°956	23. 12. 0.	30°327	22. 1. 30.	30°238
		30. 17. 10.	29°455	31. 1. 50.	30°278			28. 10. 15.	30°415	24. 5. 0.	30°140

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 reading to reduce to sea level.

TABLE XVIII(B). - HIGHEST AND LOWEST READINGS OF THE BAROMETER IN EACH MONTH FOR THE YEAR 1940

	January	February	March	April	May	June	July	August	September	October	November	December
HIGHEST	in. 30°509	in. 30°168	in. 30°388	in. 30°358	in. 30°245	in. 30°191	in. 30°208	in. 30°326	in. 30°260	in. 29°988	in. 30°467	in. 30°596
LOWEST	29°509	29°175	28°832	28°146	29°307	29°164	29°427	29°380	29°189	28°980	28°455	28°823
RANGE	1°000	0°993	1°556	1°212	0°938	1°027	0°781	0°946	1°071	1°008	2°012	1°773

The highest reading in the year was 30°596 ins. on Dec. 17. The lowest reading in the year was 28°455 ins. on Nov. 13. The range of reading in the year was 2°141 ins.

TABLE XIX. - MONTHLY RESULTS OF METEOROLOGICAL ELEMENTS FOR THE YEAR 1940

MONTH 1940	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 Ranges	Monthly Mean	Excess of Mean above the Average of 65 Years				
January	29° 917	50° 0	12° 4	37° 6	35° 4	25° 7	9° 7	30° 8	-7° 8	29° 7	27° 7	87° 2	
February	29° 715	55° 8	21° 6	34° 2	42° 1	33° 1	9° 0	37° 7	-1° 9	36° 5	34° 7	88° 5	
March	29° 742	63° 1	24° 3	38° 8	50° 9	36° 8	14° 1	43° 5	+1° 6	40° 1	35° 0	71° 9	
April	29° 734	70° 1	28° 3	41° 8	56° 7	40° 6	16° 1	48° 2	+0° 9	44° 5	39° 6	72° 3	
May	29° 835	73° 0	36° 6	36° 4	66° 3	45° 4	20° 9	55° 8	+2° 7	50° 7	45° 3	68° 4	
June	29° 896	83° 7	47° 6	36° 1	72° 7	52° 7	19° 9	62° 6	+3° 2	56° 3	50° 8	65° 9	
July	29° 751	81° 7	46° 7	35° 0	69° 7	52° 3	17° 4	60° 7	-2° 0	55° 6	51° 3	71° 7	
August	29° 972	83° 3	39° 4	43° 9	71° 7	53° 2	18° 5	62° 1	+0° 5	56° 2	51° 0	67° 6	
September	29° 828	85° 7	36° 2	49° 5	66° 9	47° 9	19° 0	57° 3	+0° 1	52° 2	47° 2	69° 5	
October	29° 698	62° 1	27° 6	34° 5	56° 2	43° 2	13° 0	49° 8	-0° 2	47° 3	44° 4	82° 2	
November	29° 580	60° 6	25° 4	35° 2	50° 9	38° 7	12° 2	45° 1	+1° 6	43° 2	40° 8	84° 9	
December	29° 955	51° 4	23° 4	28° 0	43° 5	34° 6	8° 9	39° 2	-0° 7	37° 4	34° 6	83° 3	
Means	29° 802	85° 7	12° 4	73° 3	56° 9	42° 0	14° 9	49° 4	-0° 2	45° 8	41° 9	76° 1	

MONTH 1940	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								From Robin- son's Anemo- meter		
				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 Hours of Prevalence of each Wind referred to different Points of Azimuth										
				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					
January	0° 148	42° 4	5° 6	11	in.	h	h	h	h	h	h	h	h	lbs.	miles	
February	0° 201	40° 4	8° 9	18	1° 222	87	80	220	64	65	70	20	31	107	0° 13	270
March	0° 204	42° 8	6° 4	12	1° 429	65	112	74	42	104	110	22	23	144	0° 14	264
April	0° 244	45° 5	7° 1	16	3° 796	94	45	55	7	87	258	95	39	64	0° 35	321
May	0° 304	51° 1	5° 2	8	1° 645	98	38	73	20	72	132	98	64	125	0° 24	281
June	0° 373	56° 5	5° 0	6	1° 033	106	89	108	34	30	117	39	34	187	0° 10	229
July	0° 380	59° 0	7° 1	17	0° 873	62	144	128	11	19	68	58	59	171	0° 11	236
August	0° 376	60° 0	6° 0	3	3° 609	62	24	17	2	43	241	126	80	149	0° 14	248
September	0° 326	59° 2	6° 0	7	0° 145	97	42	46	10	23	112	149	130	135	0° 16	259
October	0° 294	55° 2	6° 5	14	1° 428	129	37	... 3	41	197	129	62	122	0° 24	274	
November	0° 255	50° 4	6° 7	20	6° 864	72	7	11	20	89	297	92	46	86	0° 37	315
December	0° 200	45° 6	7° 6	14	1° 198	50	73	44	1	64	127	127	75	183	0° 30	278
Sums	...	...	...	146	26° 605	959	859	850	270	742	1864	977	655	1608	...	...
Means	0° 275	50° 7	6° 5	...	...	...	...	...	...	...	...	...	...	0° 21	271	

The Greatest recorded pressure of the wind on the Square Foot in the year was 17° 5 lbs. on Dec. 6.

The greatest recorded Daily Horizontal Movement of the Air in the year was 649 miles on Nov. 12.

The least recorded Daily Horizontal Movement of the Air in the year was 86 miles on Dec. 25.

TABLE XX. - 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	
0 <sup>h</sup>	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	29° 929	29° 706	29° 758	29° 750	29° 834	29° 904	29° 763	29° 980	29° 840	29° 710	29° 544	29° 977	29° 808	
2	29° 925	29° 701	29° 755	29° 746	29° 832	29° 901	29° 758	29° 977	29° 837	29° 709	29° 546	29° 971	29° 805	
3	29° 927	29° 699	29° 748	29° 742	29° 829	29° 898	29° 753	29° 975	29° 835	29° 704	29° 552	29° 971	29° 803	
4	29° 926	29° 695	29° 741	29° 738	29° 825	29° 896	29° 749	29° 971	29° 831	29° 699	29° 557	29° 965	29° 799	
5	29° 921	29° 694	29° 737	29° 733	29° 829	29° 897	29° 747	29° 970	29° 826	29° 697	29° 559	29° 958	29° 797	
6	29° 916	29° 695	29° 733	29° 732	29° 833	29° 900	29° 749	29° 972	29° 824	29° 696	29° 561	29° 952	29° 797	
7	29° 914	29° 695	29° 736	29° 738	29° 838	29° 904	29° 751	29° 978	29° 831	29° 696	29° 566	29° 953	29° 800	
8	29° 919	29° 697	29° 704	29° 740	29° 842	29° 908	29° 754	29° 982	29° 836	29° 702	29° 575	29° 954	29° 801	
9	29° 927	29° 705	29° 743	29° 744	29° 846	29° 909	29° 757	29° 985	29° 840	29° 711	29° 585	29° 959	29° 809	
10	29° 930	29° 710	29° 747	29° 745	29° 845	29° 908	29° 756	29° 985	29° 845	29° 718	29° 593	29° 968	29° 813	
11	29° 931	29° 718	29° 748	29° 744	29° 843	29° 907	29° 754	29° 982	29° 841	29° 716	29° 604	29° 972	29° 813	
12	29° 927	29° 724	29° 745	29° 738	29° 840	29° 902	29° 753	29° 980	29° 836	29° 713	29° 604	29° 969	29° 811	
13	29° 917	29° 723	29° 745	29° 732	29° 834	29° 897	29° 749	29° 975	29° 829	29° 705	29° 598	29° 958	29° 805	
14	29° 906	29° 717	29° 741	29° 727	29° 830	29° 892	29° 747	29° 970	29° 822	29° 695	29° 594	29° 952	29° 799	
15	29° 903	29° 713	29° 733	29° 721	29° 826	29° 888	29° 745	29° 965	29° 813	29° 687	29° 588	29° 945	29° 794	
16	29° 904	29° 713	29° 727	29° 718	29° 822	29° 881	29° 741	29° 958	29° 808	29° 681	29° 590	29° 944	29° 791	
17	29° 907	29° 713	29° 727	29° 716	29° 820	29° 877	29° 739	29° 953	29° 804	29° 679	29° 593	29° 947	29° 790	
18	29° 907	29° 720	29° 731	29° 716	29° 820	29° 873	29° 738	29° 950	29° 806	29° 682	29° 594	29° 946	29° 790	
19	29° 910	29° 730	29° 740	29° 720	29° 825	29° 877	29° 740	29° 952	29° 810	29° 687	29° 592	29° 949	29° 794	
20	29° 913	29° 737	29° 747	29° 730	29° 831	29° 882	29° 744	29° 958	29° 821	29° 690	29° 592	29° 949	29° 799	
21	29° 915	29° 740	29° 749	29° 738	29° 843	29° 891	29° 750	29° 970	29° 830	29° 695	29° 588	29° 946	29° 805	
22	29° 916	29° 742	29° 749	29° 740	29° 852	29° 902	29° 759	29° 979	29° 835	29° 697	29° 584	29° 944	29° 808	
23	29° 915	29° 743	29° 748	29° 740	29° 856	29° 906	29° 763	29° 982	29° 839	29° 695	29° 579	29° 941	29° 809	
24	29° 911	29° 742	29° 747	29° 738	29° 857	29° 908	29° 764	29° 982	29° 839	29° 694	29° 576	29° 941	29° 808	
Means {	0 <sup>h-23<sup>h</sup></sup>	29° 917	29° 715	29° 742	29° 734	29° 835	29° 896	29° 751	29° 972	29° 828	29° 698	29° 580	29° 955	29° 802
1 <sup>h-24<sup>h</sup></sup>	29° 916	29° 717	29° 742	29° 734	29° 836	29° 896	29° 751	29° 972	29° 828	29° 698	29° 581	29° 954	29° 802	
No. of Days Employed	31	29	31	30	31	30	31	31	30	31	30	31	..	

TABLE XXI. - 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>	°	°	°	°	°	°	°	°	°	°	°	°	°	
1	30° 0	36° 6	41° 0	44° 6	49° 8	56° 9	55° 9	57° 9	53° 3	47° 3	43° 9	38° 2	46° 3	
2	29° 7	36° 4	40° 6	44° 1	48° 9	56° 1	55° 0	57° 1	52° 6	47° 1	43° 4	38° 1	45° 8	
3	29° 4	36° 0	40° 0	43° 5	48° 2	55° 2	54° 3	56° 5	51° 9	46° 9	43° 1	37° 8	45° 2	
4	28° 6	35° 4	39° 1	42° 3	46° 6	53° 5	54° 4	53° 4	55° 7	51° 1	46° 5	42° 8	44° 7	
5	28° 2	35° 6	38° 3	41° 8	46° 8	53° 8	54° 0	54° 5	49° 8	45° 7	43° 2	37° 8	44° 1	
6	28° 2	35° 5	38° 6	42° 5	48° 8	55° 7	55° 7	55° 0	50° 0	46° 0	43° 0	37° 9	44° 7	
7	28° 5	35° 7	39° 1	44° 1	51° 7	58° 4	58° 1	56° 9	51° 5	46° 2	43° 1	38° 2	46° 0	
8	28° 7	36° 0	40° 5	46° 7	54° 5	61° 4	60° 3	59° 4	54° 5	47° 8	43° 5	38° 4	47° 6	
9	29° 4	36° 8	42° 7	49° 2	57° 2	64° 3	62° 3	62° 2	57° 5	49° 9	44° 6	38° 6	49° 6	
10	30° 5	37° 7	44° 9	51° 4	59° 8	67° 0	64° 4	64° 6	60° 2	52° 0	46° 3	39° 5	51° 5	
11	31° 9	39° 0	46° 8	52° 8	61° 7	68° 5	65° 6	66° 5	62° 0	53° 1	47° 7	40° 2	53° 0	
12	33° 2	39° 8	47° 7	53° 5	62° 8	69° 4	66° 3	67° 7	63° 6	54° 0	48° 8	41° 2	54° 0	
13	34° 0	40° 4	48° 3	54° 0	63° 2	70° 1	66° 2	68° 8	64° 6	54° 8	49° 3	41° 7	54° 6	
14	34° 2	40° 9	49° 0	54° 5	63° 9	70° 4	66° 8	69° 6	65° 3	55° 0	49° 0	41° 7	55° 0	
15	33° 7	40° 5	49° 1	53° 8	64° 4	67° 8	67° 3	70° 0	65° 1	54° 7	47° 9	41° 4	54° 9	
16	33° 2	40° 1	48° 8	53° 6	63° 9	70° 6	67° 0	69° 7	64° 7	54° 1	47° 1	41° 0	54° 5	
17	32° 5	39° 5	47° 6	52° 9	63° 3	69° 6	66° 3	68° 7	63° 4	52° 8	46° 3	40° 3	53° 6	
18	31° 8	38° 8	46° 1	51° 5	62° 0	68° 3	64° 9	67° 0	61° 6	51° 3	45° 6	39° 7	52° 4	
19	31° 4	38° 5	44° 8	50° 1	59° 3	66° 1	63° 1	64° 7	59° 9	50° 1	45° 1	39° 3	51° 0	
20	31° 1	38° 1	43° 8	48° 4	56° 5	63° 6	61° 4	62° 5	58° 2	49° 1	44° 6	39° 1	49° 7	
21	30° 9	37° 8	42° 9	47° 2	54° 3	61° 2	59° 6	60° 9	56° 3	48° 4	44° 2	39° 0	48° 6	
22	30° 8	37° 5	42° 4	46° 3	52° 6	59° 3	58° 4	59° 9	54° 8	48° 0	43° 9	38° 9	47° 7	
23	30° 4	37° 1	42° 0	45° 4	51° 2	57° 8	57° 1	58° 9	53° 5	47° 6	43° 6	38° 5	46° 9	
24	30° 1	36° 6	41° 6	44° 6	50° 1	56° 7	56° 1	57° 9	52° 7	47° 3	43° 2	38° 5	46° 3	
Means {	0 <sup>h-23<sup>h</sup></sup>	30° 8	37° 7	43° 5	48° 2	55° 8	62° 6	60° 7	62° 1	57° 3	49° 8	45° 1	39° 2	49° 4
1 <sup>h-24<sup>h</sup></sup>	30° 8	37° 7	43° 5	48° 2	55° 8	62° 6	60° 7	62° 1	57° 3	49° 8	45° 1	39° 2	49° 4	
No. of Days Employed	31	29	31	30	31	30	31	31	30	31	30	31	..	

TABLE XXII. - 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>	o	o	o	o	o	o	o	o	o	o	o	o	o	
1	29° 3	35° 9	39° 0	42° 4	47° 7	53° 9	53° 4	54° 7	50° 5	45° 7	42° 6	36° 7	44° 3	
2	29° 0	35° 6	38° 5	42° 1	47° 1	53° 4	52° 8	54° 1	50° 0	45° 5	42° 2	36° 6	43° 9	
3	28° 7	35° 3	38° 1	41° 7	46° 6	52° 9	52° 4	53° 8	49° 6	45° 4	42° 0	36° 4	43° 6	
4	28° 0	34° 8	37° 3	40° 9	45° 6	52° 0	52° 0	52° 9	48° 6	44° 9	41° 9	36° 4	42° 9	
5	27° 6	34° 9	37° 0	40° 7	45° 6	51° 9	52° 3	52° 3	48° 1	44° 7	42° 1	36° 5	42° 8	
6	27° 6	34° 7	36° 9	40° 9	47° 0	53° 0	53° 3	52° 5	47° 9	44° 7	41° 8	36° 5	43° 1	
7	27° 7	34° 8	37° 2	42° 0	48° 5	54° 3	54° 5	53° 7	49° 1	45° 0	41° 7	36° 6	43° 8	
8	27° 9	35° 0	38° 2	43° 7	50° 0	55° 9	55° 7	55° 1	51° 3	46° 1	41° 9	36° 7	44° 8	
9	28° 4	35° 7	39° 5	45° 3	51° 5	57° 3	56° 8	56° 4	52° 8	47° 5	42° 8	36° 9	45° 9	
10	29° 3	36° 3	40° 5	46° 4	52° 7	58° 5	57° 7	57° 5	54° 1	49° 0	44° 1	37° 5	47° 0	
11	30° 4	37° 2	41° 7	47° 0	53° 7	59° 0	58° 1	58° 1	54° 7	49° 5	45° 0	38° 1	47° 7	
12	31° 4	37° 9	42° 4	47° 3	54° 3	59° 3	58° 1	58° 6	55° 0	50° 0	45° 4	38° 6	48° 2	
13	32° 1	38° 4	42° 8	47° 8	54° 7	59° 7	58° 0	58° 9	55° 4	50° 4	45° 7	39° 0	48° 6	
14	32° 2	38° 8	43° 2	48° 1	54° 9	59° 4	58° 4	59° 3	55° 8	50° 4	45° 7	39° 0	48° 8	
15	32° 0	38° 6	43° 3	47° 9	54° 9	59° 4	58° 5	59° 7	55° 4	50° 2	44° 9	38° 9	48° 6	
16	31° 7	38° 3	43° 2	47° 7	54° 9	59° 3	58° 2	59° 5	55° 6	49° 7	44° 3	38° 5	48° 4	
17	31° 2	37° 8	42° 6	47° 1	54° 8	59° 1	58° 0	59° 1	55° 2	49° 3	43° 9	38° 1	48° 0	
18	30° 7	37° 4	41° 9	46° 5	54° 0	58° 8	57° 5	58° 5	54° 4	48° 5	43° 5	37° 7	47° 5	
19	30° 3	37° 2	41° 3	45° 7	52° 7	57° 9	56° 9	57° 7	53° 6	47° 6	43° 3	37° 6	46° 8	
20	30° 2	36° 9	40° 8	44° 8	51° 6	57° 2	56° 2	56° 9	52° 8	47° 1	42° 9	37° 4	46° 2	
21	30° 0	36° 7	40° 3	44° 0	50° 5	56° 4	55° 6	56° 2	52° 0	46° 7	42° 8	37° 5	45° 7	
22	29° 8	36° 4	39° 9	43° 5	49° 4	55° 4	54° 8	55° 6	51° 1	46° 4	42° 6	37° 6	45° 2	
23	29° 6	36° 1	39° 6	43° 0	48° 5	54° 6	54° 0	55° 2	50° 4	46° 0	42° 3	37° 3	44° 7	
24	29° 4	35° 9	39° 5	42° 4	47° 9	53° 8	53° 5	54° 7	50° 0	45° 7	42° 0	36° 9	44° 3	
Means {	0 <sup>h-23h</sup>	29° 7	36° 5	40° 1	44° 5	50° 7	56° 3	55° 6	56° 2	52° 2	47° 3	43° 2	37° 4	45° 8
No. of Days Employed	31	29	31	30	31	30	31	31	30	31	30	31	..	

TABLE XXIII. - 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>	o	o	o	o	o	o	o	o	o	o	o	o	o	
1	28° 2	34° 7	36° 1	39° 5	45° 4	51° 2	51° 2	51° 9	47° 7	43° 8	41° 0	34° 5	42° 1	
2	27° 8	34° 2	35° 4	39° 5	45° 1	51° 0	50° 8	51° 4	47° 3	43° 6	40° 6	34° 4	41° 8	
3	27° 5	34° 0	35° 3	39° 3	44° 8	50° 8	50° 6	51° 4	47° 2	43° 6	40° 5	34° 3	41° 6	
4	27° 3	34° 2	34° 9	38° 8	44° 5	50° 7	50° 6	51° 3	46° 7	43° 6	40° 5	34° 3	41° 5	
5	27° 0	33° 7	34° 6	39° 0	44° 4	50° 6	50° 7	50° 7	46° 5	43° 5	40° 9	34° 4	41° 3	
6	26° 7	33° 7	35° 0	39° 3	44° 2	50° 1	50° 7	50° 2	46° 2	43° 5	40° 6	34° 5	41° 2	
7	26° 7	33° 3	34° 3	38° 7	45° 0	50° 6	51° 2	50° 3	45° 6	43° 1	40° 1	34° 4	41° 1	
8	26° 6	33° 2	34° 3	39° 3	45° 1	50° 7	51° 3	50° 8	46° 5	43° 5	39° 8	34° 2	41° 3	
9	26° 7	33° 7	34° 8	40° 5	45° 7	51° 4	52° 1	51° 4	48° 4	45° 0	40° 5	34° 3	42° 0	
10	27° 3	34° 1	34° 0	40° 3	45° 6	51° 5	52° 2	51° 5	48° 5	45° 8	41° 4	34° 4	42° 2	
11	27° 9	34° 5	34° 2	40° 0	45° 9	51° 1	51° 9	51° 1	47° 9	45° 8	41° 8	34° 9	42° 2	
12	28° 4	35° 1	34° 9	39° 8	46° 1	51° 0	51° 3	51° 1	47° 0	45° 8	41° 2	34° 5	42° 2	
13	28° 7	35° 4	35° 1	40° 5	46° 6	51° 2	51° 2	50° 6	46° 8	45° 9	41° 3	34° 8	42° 3	
14	28° 7	35° 7	35° 2	40° 6	46° 4	50° 3	51° 5	50° 8	47° 0	45° 6	41° 7	34° 8	42° 4	
15	29° 3	35° 8	35° 3	41° 0	45° 8	49° 9	51° 3	51° 3	46° 2	45° 5	41° 1	35° 1	42° 3	
16	29° 4	35° 7	35° 5	40° 7	46° 4	49° 9	50° 9	51° 1	47° 2	45° 1	40° 9	34° 6	42° 3	
17	29° 1	35° 3	35° 5	40° 1	46° 8	50° 4	51° 1	51° 1	47° 7	45° 6	40° 9	34° 7	42° 4	
18	28° 8	35° 4	36° 0	40° 5	46° 3	50° 9	51° 2	51° 5	47° 6	45° 5	40° 8	34° 7	42° 4	
19	28° 5	35° 3	36° 2	40° 4	46° 2	51° 0	51° 7	51° 9	47° 7	44° 9	40° 9	35° 1	42° 5	
20	28° 7	35° 0	36° 6	40° 3	46° 7	51° 9	51° 5	52° 2	47° 5	44° 9	40° 7	34° 9	42° 6	
21	28° 5	34° 9	36° 5	40° 0	46° 7	52° 4	52° 2	52° 2	47° 8	44° 8	41° 1	35° 4	42° 7	
22	28° 2	34° 6	36° 2	40° 0	46° 0	52° 1	51° 6	51° 6	47° 4	44° 6	41° 0	35° 7	42° 4	
23	28° 3	34° 4	36° 0	39° 8	45° 6	51° 7	51° 2	52° 0	47° 2	44° 2	40° 6	35° 5	42° 2	
24	28° 3	34° 7	36° 4	39° 5	45° 5	51° 2	51° 2	51° 9	47° 2	43° 8	40° 4	34° 5	42° 0	
Means {	0 <sup>h-23h</sup>	27° 9	34° 5	35° 3	39° 9	45° 7	51° 0	51° 3	51° 3	47° 2	44° 6	40° 8	34° 7	42° 0
	1 <sup>h-24h</sup>	27° 9	34° 5	35° 3	39° 9	45° 7	51° 0	51° 3	51° 3	47° 2	44° 6	40° 8	34° 7	42° 0

## GREENWICH METEOROLOGICAL OBSERVATIONS, 1940.

TABLE XXIV. - 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>	92	93	83	82	85	81	84	80	81	88	89	86	85	
1	92	92	81	84	86	83	85	82	82	88	90	86	86	
2	92	93	83	85	88	85	87	83	84	88	91	87	87	
3	93	95	83	86	90	88	89	85	85	90	91	88	89	
4	93	94	84	88	92	90	91	85	87	91	93	88	89	
5	93	93	88	90	91	87	89	85	87	92	91	88	89	
6	93	92	85	86	86	83	85	84	85	90	90	87	87	
7	90	91	82	83	78	76	78	80	83	91	88	85	84	
8	90	90	80	77	71	69	73	74	79	87	87	84	80	
9	88	89	73	72	65	63	70	68	71	83	85	84	76	
10	86	87	65	66	59	57	65	63	65	79	83	82	71	
11	84	83	61	62	56	54	61	57	59	76	79	81	68	
12	81	83	61	60	54	52	58	55	55	74	75	78	65	
13	80	82	60	60	55	51	58	53	53	71	74	77	64	
14	79	81	59	59	53	49	58	51	52	71	76	77	64	
15	82	83	59	62	51	47	56	51	51	71	77	78	64	
16	84	84	60	61	53	48	56	52	53	71	79	78	65	
17	86	85	63	62	55	50	58	54	56	76	81	80	67	
18	88	87	67	66	56	54	61	58	60	81	83	82	70	
19	88	88	72	69	62	58	67	63	63	82	86	85	74	
20	90	89	75	73	70	66	71	69	68	86	86	85	77	
21	90	90	78	76	75	73	77	73	73	87	88	86	81	
22	89	90	79	78	78	77	78	74	76	88	89	88	82	
23	91	91	79	81	81	80	81	78	79	88	89	89	84	
24	92	93	82	82	84	82	84	80	82	88	90	85	85	
Means {	0 <sup>h</sup> -23 <sup>h</sup>	88	89	73	74	70	68	72	69	70	83	85	84	77
	1 <sup>h</sup> -24 <sup>h</sup>	88	89	73	74	70	68	72	69	70	83	85	84	77

TABLE XXV. - 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  
FOR THE YEAR 1940

MONTH 1940	Registered duration of Sunshine in the Hour ending:-															Total Registered Duration of Sunshine in each Month	Corre- sponding aggregate Period during which the Sun was above the Horizon	Pro- portion of Sunshine	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	h	h	h	h	h	6·0	9·5	11·1	10·0	9·5	6·4	0·4	-	-	-	-	53·5	h	o	
February	-	-	-	0·7	1·5	2·3	3·8	3·6	3·8	3·8	1·9	0·6	-	-	-	-	22·0	260·1	0·206	18
March	-	-	1·6	9·0	12·8	12·7	13·2	13·3	13·2	12·0	11·0	10·0	5·0	0·7	-	-	114·5	288·5	0·076	26
April	-	1·8	7·2	8·5	11·4	13·5	13·3	12·4	11·3	9·1	7·6	8·8	7·9	3·5	0·3	-	116·6	368·5	0·311	37
May	1·3	9·4	12·5	13·7	12·8	16·1	19·6	19·9	20·0	18·7	19·6	17·4	17·5	17·2	13·3	1·5	230·5	416·1	0·280	48
June	3·9	11·7	14·4	18·1	19·2	18·9	18·1	17·6	17·1	16·6	17·0	17·9	18·4	18·6	18·9	7·6	254·0	484·2	0·476	57
July	3·2	9·5	12·9	13·8	13·4	14·4	16·0	16·3	13·9	15·0	16·1	15·0	14·6	11·6	9·6	1·5	196·8	496·5	0·512	62
August	-	1·4	9·3	10·6	12·0	14·3	15·8	14·3	16·9	16·8	17·7	17·2	17·6	13·8	4·6	-	182·3	499·4	0·394	60
September	-	-	4·6	12·3	14·5	15·9	16·5	17·5	16·9	15·7	13·5	13·7	12·4	4·0	-	-	157·5	451·7	0·404	52
October	-	-	-	3·4	8·5	10·6	11·1	12·0	13·7	14·0	12·0	11·4	2·2	-	-	-	98·9	331·1	0·299	30
November	-	-	-	0·4	3·0	8·7	10·6	10·1	12·4	11·9	8·0	2·3	-	-	-	-	67·4	266·9	0·253	20
December	-	-	-	-	-	3·4	5·5	6·8	4·7	3·5	1·0	-	-	-	-	-	24·9	245·6	0·101	16
For the Year	8·4	33·8	62·5	90·5	109·7	136·8	153·0	154·9	153·9	146·6	131·8	114·7	95·6	69·4	46·7	10·6	1518·9	4488·2	0·338	..

The hours are reckoned from "Apparent" midnight.

TABLE XXVI. - READINGS OF THE THERMOMETERS IN THE STEVENSON SCREEN IN THE CHRISTIE ENCLOSURE  
(The readings of the maximum and minimum thermometers apply to the 24 hours ending 21<sup>h</sup>)

Day of the Month	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.				Day of the Month	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. 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																					
1	35° 6	23° 5	27° 9	32° 9	35° 0	32° 2	27° 7	32° 0	34° 2	31° 6	1	41° 3	33° 4	36° 3	40° 6	40° 7	36° 7	32° 1	32° 8	34° 3	33° 1
2	32° 6	25° 3	26° 4	31° 4	32° 2	26° 5	25° 5	29° 5	30° 5	25° 4	2	41° 7	32° 2	37° 4	40° 9	39° 4	32° 2	33° 3	32° 3	31° 0	29° 2
3	35° 2	22° 4	25° 8	34° 7	34° 9	34° 6	25° 3	32° 4	33° 1	33° 2	3	47° 6	28° 0	34° 0	42° 6	47° 2	33° 3	31° 4	36° 2	39° 2	31° 5
4	38° 4	32° 4	35° 8	37° 6	37° 8	36° 6	34° 2	35° 4	35° 4	35° 4	4	49° 9	31° 1	39° 1	42° 3	49° 9	44° 3	37° 0	41° 2	45° 3	41° 0
5	39° 8	31° 3	32° 4	37° 9	39° 1	32° 0	31° 6	36° 1	37° 4	31° 3	5	44° 3	35° 6	38° 0	43° 3	41° 7	35° 6	32° 5	35° 8	35° 1	31° 6
6	42° 0	25° 4	32° 6	35° 9	39° 0	42° 0	31° 7	34° 7	38° 0	41° 5	6	43° 7	32° 6	35° 3	39° 9	42° 3	34° 3	32° 0	36° 1	36° 1	33° 3
7	50° 0	42° 0	44° 4	48° 6	49° 8	48° 9	44° 1	48° 1	49° 4	48° 5	7	42° 0	24° 3	30° 5	38° 4	40° 6	30° 9	29° 8	32° 3	34° 8	28° 4
8	48° 9	41° 1	41° 4	44° 6	43° 9	42° 9	40° 6	42° 7	42° 5	40° 9	8	47° 7	26° 3	34° 7	43° 3	47° 6	38° 4	32° 0	37° 5	41° 0	36° 0
9	43° 1	33° 3	35° 4	35° 1	33° 9	33° 5	33° 9	33° 1	32° 1	32° 5	9	51° 7	32° 4	41° 4	47° 9	51° 3	42° 4	38° 7	41° 9	43° 3	37° 8
10	33° 7	27° 3	29° 5	32° 4	32° 9	29° 0	27° 8	28° 9	28° 6	27° 8	10	58° 7	36° 6	46° 0	54° 7	55° 9	45° 6	41° 0	44° 4	44° 9	41° 6
11	36° 2	23° 5	28° 4	35° 3	35° 6	31° 4	27° 2	32° 1	33° 2	29° 8	11	63° 1	42° 4	46° 2	58° 3	62° 0	49° 4	44° 6	50° 3	49° 9	46° 3
12	37° 1	25° 9	28° 0	35° 6	36° 0	29° 0	26° 0	32° 4	32° 2	27° 6	12	52° 3	45° 1	50° 7	49° 6	50° 9	49° 8	47° 0	47° 5	49° 3	48° 5
13	35° 3	23° 3	24° 2	31° 6	34° 6	32° 0	24° 0	30° 3	32° 2	30° 6	13	56° 5	46° 9	50° 7	55° 2	53° 6	47° 9	48° 5	50° 1	50° 3	45° 0
14	32° 6	24° 3	28° 6	29° 8	31° 4	31° 0	28° 4	29° 8	30° 8	30° 6	14	47° 9	32° 1	33° 8	33° 1	36° 9	32° 2	33° 0	32° 4	34° 7	30° 8
15	31° 2	23° 8	24° 6	28° 2	31° 0	28° 6	24° 3	27° 7	30° 2	27° 8	15	48° 7	27° 6	39° 1	47° 3	48° 1	42° 1	34° 0	40° 1	41° 1	40° 2
16	32° 8	21° 9	32° 0	30° 2	27° 9	23° 0	30° 6	28° 2	27° 3	22° 3	16	49° 3	35° 5	37° 9	44° 7	48° 7	43° 4	37° 6	42° 4	45° 7	40° 6
17	28° 0	18° 4	20° 0	25° 4	28° 0	25° 3	19° 2	24° 6	25° 8	24° 4	17	52° 9	41° 6	43° 4	45° 9	52° 0	51° 0	42° 9	45° 4	51° 2	50° 7
18	32° 4	18° 2	22° 2	29° 1	31° 8	26° 6	21° 5	26° 5	29° 0	25° 2	18	61° 3	51° 0	59° 7	60° 5	54° 0	50° 8	55° 6	55° 2	51° 4	51° 4
19	35° 6	22° 3	23° 4	34° 0	32° 5	24° 4	22° 8	30° 6	31° 0	24° 0	19	54° 2	44° 5	50° 3	49° 4	47° 4	44° 5	45° 3	44° 1	41° 3	40° 5
20	27° 8	12° 4	15° 8	25° 3	26° 0	21° 2	15° 3	22° 8	23° 4	19° 2	20	54° 7	40° 6	48° 2	54° 2	53° 1	46° 0	43° 4	46° 5	43° 7	42° 2
21	29° 4	18° 8	23° 2	27° 0	27° 8	29° 4	21° 3	25° 5	27° 2	29° 0	21	56° 1	40° 5	48° 1	50° 5	55° 4	49° 4	44° 9	48° 5	52° 0	47° 6
22	33° 3	26° 3	32° 1	33° 0	29° 4	28° 5	31° 3	31° 8	29° 0	28° 1	22	53° 3	45° 0	49° 0	53° 3	49° 8	47° 0	45° 3	48° 1	46° 1	44° 9
23	31° 6	20° 8	27° 4	28° 4	31° 6	20° 8	26° 8	27° 9	29° 7	20° 6	23	57° 3	44° 9	50° 4	58° 0	54° 7	46° 7	47° 4	50° 2	49° 5	45° 7
24	36° 9	19° 4	29° 9	36° 6	35° 5	33° 7	28° 8	32° 4	32° 3	31° 7	24	58° 2	39° 9	45° 8	54° 2	55° 0	47° 3	44° 5	49° 7	50° 0	46° 3
25	41° 5	30° 5	34° 9	39° 4	39° 9	31° 3	32° 4	35° 0	35° 1	30° 5	25	56° 0	42° 1	50° 6	55° 3	54° 3	47° 9	46° 6	47° 4	47° 5	44° 9
26	36° 6	31° 3	34° 4	36° 5	33° 3	32° 9	31° 8	34° 2	32° 3	32° 6	26	48° 3	40° 3	41° 1	42° 2	41° 4	40° 5	40° 4	41° 4	40° 6	39° 3
27	33° 9	30° 6	32° 7	32° 6	32° 6	31° 2	32° 3	32° 0	32° 0	30° 7	27	47° 8	37° 2	42° 6	45° 5	47° 2	40° 4	37° 6	38° 3	38° 2	35° 7
28	31° 2	28° 6	29° 4	30° 0	30° 0	29° 6	28° 3	28° 8	28° 8	28° 8	28	43° 1	33° 1	36° 3	41° 5	42° 3	37° 6	30° 1	33° 4	34° 3	32° 8
29	29° 6	25° 9	27° 4	27° 9	28° 2	25° 9	26° 2	27° 0	27° 2	25° 1	29	44° 7	25° 6	40° 0	42° 9	43° 8	44° 3	32° 3	37° 9	39° 3	42° 3
30	30° 7	25° 4	26° 8	27° 6	28° 3	30° 7	26° 4	26° 9	27° 6	30° 2	30	54° 9	42° 0	46° 4	51° 8	54° 5	44° 8	41° 2	45° 4	47° 0	42° 7
31	35° 0	30° 7	33° 0	34° 1	34° 6	33° 5	32° 7	33° 8	34° 2	33° 0	31	54° 6	41° 4	51° 2	52° 8	53° 9	51° 1	46° 5	47° 8	49° 0	46° 8
Means	35° 4	26° 0	29° 4	33° 2	33° 7	30° 9	28° 4	31° 4	32° 0	30° 0	Means	51° 1	37° 2	42° 7	47° 7	49° 1	42° 9	39° 5	42° 4	43° 3	40° 3
FEBRUARY																					
1	33° 6	31° 4	33° 3	33° 0	32° 7	31° 4	32° 8	32° 7	32° 2	31° 0	1	61° 4	45° 6	56° 2	58° 1	58° 3	47° 0	50° 0	50° 9	50° 2	42° 8
2	32° 2	28° 9	30° 0	31° 2	31° 6	29° 2	29° 4	30° 1	30° 2	28° 9	2	56° 7	40° 0	48° 9	55° 1	53° 9	46° 0	45° 9	47° 9	46° 8	43° 9
3	38° 7	29° 0	32° 2	33° 5	35° 5	38° 7	31° 7	32° 1	33° 9	37° 2	3	52° 3	42° 3	45° 7	48° 3	49° 0	47° 6	44° 7	46° 4	45° 0	42° 8
4	44° 7	37° 4	38° 1	42° 6	44° 5	43° 0	37° 7	42° 3	44° 3	42° 8	4	56° 6	42° 6	51° 3	53° 9	49° 8	48° 5	49° 3	48° 9	47° 0	44° 2
5	47° 1	41° 3	42° 8	45° 9	46° 1	42° 6	42° 5	45° 0	45° 3	42° 2	5	48° 7	39° 8	47° 2	47° 4	46° 7	39° 8	41° 8	41° 9	41° 4	36° 1
6	45° 6	37° 7	40° 6	45° 0	44° 9	41° 3	39° 9	44° 1	43° 7	40° 7	6	47° 4	33° 0	41° 8	43° 8	46° 2	36° 0	37° 3	38° 5	41° 2	35° 3
7	49° 7	40° 1	43° 5	47° 9	49° 6	46° 3	42° 9	47° 0	48° 4												

TABLE XXVI. - READINGS OF THE THERMOMETERS IN THE STEVENSON SCREEN IN THE CHRISTIE ENCLOSURE  
(The readings of the maximum and minimum thermometers apply to the 24 hours ending 21<sup>h</sup>)

Day of the Month	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.				Day of the Month	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. 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																					
1	63° 1	47° 0	49° 7	54° 3	62° 0	51° 2	48° 3	51° 9	57° 3	50° 1	1	75° 9	48° 9	66° 2	72° 9	74° 8	60° 3	54° 1	57° 9	58° 4	55° 8
2	63° 9	45° 4	50° 2	58° 5	63° 2	51° 2	48° 7	54° 2	56° 3	50° 0	2	81° 7	51° 5	70° 5	78° 9	80° 6	67° 7	59° 5	63° 3	62° 6	58° 4
3	65° 1	44° 4	55° 5	61° 5	64° 2	51° 0	50° 8	54° 5	55° 0	47° 5	3	73° 2	55° 3	63° 3	70° 3	72° 5	62° 4	59° 9	60° 8	61° 0	54° 4
4	70° 0	44° 5	47° 3	59° 2	69° 6	58° 3	45° 6	53° 8	59° 3	53° 8	4	65° 8	51° 7	60° 8	63° 4	63° 3	56° 8	51° 0	52° 4	53° 3	50° 6
5	69° 1	44° 9	57° 6	65° 8	68° 9	54° 5	50° 6	57° 5	51° 0	51° 0	5	73° 8	50° 3	64° 2	69° 3	72° 2	61° 5	57° 7	59° 3	60° 5	56° 5
6	61° 6	45° 3	59° 4	59° 4	48° 8	54° 5	58° 4	51° 8	45° 2	6	64° 3	56° 2	61° 4	59° 1	63° 0	59° 0	59° 5	57° 6	58° 5	56° 6	
7	66° 4	38° 3	53° 6	59° 4	66° 2	51° 5	48° 5	50° 4	52° 8	46° 8	7	68° 8	52° 4	64° 2	67° 4	64° 6	59° 2	56° 7	57° 6	58° 4	55° 4
8	59° 8	47° 3	54° 4	58° 5	57° 6	48° 7	51° 7	53° 6	52° 4	46° 4	8	73° 2	54° 3	63° 4	69° 7	72° 3	63° 4	55° 9	56° 4	60° 2	56° 0
9	65° 0	43° 4	50° 2	62° 6	63° 6	51° 8	46° 7	53° 3	54° 5	49° 4	9	71° 2	50° 3	63° 7	68° 3	67° 7	62° 2	58° 7	61° 3	61° 5	59° 2
10	69° 8	41° 3	60° 2	67° 5	67° 8	58° 0	51° 6	55° 2	58° 7	52° 5	10	73° 8	59° 4	70° 7	71° 8	71° 4	59° 4	64° 5	63° 5	62° 7	58° 2
11	58° 8	47° 8	53° 8	58° 3	57° 6	47° 8	47° 6	47° 7	47° 0	44° 2	11	69° 7	55° 5	59° 7	66° 5	65° 4	57° 4	58° 9	57° 0	55° 7	52° 7
12	64° 9	36° 6	52° 4	62° 4	62° 4	50° 0	45° 0	52° 7	52° 0	47° 0	12	67° 0	49° 5	61° 8	61° 7	62° 8	54° 6	54° 4	55° 3	54° 5	53° 4
13	70° 7	40° 5	54° 2	64° 3	69° 4	59° 4	48° 5	55° 0	57° 9	54° 4	13	68° 9	54° 6	61° 5	66° 5	68° 2	56° 2	56° 0	58° 5	57° 0	52° 4
14	72° 6	47° 2	62° 3	70° 6	71° 0	54° 5	53° 0	57° 4	58° 3	51° 2	14	73° 6	46° 7	65° 1	70° 7	68° 4	59° 0	57° 3	58° 7	58° 0	54° 6
15	72° 4	49° 1	62° 6	71° 8	70° 6	60° 6	55° 2	57° 4	57° 5	54° 6	15	65° 0	50° 8	62° 9	63° 5	59° 4	58° 6	58° 4	59° 7	57° 9	57° 0
16	62° 9	52° 3	57° 4	61° 3	61° 6	53° 2	52° 1	49° 4	48° 7	46° 0	16	59° 7	56° 6	58° 6	58° 5	58° 6	59° 4	57° 4	57° 7	58° 0	58° 6
17	65° 2	46° 1	54° 5	61° 5	64° 0	51° 3	48° 7	52° 4	54° 0	47° 5	17	68° 4	54° 7	57° 0	63° 3	67° 9	58° 4	55° 5	57° 3	56° 9	53° 0
18	64° 5	41° 4	56° 5	62° 6	63° 8	51° 7	49° 9	52° 9	52° 3	47° 9	18	65° 6	50° 3	56° 9	60° 2	64° 4	58° 2	55° 4	58° 7	59° 6	55° 6
19	63° 2	43° 4	58° 4	62° 0	62° 8	53° 0	50° 4	49° 0	49° 8	45° 6	19	72° 9	54° 5	65° 7	70° 5	69° 2	59° 6	59° 5	61° 0	59° 3	56° 2
20	68° 2	43° 3	60° 0	66° 7	67° 6	51° 0	48° 2	51° 5	51° 7	47° 4	20	72° 1	58° 2	62° 2	69° 9	70° 7	58° 6	59° 8	58° 4	59° 7	56° 9
21	62° 4	39° 9	57° 8	61° 2	61° 0	52° 0	51° 1	52° 5	51° 6	48° 6	21	68° 6	53° 6	62° 4	66° 4	62° 6	59° 6	58° 4	59° 6	57° 0	54° 1
22	62° 5	49° 3	53° 6	53° 9	60° 6	52° 1	53° 2	51° 9	54° 4	51° 0	22	70° 4	49° 7	62° 6	65° 2	68° 3	61° 0	56° 6	56° 3	57° 4	55° 6
23	68° 1	43° 1	62° 5	66° 4	62° 1	53° 5	55° 2	57° 1	55° 3	51° 2	23	67° 3	54° 4	59° 0	62° 0	66° 8	56° 9	54° 5	56° 2	59° 2	55° 3
24	66° 3	48° 3	59° 1	64° 3	65° 2	54° 3	52° 9	55° 2	56° 4	51° 7	24	63° 2	52° 5	60° 9	61° 8	58° 9	53° 7	56° 9	55° 9	56° 6	53° 3
25	73° 0	48° 1	65° 3	71° 9	70° 0	64° 0	56° 8	59° 7	59° 5	57° 4	25	71° 7	48° 4	61° 5	68° 3	67° 0	59° 5	56° 9	58° 5	57° 6	57° 3
26	66° 1	52° 0	65° 2	62° 9	59° 5	58° 8	59° 6	60° 7	58° 5	55° 9	26	71° 7	53° 2	56° 9	65° 3	71° 7	60° 6	54° 9	57° 5	59° 7	54° 0
27	69° 6	51° 6	60° 2	65° 3	68° 4	56° 8	55° 7	57° 6	58° 3	53° 1	27	62° 4	51° 3	60° 9	57° 8	60° 1	55° 4	54° 5	53° 3	56° 7	53° 2
28	63° 4	51° 3	59° 6	58° 7	61° 7	55° 0	55° 1	57° 3	56° 7	53° 0	28	70° 2	48° 3	59° 0	65° 8	67° 1	60° 0	52° 7	55° 4	56° 1	55° 0
29	65° 7	48° 0	58° 7	63° 8	63° 8	58° 0	55° 2	56° 3	56° 5	53° 5	29	70° 0	51° 0	61° 9	66° 5	69° 6	62° 0	53° 9	55° 7	57° 7	54° 5
30	72° 3	50° 5	61° 7	67° 5	68° 8	62° 0	55° 2	57° 1	56° 8	56° 0	30	66° 2	55° 4	59° 7	62° 6	64° 4	63° 7	56° 8	58° 6	59° 7	60° 0
31	68° 3	51° 5	58° 8	63° 9	66° 0	60° 8	53° 4	54° 3	54° 0	54° 8	31	74° 0	56° 3	65° 7	70° 4	72° 3	62° 8	58° 9	61° 6	63° 3	59° 9
Means	66° 3	45° 9	57° 2	62° 8	64° 4	54° 3	51° 5	54° 3	54° 9	50° 5	Means	69° 7	52° 8	62° 3	66° 3	67° 3	59° 6	56° 8	58° 1	58° 5	55° 6
JUNE																					
1	73° 4	51° 6	64° 4	66° 9	72° 8	66° 5	58° 7	60° 3	63° 0	61° 0	1	73° 0	54° 4	59° 2	67° 6	71° 8	59° 5	55° 2	59° 9	63° 8	56° 7
2	71° 3	55° 3	67° 1	69° 2	71° 0	58° 0	58° 7	60° 7	62° 3	55° 0	2	69° 9	55° 6	58° 2	63° 7	67° 6	57° 4	53° 5	56° 7	60° 1	54° 2
3	71° 7	49° 7	63° 3	70° 6	70° 7	58° 9	58° 8	60° 9	60° 7	54° 9	3	71° 8	57° 4	59° 0	64° 3	71° 3	58° 9	56° 0	59° 0	64° 1	56° 4
4	70° 0	51° 9	62° 2	67° 4	69° 2	59° 0	58° 2	60° 9	60° 6	55° 6	4	78° 6	57° 4	63° 0	74° 5	76° 8	65° 3	60° 5	65° 9	66° 6	61° 7
5	73° 2	50° 3	63° 4	70° 9	72° 4	62° 8	57° 3	58° 0	56° 9	58° 0	5	81° 1	55° 2	72° 2	75° 3	79° 7	69° 0	64° 7	66° 7	66° 3	62° 8
6	77° 7	54° 7	69° 7	75° 9	76° 2	64° 4	61° 9	63° 0	57° 7	58° 4	6	73° 8	59° 0	62° 9	71° 5	72° 9	61° 9	57° 3	62° 0	61° 3	59° 9
7	79° 0	54° 5	72° 2	78° 3	77° 9	64° 4	61° 7	62° 4	61° 4	58° 6	7										

TABLE XXVI. - READINGS OF THE THERMOMETERS IN THE STEVENSON SCREEN IN THE CHRISTIE ENCLOSURE  
(The readings of the maximum and minimum thermometers apply to the 24 hours ending 21<sup>h</sup>)

Day of the Month	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.				Day of the Month	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. 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																					
1	81° 8	56° 7	68° 4	76° 7	79° 0	66° 9	58° 3	61° 2	64° 0	60° 6	1	58° 1	44° 5	50° 6	56° 5	56° 2	51° 3	48° 2	49° 7	50° 6	49° 1
2	74° 4	55° 3	65° 7	70° 4	72° 6	63° 0	57° 1	60° 6	61° 7	59° 0	2	56° 7	45° 6	50° 1	54° 6	53° 7	56° 5	47° 7	50° 8	51° 3	54° 6
3	81° 0	57° 0	66° 9	75° 9	80° 5	65° 4	59° 3	64° 2	64° 9	61° 4	3	57° 1	47° 7	50° 8	50° 9	49° 2	47° 7	49° 9	50° 3	48° 4	47° 5
4	85° 7	52° 9	75° 3	83° 3	85° 7	66° 8	63° 8	64° 9	64° 5	60° 4	4	59° 9	46° 0	57° 2	59° 8	49° 6	46° 0	55° 2	54° 8	48° 4	44° 8
5	83° 0	54° 6	68° 8	77° 1	82° 0	68° 2	60° 8	63° 1	64° 1	61° 0	5	53° 9	35° 5	43° 6	52° 6	53° 1	47° 5	42° 3	50° 1	49° 1	46° 5
6	74° 9	56° 2	64° 4	71° 5	74° 3	58° 0	56° 7	59° 2	59° 4	53° 8	6	49° 9	42° 8	45° 5	48° 6	48° 1	43° 3	43° 7	43° 9	44° 9	42° 2
7	78° 0	49° 7	62° 0	73° 8	77° 5	62° 0	55° 0	59° 8	61° 0	56° 8	7	49° 8	40° 4	44° 0	48° 3	48° 5	40° 6	41° 8	45° 3	45° 0	39° 9
8	67° 5	54° 8	54° 8	65° 2	66° 5	57° 7	52° 6	56° 0	55° 3	49° 9	8	50° 6	34° 4	38° 1	48° 4	48° 5	44° 0	36° 7	43° 1	44° 0	43° 2
9	59° 7	47° 7	53° 1	58° 9	57° 7	50° 3	48° 6	50° 6	48° 5	45° 4	9	49° 4	41° 5	46° 6	47° 5	46° 0	47° 7	44° 4	44° 0	43° 4	47° 1
10	66° 6	42° 3	55° 4	63° 5	63° 6	59° 6	52° 8	58° 1	59° 5	52° 9	10	51° 1	38° 0	43° 0	50° 2	46° 6	38° 0	42° 0	46° 9	43° 0	37° 2
11	60° 6	47° 4	55° 3	57° 0	59° 0	48° 4	49° 0	47° 3	46° 5	42° 6	11	55° 9	38° 5	41° 7	46° 8	48° 3	55° 9	38° 9	43° 5	47° 4	54° 3
12	66° 0	41° 1	56° 6	63° 6	64° 4	60° 0	48° 6	55° 2	55° 9	55° 8	12	56° 8	45° 5	49° 1	52° 1	49° 7	46° 7	45° 8	46° 1	44° 1	42° 0
13	66° 7	52° 7	58° 8	63° 3	59° 8	52° 7	58° 0	59° 1	54° 5	48° 0	13	50° 1	41° 8	46° 6	49° 3	48° 0	41° 8	43° 2	44° 6	44° 6	41° 0
14	64° 3	46° 3	54° 9	60° 0	60° 2	53° 0	49° 7	52° 4	51° 2	50° 0	14	47° 7	33° 4	40° 2	44° 9	46° 6	39° 1	38° 4	42° 4	43° 5	37° 9
15	59° 8	47° 3	54° 2	57° 3	56° 5	51° 0	49° 2	49° 4	50° 0	46° 8	15	49° 3	30° 3	37° 1	46° 9	46° 3	46° 0	36° 1	43° 7	43° 7	44° 7
16	65° 1	41° 9	52° 3	55° 1	60° 4	61° 2	50° 1	53° 8	59° 5	59° 2	16	47° 0	42° 1	43° 5	45° 5	45° 2	45° 5	42° 1	44° 3	43° 7	44° 0
17	67° 3	59° 0	62° 8	65° 5	66° 9	59° 0	59° 2	54° 2	54° 1	53° 2	17	50° 0	38° 4	40° 8	47° 9	46° 9	43° 5	39° 3	42° 5	43° 0	42° 0
18	67° 2	52° 7	59° 4	64° 7	64° 4	57° 0	53° 3	53° 8	54° 0	53° 0	18	44° 6	39° 9	40° 7	44° 1	44° 4	41° 5	39° 9	43° 5	44° 0	41° 1
19	66° 2	53° 3	57° 7	64° 1	59° 1	57° 6	56° 7	56° 6	57° 4	54° 6	19	45° 3	37° 0	43° 8	44° 9	44° 6	37° 4	42° 7	43° 5	42° 7	37° 2
20	65° 3	50° 8	57° 2	61° 5	64° 7	56° 3	54° 2	55° 1	56° 9	53° 1	20	55° 6	37° 4	50° 8	54° 3	51° 4	46° 2	49° 7	50° 3	46° 5	43° 7
21	63° 8	45° 3	52° 6	51° 2	63° 6	49° 6	51° 5	55° 3	56° 2	49° 0	21	60° 6	46° 2	55° 7	60° 6	56° 3	54° 7	56° 4	54° 9	54° 0	54° 0
22	64° 4	45° 0	58° 5	61° 3	64° 0	58° 6	56° 9	59° 0	61° 0	55° 8	22	56° 3	40° 3	45° 2	46° 7	48° 5	40° 3	43° 4	43° 3	43° 7	38° 2
23	65° 4	50° 4	58° 1	63° 3	64° 6	53° 1	52° 6	54° 3	53° 6	49° 1	23	49° 6	31° 9	40° 0	48° 7	49° 4	47° 0	39° 2	45° 7	47° 0	45° 8
24	59° 0	42° 7	50° 2	55° 7	58° 7	50° 8	48° 0	48° 7	50° 2	46° 9	24	53° 1	45° 8	47° 1	51° 6	51° 2	45° 8	45° 7	48° 7	48° 3	44° 7
25	57° 7	44° 2	51° 2	55° 7	57° 4	48° 0	47° 6	48° 9	48° 3	44° 5	25	50° 3	39° 2	40° 8	47° 5	50° 1	47° 5	40° 6	46° 6	48° 2	45° 5
26	58° 6	39° 0	47° 4	54° 6	57° 2	49° 2	44° 7	49° 8	50° 0	46° 4	26	51° 9	43° 3	49° 6	51° 7	49° 2	43° 4	46° 4	47° 7	46° 2	42° 3
27	67° 0	36° 2	52° 0	62° 6	66° 6	59° 5	47° 7	54° 7	55° 9	54° 4	27	51° 0	40° 5	50° 6	48° 6	47° 2	40° 5	48° 4	43° 4	41° 1	37° 6
28	59° 5	47° 8	54° 1	57° 5	56° 7	47° 8	48° 7	48° 3	47° 1	44° 1	28	42° 9	34° 8	36° 7	42° 2	41° 8	36° 0	33° 7	36° 8	36° 6	33° 3
29	56° 0	44° 2	48° 8	53° 8	55° 8	48° 9	46° 3	48° 4	49° 3	46° 5	29	42° 1	31° 1	38° 0	40° 8	41° 6	35° 0	35° 2	38° 0	37° 8	33° 5
30	55° 3	44° 2	49° 6	55° 0	53° 9	50° 4	46° 1	48° 0	47° 0	46° 4	30	35° 0	25° 4	29° 1	31° 7	31° 9	28° 6	28° 6	30° 9	31° 5	28° 4
Means	66° 9	48° 6	57° 5	63° 6	65° 1	56° 3	52° 8	55° 0	55° 4	52° 0	Means	51° 0	39° 2	44° 6	48° 8	47° 9	44° 2	42° 8	45° 4	44° 9	42° 8
OCTOBER																					
1	56° 1	41° 3	50° 9	54° 1	55° 7	47° 7	45° 1	46° 5	46° 7	43° 2	1	38° 0	23° 4	27° 4	37° 0	37° 8	30° 5	27° 4	33° 5	34° 9	29° 5
2	58° 8	45° 4	52° 2	56° 4	57° 7	48° 9	45° 8	47° 4	48° 3	44° 0	2	46° 0	28° 8	38° 4	44° 4	45° 5	42° 0	36° 6	40° 7	42° 4	40° 5
3	52° 4	47° 0	48° 6	50° 0	52° 4	50° 4	47° 8	49° 4	51° 6	49° 7	3	45° 9	38° 4	41° 5	45° 3	45° 7	43° 2	41° 2	43° 8	43° 4	42° 4
4	57° 6	46° 8	53° 5	54° 8	54° 7	56° 6	50° 9	52° 2	50° 9	56° 2	4	50° 3	43° 2	47° 5	48° 5	49° 9	50° 2	46° 6	46° 9	47° 3	48° 4
5	61° 2	49° 9	54° 4	58° 0	61° 0	57° 2	50° 6	51° 3	53° 6	53° 0	5	50° 2	38° 5	40° 6	43° 2	42° 7	46° 4	36° 3	38° 6	44° 8	
6	60° 9	57° 2	60° 4	60° 8	60° 0	60° 3	57° 4	58° 7	57° 5	59° 2	6	49° 9	37° 9	41° 7	44° 2	44° 3	37° 9	37° 1	38° 3	37° 4	34° 4
7	61° 1	48° 2	53° 2	57° 5	59° 4	48° 2	48° 7	50° 0	50° 3	45° 3	7	43° 1	35° 1	37° 7	41° 6	43° 1	39° 4	35° 3	38° 4	39° 6	37° 1
8	61° 5	43° 3	56° 4	57° 6	60° 6	52° 6	51° 7	55° 4	56° 3	51° 4	8										

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

1940	January	February	March	April	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.	Max. Min.	Max. Min.	Max. Min.	Max. Min.
1	o o	o o	o o	o o	o o	o o	o o	o o	o o	o o	o o	o o
2	35° 6 23° 4	34° 6 32° 2	41° 4 32° 7	57° 2 46° 3	59° 9 47° 3	72° 6 51° 3	79° 8 47° 4	77° 2 53° 7	83° 6 56° 4	57° 5 39° 2	59° 7 44° 3	33° 0 22° 4
3	36° 0 23° 6	33° 2 28° 8	43° 2 32° 6	61° 3 40° 3	64° 9 45° 7	76° 3 54° 1	79° 8 51° 3	75° 2 55° 5	84° 4 53° 5	58° 2 44° 8	58° 6 45° 5	38° 8 27° 5
4	32° 7 21° 2	33° 0 29° 2	44° 3 26° 2	57° 5 42° 8	65° 9 44° 4	74° 3 48° 5	84° 2 54° 2	71° 9 58° 6	77° 2 55° 5	61° 6 46° 8	57° 2 49° 8	46° 5 37° 2
5	36° 0 25° 5	39° 6 31° 9	49° 8 30° 5	54° 3 42° 5	68° 8 45° 0	74° 0 52° 7	75° 9 51° 3	76° 4 56° 2	83° 3 51° 8	54° 9 46° 1	56° 8 46° 9	47° 8 42° 1
6	38° 4 29° 6	45° 4 38° 4	50° 9 37° 3	57° 3 41° 3	73° 3 43° 7	72° 9 50° 3	68° 0 49° 8	81° 8 54° 2	87° 3 53° 6	59° 0 50° 0	60° 5 36° 9	50° 6 38° 3
7	40° 0 25° 2	48° 4 38° 3	46° 5 31° 4	49° 7 31° 4	72° 7 45° 2	77° 0 53° 6	77° 4 56° 1	82° 9 58° 9	84° 8 52° 7	62° 8 55° 2	54° 3 43° 2	50° 2 39° 5
8	45° 4 32° 4	46° 8 40° 2	46° 3 28° 8	49° 5 29° 4	64° 6 37° 3	81° 1 53° 8	68° 4 52° 3	76° 6 54° 3	78° 3 49° 2	61° 7 50° 3	50° 0 39° 8	45° 1 34° 7
9	51° 6 39° 3	50° 0 39° 0	42° 8 26° 2	54° 4 40° 4	67° 9 47° 3	82° 2 53° 0	72° 4 53° 0	69° 8 52° 6	.. ..	61° 2 43° 3	50° 5 34° 2	43° 4 35° 1
10	45° 8 35° 1	40° 3 30° 5	48° 5 31° 5	52° 9 39° 0	61° 1 42° 2	85° 2 56° 8	75° 4 50° 1	75° 0 55° 4	.. 47° 5	62° 4 51° 4	51° 0 38° 2	47° 4 35° 9
11	35° 6 25° 2	32° 6 25° 9	52° 9 37° 0	53° 9 35° 2	68° 0 40° 2	85° 9 54° 5	73° 8 59° 8	79° 5 58° 8	60° 0 40° 4	62° 4 43° 3	48° 1 39° 3	48° 3 37° 4
12	34° 0 20° 9	34° 5 20° 9	59° 4 42° 8	49° 9 27° 0	72° 9 47° 8	71° 3 54° 9	75° 7 55° 3	73° 7 50° 9	69° 6 46° 7	57° 2 34° 3	51° 9 36° 5	46° 3 36° 3
13	37° 4 23° 2	36° 4 23° 2	63° 7 45° 6	57° 3 43° 2	62° 0 36° 8	80° 7 53° 0	72° 2 49° 2	71° 2 47° 0	61° 6 39° 7	58° 0 34° 4	56° 5 41° 4	42° 5 33° 2
14	37° 6 21° 1	30° 5 20° 2	53° 3 47° 2	57° 3 37° 7	69° 3 40° 2	72° 9 56° 2	68° 8 54° 4	72° 3 49° 2	67° 1 57° 8	60° 0 40° 2	52° 4 44° 8	40° 6 26° 2
15	35° 6 22° 2	33° 4 23° 8	57° 4 53° 0	56° 2 43° 8	72° 7 47° 2	70° 0 51° 3	71° 2 45° 5	71° 8 54° 7	68° 4 46° 2	61° 9 48° 1	49° 8 33° 4	37° 0 27° 2
16	32° 6 23° 2	30° 6 25° 3	40° 2 27° 4	57° 2 42° 2	75° 2 49° 0	77° 1 51° 5	76° 1 50° 0	71° 4 56° 4	66° 4 47° 1	57° 7 46° 5	47° 0 31° 2	42° 7 35° 8
17	32° 8 23° 8	32° 2 24° 7	51° 8 35° 2	54° 7 33° 2	75° 9 52° 2	76° 8 56° 4	65° 8 56° 5	74° 8 50° 6	62° 2 41° 8	61° 6 48° 3	49° 3 36° 2	49° 5 38° 7
18	31° 6 17° 5	37° 9 28° 2	50° 4 37° 9	52° 3 28° 9	65° 3 46° 1	67° 5 55° 5	59° 3 54° 3	73° 9 56° 3	66° 0 52° 7	58° 2 48° 3	48° 0 38° 3	52° 0 35° 3
19	27° 7 18° 1	.. 21° 9	53° 7 43° 0	57° 7 32° 0	68° 1 40° 4	76° 5 52° 6	70° 3 50° 0	83° 3 56° 5	68° 8 52° 7	62° 4 42° 2	50° 2 39° 6	43° 3 30° 5
20	31° 8 21° 3	45° 0 ..	62° 0 47° 8	52° 2 37° 2	67° 3 40° 9	80° 5 47° 9	68° 3 54° 2	84° 9 58° 3	69° 4 52° 2	56° 3 46° 0	44° 7 40° 3	47° 0 32° 5
21	35° 6 10° 3	38° 8 33° 8	51° 7 40° 8	58° 2 45° 8	66° 2 41° 0	74° 3 54° 7	74° 6 57° 9	69° 4 51° 2	67° 4 50° 5	61° 2 48° 2	50° 9 37° 5	43° 1 39° 2
22	28° 2 14° 6	49° 4 38° 1	56° 5 40° 5	64° 8 46° 2	72° 2 38° 7	77° 9 53° 6	73° 4 53° 4	70° 2 57° 8	67° 3 44° 7	63° 0 51° 4	56° 6 46° 3	39° 8 31° 2
23	31° 9 22° 8	50° 6 36° 7	57° 4 45° 4	72° 7 45° 9	65° 4 49° 7	72° 9 47° 1	72° 2 49° 4	67° 1 52° 0	65° 6 45° 5	54° 6 43° 5	61° 0 44° 6	38° 0 30° 4
24	34° 0 25° 5	52° 9 43° 1	54° 0 44° 6	66° 7 50° 2	64° 9 42° 2	69° 4 51° 9	73° 4 54° 1	64° 3 47° 4	65° 6 50° 3	57° 2 42° 3	49° 0 32° 6	34° 5 31° 2
25	31° 7 20° 2	52° 6 39° 4	58° 0 39° 4	70° 5 50° 8	70° 7 48° 3	70° 4 55° 0	70° 8 51° 9	62° 6 38° 3	67° 2 42° 2	52° 6 45° 3	50° 4 40° 7	37° 1 31° 2
26	37° 9 30° 4	53° 3 42° 2	58° 6 41° 9	58° 8 43° 9	67° 8 46° 8	75° 0 50° 8	63° 9 47° 9	73° 4 53° 8	61° 0 43° 4	48° 9 36° 5	53° 1 38° 7	35° 8 31° 9
27	40° 4 31° 2	51° 7 35° 5	57° 4 40° 3	67° 3 44° 2	75° 8 50° 9	72° 4 50° 4	73° 9 52° 8	70° 8 54° 1	60° 6 37° 6	52° 0 39° 6	50° 8 41° 0	36° 1 32° 8
28	37° 0 32° 0	52° 6 36° 5	43° 5 36° 3	68° 3 49° 9	68° 0 51° 5	68° 9 48° 5	73° 4 50° 5	75° 2 56° 7	61° 9 36° 2	49° 6 38° 5	52° 3 43° 3	39° 0 33° 1
29	32° 8 28° 9	56° 3 48° 1	49° 8 33° 0	68° 4 45° 5	71° 4 51° 1	73° 2 48° 9	65° 3 46° 2	73° 9 46° 2	67° 4 48° 1	51° 1 38° 2	51° 1 33° 5	43° 0 38° 6
30	31° 0 26° 2	51° 3 36° 8	45° 4 25° 8	61° 6 47° 8	65° 9 47° 2	77° 0 51° 8	72° 8 49° 3	72° 9 55° 0	60° 9 43° 3	49° 4 29° 2	42° 9 30° 2	40° 9 33° 8
31	28° 9 25° 3	48° 0 40° 5	62° 4 47° 2	68° 9 50° 0	80° 6 55° 3	72° 6 55° 3	71° 2 46° 3	58° 8 43° 5	49° 0 27° 9	42° 2 25° 5	50° 0 40° 2	50° 8 41° 2
Means	35° 5 24° 7	42° 6 32° 6	51° 5 36° 7	58° 7 41° 0	68° 7 45° 4	75° 6 52° 5	72° 2 52° 2	73° 8 53° 0	69° 4 47° 7	57° 4 43° 2	51° 9 39° 1	43° 2 34° 2

TABLE XXVIII. - AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1940

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	January	February	March	April	May	June	July	August	September	October	November	December	Sums	Above the Ground	Above Mean Sea Level
6	in.	1.222	1.429	3.796	1.645	1.033	0.873	3.609	0.145	1.426	2.365	6.864	1.198	26.605	0 5	149 6
8	2.168	1.379	3.775	1.645	1.012	0.865	3.564	0.122	1.398	2.342	6.917	1.180	26.367	1 0	150 1	
Number of Rainy Days (0.005 in. or over)	11	18	12	16	8	6	17	3	7	14	20	14	146	..	..	

TABLE XXIX. - 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
h	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
1	11.0	11.1	12.2	10.8	9.0	9.0	9.3	10.3	10.7	11.3	13.0	11.4	10.8
2	10.6	10.6	12.0	10.8	8.7	8.8	8.8	9.9	10.4	10.8	13.2	11.1	10.5
3	10.9	9.9	11.8	10.6	7.8	8.5	8.6	9.6	10.0	10.0	13.1	11.0	10.1
4	10.7	10.4	12.1	10.6	7.6	8.9	8.8	9.8	10.0	10.2	12.6	10.9	10.2
5	10.8	10.3	12.1	11.3	7.8	8.6	8.8	9.4	10.5	10.5	12.6	10.9	10.3
6	10.6	10.0	12.6	10.8	7.7	8.6	8.7	9.3	10.4	10.1	12.7	10.7	10.2
7	11.3	10.6	12.5	10.6	7.8	8.7	8.8	9.5	10.6	10.1	12.6	10.9	10.3
8	10.7	10.1	12.9	10.8	8.1	8.9	9.3	9.8	10.3	10.3	12.9	10.8	10.4
9	10.8	10.2	13.4	11.8	8.5	9.1	9.4	10.0	10.3	10.8	13.6	11.1	10.7
10	11.1	10.7	14.4	12.0	9.3	9.1	10.3	10.2	10.8	10.7	13.1	11.1	11.1
11	11.6	10.9	14.3	12.3	9.9	10.0	11.0	10.2	11.8	11.3	13.1	11.7	11.5
12	12.4	11.3	14.9	13.2	10.2	10.3	11.5	10.8	12.8	12.2	13.8	11.6	12.1
13	12.1	11.4	15.3	13.4	10.6	10.9	12.1	11.8	13.0	12.8	14.4	12.7	12.5
14	12.0	11.8	14.8	13.1	11.2	11.0	11.9	12.0	13.2	12.8	13.7	13.2	12.6
15	12.0	12.1	15.6	12.8	11.4	11.2	12.6	12.4	13.5	13.3	14.1	13.0	12.8
16	11.6	12.1	15.1	12.3	11.2	11.3	12.3	11.7	13.1	13.0	12.5	12.3	12.4
17	11.4	11.5	14.7	12.9	11.2	11.1	12.0	12.2	12.4	12.2	12.5	12.4	12.2
18	11.6	12.0	14.3	12.8	11.2	11.0	12.4	11.8	12.4	12.0	12.6	11.9	12.2
19	11.6	11.2	13.6	11.8	10.7	11.6	11.5	12.0	12.0	11.9	13.2	11.4	11.9
20	11.6	11.4	13.3	12.7	10.5	11.0	10.8	11.3	12.0	11.6	13.2	11.3	11.7
21	10.7	11.3	13.0	11.3	10.4	10.4	10.3	11.6	11.3	11.2	13.5	11.6	11.4
22	11.3	10.8	12.5	11.3	9.9	9.6	9.6	11.6	11.1	10.8	13.2	11.5	11.1
23	10.9	11.0	12.0	10.6	9.6	9.5	9.8	11.2	11.0	10.9	12.7	11.4	10.9
24	10.9	11.1	11.8	10.9	9.1	9.3	9.3	10.6	10.7	11.1	12.6	11.6	10.7
Means	11.3	11.0	13.4	11.7	9.6	9.9	10.3	10.8	11.4	11.3	13.1	11.6	11.3
Greatest Hourly Measures	23	22	31	29	18	20	22	23	28	30	34	36	..

\* 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 p.xvi.





