

RESULTS OF THE MAGNETIC AND METEOROLOGICAL OBSERVATIONS

*Made at the Royal Greenwich Observatory, Abinger
the Royal Observatory, Greenwich
and the Royal Greenwich Observatory, Herstmonceux
in the year*

1951

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

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CONTENTS

CONTENTS

	Page
TABLE XV. - Absolute Observations of Vertical Intensity with the Dye Coil Magnetometer; and deduced values of the Base Line of the Vertical Intensity Magnetograms	D 39
TABLE XV(A). - Daily Value of the Base Line of the Vertical Intensity Magnetograms deduced from observations of Dip with the Earth Inductor	D 41
TABLE XV(B). - Observations of Vertical Intensity made with the BMZ 35 as an additional check upon the stability of the Z-Variometer Base Line values	D 42
TABLE XVI(A). - Magnetic Elements determined at Greenwich between 1818-1925	D 43
TABLE XVI(B). - Magnetic Elements determined at Abinger between 1925-1951	D 44
NOTES ON MAGNETIC ACTIVITY	D 45
PLATES. Photo-lithographed from tracings of the Photographic Registers of Magnetic Disturbances. (Following D 50).	

METEOROLOGICAL SECTION

TABLE XVII. - Daily Results of the Meteorological Observations	D 62
TABLE XVIII(A). - Total Amount of Sunshine registered at the Royal Observatory Greenwich in each hour of the day in each month	D 86
TABLE XVIII(B). - Total Amount of Sunshine registered at the Royal Greenwich Observatory Herstmonceux in each hour of the day in each month	D 86
TABLE XIX. - Readings of Thermometers at 9h on the revolving open stand (formerly called "ordinary") at Greenwich	D 87
TABLE XX. - Amount of rain collected at Greenwich in each month of the year 1951	D 87

THE ROYAL OBSERVATORY, GREENWICH

AND

ABINGER MAGNETIC STATION, SURREY.

MAGNETIC AND METEOROLOGICAL OBSERVATIONS 1951.

INTRODUCTION

STAFF

During the year 1951 the staff serving in the Magnetic and Meteorological Department consisted of H. F. Finch, Superintendent, W. Jackson, E. A. Chamberlain, G. F. Wells, P. L. Rickerby, B. R. Leaton, J. D. Winter, Miss C. M. Cannell, R. G. Lorton and D. R. A. Christie. Mr. Chamberlain, resident observer and assistant-in-charge, Mr. Rickerby, Miss Cannell and Mr. Christie 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 vertical intensity; and on the south-west pier, the Earth-inductor for observing magnetic inclination.

A second pavilion, erected in 1926 for the testing and standardizing 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 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 0.2°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 $1\frac{1}{4}$ 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.

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 orientation of the magnet was last examined on 1947 December 2 and was then correct within 0°6. The adopted scale-value during 1951 was 4.35 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 1951 was 0'92 per millimetre. Expressed as magnetic intensity the scale-value would be 4.99 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 4.35 gamma per millimetre.

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.

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 constitutes a second, interrupted, trace of the element. 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 electromagnetically 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'. The telescope has a six-inch circle on which azimuths are read by means of two microscope-micrometers to 1". 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" 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.

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° 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 α 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° 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° 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.

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 $-ly$ 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 1951 is based were verified in June 1951, when, to cope with the increasing value of H , the standard resistance of the potentiometer was shunted with one of 400 Ohms. 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 adopted has been .99988. The change introduces a discontinuity into the deduced values of H of $-1.7y$.

Comparisons of observations made in 1950 with this instrument and with the QHMs of the Association of Geomagnetism and Aeronomy revealed a difference in the mean of $4.8y$, the coil giving the smaller values.

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.

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 (see above). 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 $F = 3.59643 (1 - 0.0000079t)$, t being temperature Celsius. The constants of the potentiometer in use during the year 1951 for the measurement of the current were verified at the National Physical Laboratory in 1951 July. The factor adopted for the conversion from international units 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 -3.9γ into the deduced values of Z .

Considerable difficulty was experienced at times during the year in obtaining the required stability and sensitivity. The trouble was subsequently traced to the oscillator. During these periods an additional check was maintained upon the base-line values of the Z variometer using BMZ 35.

The Absolute Inclination Instrument. An Earth Inductor by the Cambridge Instrument Company, in conjunction with a Broca galvanometer, is used to determine magnetic inclination. Determinations are normally made on weekdays. 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 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 about 30γ 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.44, 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 5γ but less than 10γ is reckoned as "1"; an excess between 10γ and 20γ as "2"; between 20γ and 40γ as "3"; between 40γ and 70γ as "4"; between 70γ and 120γ as "5"; between 120γ and 200γ as "6"; between 200γ and 330γ as "7"; between 330γ and 500γ as "8"; greater than 500γ 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.

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, 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 coefficients are adjusted for non-cyclic change during 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 Tables 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 $24^{\text{h}} \text{ minus } 0^{\text{h}}$. The quantities are computed from Tables I to III, the value of 0^{h} or 24^{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 XVB 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, 1951

Throughout the first four months of the year until April 30 readings were taken at 09 00 U.T. of the following:- barometer, dry-bulb and wet-bulb temperatures, maximum and minimum air temperatures, solar maximum and grass minimum radiation and rainfall. The maximum and minimum thermometers in the revolving stand were also read. In addition sunshine and night-sky records and a weather diary were maintained.

From May 1 readings of the barometer and of the solar maximum thermometers, together with those of the maximum and minimum thermometers in the revolving stand, ceased. At the same time the weather diary was discontinued.

HERSTMONCEUX METEOROLOGICAL OBSERVATIONS, 1951

Sunshine Recorder. A Campbell-Stokes sunshine recorder, M.O. 284/48 (sphere No. 1142/48), brought into use on July 1, 1950, is mounted upon a specially constructed brick pier on the east turret at the South Entrance of the Castle. With this instrument sunshine records were secured throughout the year.

Night-Sky Camera. This instrument was constructed in the workshop at Greenwich and consists of a simple quarter-plate camera, protected by a surrounding weather proof box, and incorporating an ordinary 2 dioptic spectacle lens, of focal length approximately 48 cms. The working aperture is 19 millimetres.

The camera is mounted on the roof of the Solar building and the shutter is opened and closed at the appropriate times by hand. It was brought into regular use on July 6, 1950.

The following are the symbols which have been adopted for clouds and weather.

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 gale
- 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 . 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 GREENWICH OBSERVATORY

ABINGER MAGNETIC STATION

Results of Magnetic Observations

1951

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

* International Quiet Day. ** International Disturbed Day.

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

* International Quiet Day. ** International Disturbed Day.

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h
8° + Tabular Quantities																									
May																									
1 **	71.4	66.9	66.2	68.6	67.3	65.9	71.2	70.7	68.9	70.9	73.3	75.0	77.5	78.3	78.9	78.7	78.7	75.5	72.7	66.3	64.2	50.2	51.3	44.4	
2 **	50.1	72.4	70.6	68.2	67.0	66.5	64.4	67.0	69.4	72.0	76.6	79.3	84.7	85.6	79.5	79.6	78.5	72.4	73.0	71.0	71.9	68.3	65.4	71.0	
3	76.6	71.2	70.0	71.0	70.8	70.4	69.4	69.3	70.4	73.0	75.0	78.4	81.0	81.2	81.9	78.2	76.5	75.9	64.5	71.4	74.1	73.0	71.7	70.1	
4	75.0	63.4	68.0	68.4	69.6	67.5	68.0	67.8	69.6	72.6	75.5	78.4	80.4	80.7	80.0	77.4	76.0	71.0	73.0	70.4	70.7	72.7	73.5	73.4	
5	73.4	73.5	73.0	72.6	71.9	70.5	69.4	69.0	70.2	73.0	75.3	77.9	80.2	80.4	78.8	77.4	75.3	73.7	73.0	73.4	72.8	73.0	70.5	69.0	
6	69.2	71.0	72.1	70.0	69.8	69.5	66.1	67.7	70.0	71.3	75.6	78.4	81.3	82.3	82.0	78.1	76.2	75.0	73.8	71.0	68.6	70.9	72.0	72.1	
7	74.0	73.4	71.8	74.0	72.5	70.8	69.0	67.4	68.9	71.0	73.5	77.4	80.7	82.6	80.4	77.5	75.6	74.6	73.4	71.0	72.2	73.0	70.5	70.9	
8 *	72.0	72.0	72.0	71.4	70.6	70.0	69.1	69.0	69.6	71.9	74.7	78.3	80.5	79.9	79.1	78.2	76.6	75.3	74.2	73.0	71.7	73.0	73.3	72.9	
9 **	71.4	71.0	71.0	73.0	70.5	70.0	69.0	69.1	70.9	73.6	78.1	80.0	82.3	83.7	82.6	81.4	80.0	78.5	80.3	78.5	73.5	76.6	75.5	67.6	
10 **	69.0	70.0	68.5	68.6	69.5	70.5	72.2	71.8	73.9	74.0	75.8	76.8	76.9	79.5	80.0	75.0	75.6	76.7	75.0	72.8	70.0	72.2	73.7	72.7	
11	73.3	74.3	73.5	70.9	69.9	69.1	68.9	68.7	66.5	65.8	68.9	73.1	76.1	79.0	79.0	78.6	78.0	77.2	76.4	74.6	74.5	74.5	70.0	72.0	69.7
12	76.7	73.9	73.9	72.5	70.7	71.6	71.3	69.4	69.5	71.0	72.4	75.0	78.0	79.0	77.5	77.0	76.8	70.7	71.0	73.0	73.4	74.6	74.1	71.7	73.3
13 *	73.0	72.5	72.5	72.0	71.0	70.0	70.1	70.4	70.7	71.4	73.4	75.8	78.7	80.0	78.7	76.5	75.3	74.1	73.0	73.5	74.4	74.0	74.0	73.3	
14	72.2	72.4	73.9	75.0	71.5	68.1	67.4	66.6	66.0	67.3	69.0	70.7	73.2	76.7	78.0	78.2	76.6	75.5	73.8	71.6	73.5	71.4	69.5	70.8	
15	65.2	69.6	73.9	70.0	67.9	66.5	66.3	66.0	67.0	71.0	73.4	77.5	80.5	79.6	78.2	76.9	76.2	75.4	74.0	71.4	69.2	71.6	70.8	69.0	
16	65.5	66.1	66.7	69.9	69.5	69.8	68.2	67.6	67.0	70.0	73.1	74.3	78.0	79.9	79.0	76.9	74.6	73.8	73.5	72.3	70.4	71.8	73.0	72.2	
17	70.6	71.5	70.3	70.1	70.2	72.8	72.5	70.5	69.2	73.0	77.7	80.8	82.4	81.6	82.0	79.1	77.5	72.3	72.5	72.3	71.1	72.7	71.4	69.0	
18	70.7	70.1	71.5	71.2	67.0	66.2	65.7	65.1	67.0	69.0	71.4	74.9	80.4	82.0	79.9	78.0	75.4	73.6	73.2	74.0	73.6	72.4	73.5	72.6	
19	70.0	73.0	71.4	69.0	68.4	68.1	66.9	66.0	67.0	69.0	73.0	76.2	79.0	80.5	77.8	75.2	73.7	72.5	72.1	71.5	70.0	71.7	72.5	73.0	
20 *	73.5	73.1	73.4	71.8	68.4	66.9	64.6	64.6	64.9	67.3	71.0	75.6	80.0	83.0	82.1	81.0	78.9	75.9	73.5	72.7	72.0	71.8	72.6	72.0	71.9
21 *	72.2	71.3	70.7	69.3	67.5	66.3	64.0	64.2	66.4	70.2	74.2	79.0	81.9	82.7	81.4	79.0	77.3	75.8	74.5	72.6	72.8	72.6	72.2	71.5	
22 *	70.4	71.8	73.6	71.0	68.6	66.4	65.3	65.5	66.5	68.1	71.0	75.9	79.0	81.0	82.1	80.8	77.7	75.1	73.5	72.8	73.5	73.0	72.6	72.2	
23	72.3	72.3	69.5	67.5	67.5	67.6	66.6	65.7	65.7	67.8	72.7	78.9	83.3	82.2	81.0	80.5	79.9	78.8	77.0	75.0	66.4	64.9	71.6	73.3	
24	74.5	70.7	69.5	72.0	73.3	73.9	70.0	69.0	69.5	69.7	71.5	75.0	77.8	78.4	79.6	79.3	78.1	76.0	74.8	73.0	73.0	72.0	70.0	71.5	
25	72.4	73.1	73.4	72.4	70.3	68.2	67.0	67.5	66.5	67.9	70.7	74.6	78.9	80.8	80.6	79.6	78.0	78.0	75.8	74.0	73.9	73.3	72.7	72.2	69.0
26 **	67.3	68.4	68.4	68.6	69.0	69.0	69.2	68.2	68.4	68.4	70.1	73.5	76.6	79.0	81.6	82.3	85.6	86.0	76.0	76.3	73.8	71.4	69.4	67.6	72.1
27	69.0	58.5	57.4	65.0	65.5	64.6	64.8	65.0	66.0	68.7	71.8	73.0	75.2	77.2	78.0	77.1	76.6	75.5	75.1	74.9	74.0	73.4	71.6	71.0	
28	71.3	70.3	71.0	70.0	66.9	66.0	66.4	67.4	68.4	68.6	70.6	72.2	74.2	75.6	77.7	77.1	76.1	75.2	74.6	74.2	74.0	73.8	73.1	73.0	
29	73.0	72.4	72.0	71.0	69.9	69.8	69.1	67.0	69.5	69.3	70.0	71.8	75.7	77.5	79.1	78.8	78.0	77.4	76.1	74.6	74.0	73.8	72.0	69.4	
30	72.5	72.9	72.6	71.1	69.8	68.3	68.1	68.2	68.1	68.0	70.2	73.9	77.4	80.3	79.6	77.4	75.0	73.8	73.7	73.5	72.7	72.2	71.5	73.4	
31	72.5	72.4	72.5	73.1	70.0	68.7	67.5	66.9	67.2	67.7	71.3	74.3	77.0	77.7	77.0	75.9	74.4	73.5	73.4	73.2	73.4	73.2	73.0	73.0	
Mean	71.0	70.8	70.8	70.6	69.4	68.6	67.9	67.8	68.5	70.6	73.6	76.7	79.6	80.4	79.7	78.2	76.9	74.8	73.7	72.9	72.0	71.5	71.3	70.6	
Mean *	72.2	72.1	72.4	71.1	69.2	67.9	66.6	66.8	68.1	70.5	73.8	77.8	80.6	81.1	80.5	78.7	76.6	74.8	73.6	72.8	72.8	72.0	72.4	72.4	
Mean **	65.8	69.7	68.9	69.4	68.7	68.4	69.2	69.4	70.3	72.1	75.5	77.5	80.1	81.7	80.7	80.1	79.8	75.8	75.5	72.5	70.2	67.3	66.7	65.6	
June																									
1	72.0	71.3	71.7	69.6	69.0	70.0	68.6	67.7	68.2	68.8	72.0	76.1	78.6	80.0	80.5	81.6	78.8	78.7	76.4	75.2	74.7	73.0	71.1	72.1	72.6
2	72.1	71.0	70.0	66.9	70.5	68.4	68.0	66.1	67.0	70.4	74.0	77.4	79.0	80.0	76.6	77.0	75.8	74.2	71.0	73.5	69.0	70.5	71.9	72.0	
3	66.4	69.7	70.0	69.4	67.6	66.5	68.5	69.1	70.5	71.6	73.6	77.0	79.5	78.8	77.6	76.5	75.5	75.2	74.0	73.8	73.3	72.8			

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 5

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
July																										
1	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'	'
2 **	70.7	71.5	68.4	68.1	68.8	68.0	67.5	67.2	66.7	67.9	71.3	75.1	78.5	80.1	79.6	79.1	79.0	76.1	72.1	69.8	70.3	70.6	70.1	64.6		
3 **	71.4	60.9	62.3	74.5	78.5	77.2	75.0	70.2	64.6	65.9	73.6	75.7	77.4	78.1	78.1	75.9	76.8	76.9	74.0	71.6	66.1	68.5	69.4			
4	72.1	72.3	69.1	67.9	67.2	67.8	65.7	63.6	63.5	66.1	71.1	75.1	77.7	79.5	79.7	78.1	77.7	75.1	71.7	70.1	72.1	70.8	67.1	68.7		
5	68.9	69.5	72.0	71.6	69.6	73.5	67.9	64.9	64.5	66.3	68.6	71.5	74.1	75.8	77.4	75.9	74.6	73.6	73.2	72.1	70.7	71.1	72.1	73.3		
6	72.5	72.1	70.8	70.2	70.1	71.4	71.2	68.8	66.2	68.3	71.2	76.3	77.4	78.5	78.5	77.1	75.7	74.5	73.1	72.6	72.2	73.0	73.0	72.2		
7	70.7	71.5	71.4	70.5	69.5	69.0	67.0	67.0	67.0	67.7	72.1	74.5	77.4	79.4	80.3	78.6	78.3	76.0	75.0	72.4	72.5	71.6	72.0	70.6		
8	69.6	69.5	69.8	69.0	67.8	67.0	65.7	65.7	65.4	66.9	68.7	71.5	74.1	76.0	76.1	76.0	75.0	73.7	73.0	72.5	72.5	72.0	72.0	67.8		
9	70.0	70.2	70.6	71.0	70.3	66.6	65.0	65.3	65.1	67.6	71.5	74.6	77.1	78.5	77.6	76.5	75.5	74.9	74.0	73.5	72.6	70.0	69.9	67.9		
10 *	67.0	70.4	71.1	72.3	68.7	65.0	65.2	64.4	67.0	70.0	71.8	74.7	77.6	79.0	80.0	80.1	77.9	77.3	75.3	73.7	72.3	72.3	71.0			
11	71.6	69.5	70.0	70.0	68.1	67.4	65.8	65.7	64.7	66.0	67.5	69.8	72.6	74.1	75.5	76.6	76.4	76.0	74.6	72.0	70.0	71.1	71.1	70.7		
12 *	70.7	70.7	70.0	69.8	69.0	68.4	67.6	67.5	67.3	68.8	70.5	72.6	75.2	78.3	78.4	77.7	77.5	75.1	73.0	73.0	73.0	72.7	72.0	70.0		
13 *	70.0	66.9	66.6	64.8	69.7	67.4	67.4	67.4	67.1	67.0	68.3	70.0	74.4	77.9	78.8	79.0	78.1	77.0	75.0	73.4	72.1	71.4	72.0	71.6		
14 *	71.1	69.8	70.6	70.6	70.1	69.1	69.1	69.0	66.4	66.8	71.1	73.6	77.1	79.1	78.7	77.7	77.5	74.4	73.4	72.7	72.1	72.6	72.5	72.5		
15	69.7	69.1	69.7	68.7	67.6	66.2	66.2	66.2	66.1	67.1	68.1	70.1	73.0	73.5	76.3	76.7	77.1	77.5	75.8	75.7	75.5	75.0	72.9	65.1		
16	71.1	73.1	73.1	72.1	67.1	64.5	65.8	66.0	66.4	68.7	72.1	75.5	78.4	80.9	80.7	80.1	76.3	76.1	75.4	73.2	72.6	75.1	73.9	73.1		
17	73.2	72.6	73.7	71.1	68.3	65.8	64.1	63.5	64.8	69.4	73.1	75.1	77.4	81.2	80.5	79.1	78.3	73.1	72.0	71.5	74.1	74.6	73.9	73.3		
18	74.1	72.6	70.9	71.8	73.0	68.8	67.8	66.1	69.2	70.4	73.9	79.0	81.3	81.1	81.1	80.5	78.6	78.5	76.6	71.9	71.1	72.6	73.7	70.6		
19	72.8	73.1	73.6	72.3	69.6	66.9	66.1	65.8	66.4	68.1	69.3	72.1	74.5	76.2	77.1	76.6	75.8	73.4	72.7	73.1	71.9	71.3	72.1	72.2		
20	72.5	72.6	74.8	69.8	65.7	66.0	66.1	65.5	64.8	66.2	69.6	73.8	76.5	78.3	78.7	78.3	75.3	73.7	72.9	72.6	72.8	72.2	71.4			
21	70.2	72.0	74.0	72.9	70.9	68.6	66.8	66.3	67.1	68.2	71.2	74.1	76.9	78.6	78.8	77.1	74.7	73.1	72.1	71.9	72.6	72.8	72.9	72.4		
22	72.8	72.0	69.6	72.3	77.3	70.9	67.4	69.4	69.4	70.1	71.6	70.6	73.5	76.7	77.6	77.4	77.5	78.1	76.2	72.6	72.6	72.8	71.2	69.5		
23	69.5	73.1	65.3	67.6	67.2	66.8	66.4	66.5	66.5	68.1	69.6	73.5	74.5	77.3	78.2	77.8	77.2	77.0	74.8	72.6	71.9	71.6	72.9	70.7		
24 *	71.4	70.1	69.4	70.1	71.7	70.9	69.1	67.6	67.3	69.1	70.9	73.1	75.1	76.3	76.6	76.3	75.3	74.2	73.3	72.9	73.0	72.5	71.7	71.2		
25	70.7	70.6	70.1	69.9	69.0	68.6	69.8	68.0	66.5	68.8	70.3	73.1	74.8	76.7	77.0	80.1	78.8	78.2	76.7	70.5	71.1	72.1	70.6	71.7		
26	71.4	68.9	70.0	67.6	66.8	69.2	70.4	70.9	67.1	67.9	70.5	74.4	75.3	76.1	76.0	77.5	70.5	74.0	74.0	73.5	73.5	73.5	71.7	73.4		
27	58.1	67.5	71.7	71.0	70.9	67.9	66.4	67.1	67.8	68.3	71.0	72.0	74.1	76.4	76.7	76.7	74.9	74.5	74.0	73.1	72.4	72.1	73.2	72.7		
28 **	71.1	67.5	67.7	69.6	66.6	67.5	69.8	69.0	68.5	68.5	70.5	73.1	74.1	75.6	76.5	76.7	76.4	72.4	72.5	72.8	67.8	68.7	70.6	72.9		
29	72.5	72.4	70.6	69.0	69.8	69.0	68.1	67.4	67.4	68.0	69.7	72.1	74.5	76.5	76.5	74.7	71.0	72.1	72.9	70.6	71.0	71.5	71.7			
30	70.6	70.6	70.3	69.9	70.0	69.9	67.8	67.8	66.0	66.5	68.0	71.4	74.5	75.5	76.4	76.7	75.5	74.4	72.4	70.3	69.6	71.2	70.1	68.4		
31 **	70.0	69.3	66.0	65.4	64.1	66.8	68.4	67.9	68.7	70.2	73.2	77.2	80.7	79.2	81.0	77.0	75.8	73.3	73.3	72.1	71.9	71.6	71.4	70.7		
Mean	70.9	70.4	70.1	70.1	69.4	68.4	67.4	66.8	66.8	68.6	71.1	74.1	76.5	78.0	78.2	77.4	76.0	74.7	73.3	72.1	71.9	71.6	71.4	70.7		
Mean *	70.8	69.3	69.2	69.7	69.1	68.5	67.3	66.9	66.6	68.3	70.0	72.7	75.6	77.3	77.6	77.2	76.3	74.9	73.5	72.5	71.9	72.2	71.8	71.2		
Mean **	71.2	67.8	67.0	69.0	68.9	69.7	69.9	68.3	66.5	67.8	71.8	75.1	77.0	77.7	78.3	77.4	74.5	74.3	73.1	70.6	70.5	69.8	70.4	70.6		
August																										
1 **	66.0	65.3	65.7	65.5	65.2	65.0	63.6	64.4	66.0	69.0	73.1	78.7	81.8	80.5	80.8	79.1	79.6	78.6	72.8	75.9	73.8	72.4	68.8	73.9		
2	67.3	66.0	67.6	66.7	65.1	64.5	65.1	67.2	65.9	67.5	71.4	74.9	77.1	78.0	78.4	76.0	74.9	73.5	71.5	72.4	72.3	71.0	71.0	71.5		
3 *	71.0	70.2	69.5	70.7	68.3	67.0	67.3	68.1	68.5	70.0	73.1	74.6	78.0	78.0	76.5	76.7	76.4	75.0	73.7	72.8	72.7	72.0	71.1	71.1		
4	70.4	69.6	65.9	73.6	72.4	67.0	66.6	64.0	65.0	67.0	70.0	75.0	77.4	79.7	80.5	78.8	75.									

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
September																										
1 *	68.7	69.8	70.0	68.9	68.1	66.8	66.5	66.5	68.0	70.8	74.0	76.2	76.8	76.0	73.6	72.0	70.4	70.7	71.6	71.2	71.4	70.4	69.3	69.6		
2 *	69.5	68.5	69.9	68.5	67.8	66.5	65.5	65.6	67.0	69.1	73.4	76.3	78.0	78.0	75.7	73.1	71.4	70.6	71.1	71.7	71.9	71.6	71.3	70.3		
3 *	72.0	69.8	68.0	68.0	66.6	66.7	65.4	64.6	67.0	70.3	75.6	78.4	81.0	81.4	77.4	74.0	72.4	71.7	71.7	72.0	71.4	71.0	70.6	68.5		
4 *	68.4	70.0	69.6	68.7	67.6	65.6	64.9	65.5	67.0	69.9	73.6	77.6	80.9	81.0	78.7	74.4	72.9	71.6	72.6	72.0	71.2	72.6	70.2	69.0		
5	69.4	68.8	70.0	67.6	67.2	67.6	66.6	65.9	67.0	69.4	73.5	77.6	79.0	78.6	76.8	75.4	73.1	72.3	71.9	72.3	72.5	72.0	68.6	67.0		
6	65.9	69.4	68.8	67.1	67.5	67.0	64.0	63.5	64.5	69.4	72.0	76.4	78.1	79.4	77.5	76.3	74.7	73.1	72.4	71.1	69.0	70.6	68.0	67.6		
7	67.9	68.7	68.4	68.4	68.1	68.1	67.5	67.0	68.0	70.5	74.0	77.3	79.5	80.0	77.8	75.1	73.8	72.4	72.4	65.7	67.2	69.5	70.6	71.0		
8	71.0	70.5	70.4	70.0	70.4	69.6	67.7	66.0	66.9	68.1	71.3	74.4	77.0	78.6	76.4	75.3	73.6	73.0	69.0	71.6	71.9	71.5	70.4	68.6		
9	67.8	68.2	70.4	69.3	67.6	67.0	66.5	67.0	67.6	70.2	75.5	78.6	80.7	79.2	78.6	75.9	74.5	73.7	70.9	70.6	71.8	70.0	67.1	68.4		
10	65.4	68.6	70.1	70.3	68.4	67.7	70.0	70.4	72.5	73.5	75.1	78.0	79.5	79.3	74.4	74.9	75.2	72.5	70.5	72.0	72.1	72.0	71.7	70.7		
11	70.2	72.1	67.1	67.4	67.0	67.0	66.9	67.0	69.9	70.0	71.7	76.4	78.4	78.0	78.0	76.9	76.6	75.0	70.6	62.0	63.3	61.0	61.1	68.4		
12	68.0	67.8	66.9	67.4	67.9	66.9	65.7	65.5	67.9	69.7	74.0	75.0	77.7	76.0	74.5	72.3	72.0	71.3	70.5	68.6	67.8	69.9	67.0	65.5		
13	66.0	66.4	67.0	67.0	72.0	73.7	74.0	68.5	67.3	68.0	70.9	74.4	75.1	75.6	77.0	74.0	74.4	72.9	64.0	68.0	66.0	64.6	68.6	60.2		
14	68.5	70.4	68.0	68.2	65.8	64.9	64.8	66.4	65.4	69.3	73.0	77.4	78.7	77.7	78.8	76.0	73.0	70.3	69.0	66.9	68.5	69.2	70.4	72.0		
15	73.9	74.9	68.4	66.0	65.5	67.4	67.5	69.0	74.5	75.6	75.4	78.0	79.7	79.8	77.9	73.6	73.1	72.4	72.4	71.4	72.6	67.0	66.7	67.4		
16 **	69.7	70.0	68.0	68.7	69.0	75.0	78.0	69.6	68.8	70.1	74.1	74.3	78.8	77.6	73.0	75.8	75.5	78.0	70.0	71.0	70.8	55.9	67.9	69.5		
17	64.5	64.7	69.0	70.0	70.7	70.6	71.1	69.5	70.7	70.5	72.4	75.4	76.6	77.9	79.9	75.5	72.1	70.0	69.2	71.3	70.5	66.3	64.9	67.2		
18	68.8	72.9	74.2	69.4	68.5	71.4	67.9	67.2	67.0	70.0	73.8	76.4	76.4	77.1	76.0	73.6	71.8	69.0	62.5	69.6	69.0	70.4	71.1	70.4		
19 **	71.4	69.0	67.9	68.0	67.7	68.6	67.8	66.5	65.5	67.4	67.5	69.4	73.3	77.4	78.7	78.0	73.0	70.6	64.0	65.6	72.2	64.1	67.5	67.3		
20 **	70.0	69.2	68.5	70.0	72.6	74.3	74.0	74.0	70.2	75.4	77.5	73.7	76.6	74.2	74.0	72.2	72.4	76.6	53.6	65.4	67.5	70.0	67.2	69.9		
21 **	71.6	66.1	66.1	65.2	75.6	79.1	74.9	69.0	72.1	73.0	75.3	76.1	73.6	75.1	73.6	70.8	66.1	68.1	68.4	64.7	67.0	68.9	66.7	65.1		
22 **	67.2	69.4	66.6	65.5	77.4	81.0	72.2	69.6	70.2	67.4	72.3	75.2	73.6	75.1	71.6	69.8	68.2	71.6	56.6	55.7	68.9	64.9	71.2	73.5		
23	68.7	71.2	67.2	72.2	66.2	66.7	69.4	66.7	67.2	67.2	68.5	70.2	72.5	73.2	71.7	68.6	71.7	70.9	70.5	69.7	70.8	65.5	67.9	69.0		
24	71.2	67.1	65.5	66.9	71.8	76.7	71.5	68.4	66.9	67.5	69.5	71.9	73.5	74.7	72.0	72.5	72.3	69.0	70.0	68.9	66.9	68.5	67.3	69.7		
25 **	73.6	71.7	68.2	68.9	70.7	73.2	73.5	74.9	73.5	69.1	70.4	71.0	75.3	75.7	75.2	74.7	73.2	72.9	73.1	73.7	79.6	78.2	67.2	67.9		
26	49.5	37.4	41.2	45.3	52.5	62.0	64.2	64.6	65.2	66.2	68.6	72.0	73.7	73.5	72.5	71.2	70.3	71.0	70.6	70.7	71.3	69.9	69.3	69.1		
27	70.2	61.3	55.6	61.2	58.6	62.7	64.2	64.6	66.2	65.8	70.8	73.2	73.4	77.7	75.2	71.9	72.7	72.2	70.5	70.2	70.6	69.2	67.3	66.2		
28	60.6	66.5	59.2	68.1	68.1	68.3	68.0	67.7	67.7	68.1	69.5	71.6	73.3	73.9	73.9	74.4	73.0	72.4	71.2	70.6	70.3	70.0	67.9	67.7		
29	70.1	67.8	67.2	68.1	68.7	68.9	68.2	66.6	66.2	66.8	69.0	71.7	73.9	75.9	78.6	78.8	78.9	69.9	67.5	71.2	64.3	64.8	65.4	66.3	66.7	
30 *	66.2	68.2	68.2	67.0	68.3	68.5	67.2	66.6	66.2	67.2	70.5	72.2	75.2	75.5	75.6	75.1	73.8	72.2	71.5	71.5	70.7	70.2	69.7	68.2		
Mean	68.2	67.9	67.4	67.3	68.0	69.3	68.5	67.5	68.2	69.4	72.4	74.9	76.7	77.0	75.7	73.9	71.7	71.0	68.9	68.8	69.1	68.1	68.4	67.7		
Mean *	69.0	69.3	69.1	68.2	67.7	66.8	65.9	65.8	67.0	69.5	73.4	76.1	78.4	78.4	76.1	73.5	71.9	71.2	71.7	71.5	71.2	71.2	70.2	69.1		
Mean **	70.4	69.3	67.5	67.7	72.4	76.5	74.5	71.4	71.0	71.0	73.9	74.1	75.1	75.1	75.1	73.3	73.6	66.4	69.3	62.8	64.6	67.5	65.2	68.2		
October																										
1	68.2	68.0	68.3	68.4	68.7	68.7	68.2	67.4	66.3	67.0	69.2	72.6	74.7	75.2	74.7	74.2	73.4	73.4	71.9	71.1	70.1	69.8	69.2	67.8		
2	67.6	65.2	64.4	64.5	67.2	68.2	70.2	69.0	67.4	67.0	68.6	71.6	74.0	74.5	74.6	73.6	72.7	72.2	70.9	70.2	70.0	67.6	68.8	69.2		
3	69.2	68.6	67.8	68.3	68.4	68.8	68.6	67.6	66.9	67.7	70.8	75.2	73.7	73.6	72.5	72.3	71.2	71.6	70.5	70.2	68.7	67.6	69.4			
4 *	69.6	69.2	68.9	69.2	69.2	68.8	67.9	66.7	65.9	67.1	70.2	73.7	75.7	75.7	74.9											

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 7

TABLE I. - HOURLY MEANS OF MAGNETIC DECLINATION

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
November																										
1 *	69.1	70.0	69.9	69.8	69.5	69.1	69.1	68.1	67.1	67.1	68.9	71.8	74.0	74.4	73.4	72.5	71.5	71.5	71.5	71.2	70.4	70.1	68.4	67.1	67.9	
2	68.5	69.5	69.1	70.9	67.3	67.9	68.5	68.9	68.1	66.9	68.9	70.7	74.6	74.9	74.5	74.0	71.9	67.7	69.1	67.2	66.6	66.9	63.5	62.5	62.6	
3 **	63.8	64.2	67.7	66.6	65.9	67.5	68.6	69.5	69.3	70.5	69.0	70.5	74.5	74.0	73.9	73.5	72.1	70.3	68.8	69.5	65.2	59.5	56.5	55.6	55.6	
4	54.4	60.6	62.5	60.5	66.9	71.5	77.0	78.1	72.9	71.1	69.5	71.8	73.3	73.5	73.0	67.5	73.0	72.5	70.7	70.0	69.1	63.6	69.5	63.4	63.4	
5	63.5	65.9	66.5	69.5	71.8	70.1	70.5	70.5	69.0	67.7	70.0	70.2	71.5	72.5	72.5	72.0	70.5	70.5	69.3	65.9	69.3	69.0	67.7	65.1		
6	66.9	68.6	69.2	69.8	71.0	70.3	70.6	69.5	69.7	70.4	71.6	73.5	74.6	76.2	78.1	77.5	76.5	74.5	69.3	62.9	68.9	68.0	68.5	67.9		
7	64.3	64.9	62.2	61.3	65.3	66.9	67.8	68.5	72.3	70.9	70.8	73.3	71.6	72.5	72.5	73.0	72.2	72.5	72.4	70.5	69.2	68.5	67.9	67.1		
8	66.9	67.6	64.9	67.4	68.5	68.6	69.1	68.6	68.5	69.3	70.9	73.0	73.6	73.0	72.1	71.5	71.5	71.7	71.5	71.4	68.5	68.0	69.0	69.0		
9	69.1	69.5	69.1	69.5	71.6	70.7	70.1	69.1	68.6	68.4	71.5	71.1	73.0	74.9	77.5	77.5	77.9	75.5	74.9	72.1	71.4	70.5	69.4	67.3		
10 *	66.7	68.6	68.5	68.5	68.5	68.5	68.9	69.5	69.5	69.8	70.7	71.7	72.2	71.9	71.0	70.9	70.5	70.2	70.0	69.7	69.5	69.5	69.5	69.9		
11	69.5	69.9	70.0	69.9	69.5	69.1	68.8	68.4	68.1	68.5	70.5	72.5	73.1	73.3	71.9	72.1	71.6	71.5	70.9	70.1	68.0	62.6	67.5	66.2		
12	65.1	68.9	65.4	68.1	69.1	71.9	71.2	70.4	70.5	72.1	73.1	74.0	73.5	74.3	74.7	71.5	72.7	71.9	71.2	70.1	69.2	69.0	67.5	66.6		
13 **	69.5	69.5	69.7	70.2	68.4	69.5	69.1	68.5	69.0	70.8	72.9	74.5	76.8	77.2	77.6	77.5	79.5	68.9	66.1	57.2	57.5	57.5	63.1			
14 **	66.9	62.2	65.5	68.7	69.4	71.0	70.4	70.4	68.2	67.8	68.8	72.1	74.2	74.8	72.0	71.1	69.7	62.9	65.0	59.6	57.0	63.5	61.2	62.6		
15 **	62.1	61.5	65.6	70.7	69.5	70.3	70.5	69.5	68.3	68.0	69.1	71.3	73.5	73.9	68.6	72.0	68.5	67.5	69.6	67.5	66.5	66.6	67.5	68.7		
16	64.5	65.9	68.3	70.3	72.0	71.1	69.9	69.2	68.9	68.2	69.2	71.5	72.0	71.1	72.3	71.9	68.6	66.3	70.5	68.0	67.1	68.3	68.4	68.3		
17	68.2	69.2	69.2	69.5	70.3	70.7	72.4	71.5	70.5	70.5	71.1	72.2	72.9	73.5	73.5	72.8	72.5	72.7	72.9	70.9	60.1	49.9	56.5	64.5	68.4	
18 *	68.5	69.5	70.5	70.7	50.7	70.1	69.5	68.8	68.5	68.5	69.5	71.0	71.4	72.3	72.3	71.7	66.6	70.3	70.1	68.5	66.0	66.6	67.4	69.3		
19 *	69.2	68.9	68.2	68.9	68.4	69.4	69.3	68.0	68.7	68.2	68.8	72.1	71.2	70.7	70.7	71.2	71.2	71.2	71.0	66.9	64.9	69.0	65.5	62.8		
20	66.4	68.8	70.6	70.3	68.9	69.1	69.2	69.1	69.8	69.8	70.8	71.4	71.8	72.4	73.6	76.1	74.6	74.1	70.9	62.6	68.4	66.0	63.9	63.9		
21	64.9	64.3	65.7	67.6	66.9	67.6	68.9	69.4	70.1	70.2	70.5	71.4	71.4	70.8	70.4	71.5	71.3	71.4	72.0	70.4	67.2	68.1	68.8	66.3		
22	62.0	65.6	68.4	68.7	69.0	69.1	69.5	69.4	70.4	70.0	70.9	71.3	71.9	72.0	72.0	71.5	71.9	71.9	71.2	68.8	70.6	69.9	66.9	62.3		
23	66.8	68.9	66.2	69.0	68.7	69.0	69.8	69.4	69.8	70.4	71.3	71.4	72.0	72.8	74.5	73.8	70.9	71.8	68.9	67.8	62.1	63.8	67.4	68.9		
24	67.9	69.4	69.4	69.7	68.0	67.8	69.0	68.9	68.8	69.3	70.3	71.6	72.8	76.6	73.7	72.7	72.4	70.8	69.8	68.6	67.5	68.0	69.1	68.6		
25	68.9	69.0	68.4	68.7	69.0	68.4	68.5	68.5	68.8	70.8	72.8	72.3	73.4	73.9	76.4	74.1	71.6	71.3	70.4	67.6	66.9	70.9	64.1	64.5		
26	67.7	68.4	68.5	68.3	68.3	68.4	68.4	68.4	68.2	69.2	70.8	71.9	72.9	74.4	73.7	73.9	72.9	70.9	71.4	70.3	64.6	68.5	67.7	68.2	68.0	
27 *	67.3	66.4	67.7	68.5	68.6	68.7	69.0	69.1	69.4	69.2	69.9	70.6	72.4	72.7	71.5	71.1	70.5	71.0	71.2	69.5	69.2	68.9	67.0	67.3		
28	67.4	67.6	69.2	66.4	67.1	68.5	68.9	68.3	69.0	69.2	71.3	72.4	73.0	73.2	71.7	72.2	71.7	70.9	69.6	62.4	64.0	59.4	62.9	65.8		
29 **	66.9	70.1	72.4	70.4	69.3	69.6	69.8	68.8	68.8	69.3	71.8	70.9	69.9	69.7	71.8	71.0	64.4	71.4	70.1	66.7	64.1	63.7	65.9	63.3		
30	64.2	67.8	69.2	69.4	69.9	69.4	70.2	69.4	67.8	67.4	68.4	70.2	72.6	73.0	71.4	72.8	72.1	70.9	70.4	67.3	65.6	66.0	66.8	67.5		
Mean	66.2	67.4	67.9	68.6	68.9	69.3	69.1	69.3	69.3	69.4	70.4	71.9	73.0	72.6	71.9	71.0	71.0	70.4	67.8	66.2	66.2	66.3	65.9			
Mean *	68.2	68.7	69.0	69.2	69.0	69.2	69.2	68.9	68.6	68.6	69.7	71.4	72.4	72.7	71.9	71.5	70.8	70.8	70.7	69.5	68.8	68.5	67.3	67.4		
Mean **	65.8	65.5	68.2	69.3	68.5	69.6	69.7	69.7	69.3	68.9	69.2	69.8	72.0	74.0	73.9	72.8	73.0	70.8	68.2	68.1	65.9	62.0	62.2	61.7	62.7	
December																										
1	69.0	69.1	72.4	69.9	69.9	69.0	69.4	69.4	68.4	67.9	68.6	70.5	73.7	73.3	72.4	71.4	70.0	69.8	69.4	68.6	64.6	65.7	65.3	62.4		
2	64.3	66.9	68.8	69.4	70.8	71.4	72.0	69.3	69.0	69.6	70.1	72.2	73.8	74.0	74.6	71.6	70.5	69.5	67.2	64.9	65.9	64.3	63.5	64.2		
3	66.0	67.7	67.9	68.2	69.0	70.1	69.3	69.2	69.7	69.9	72.0	73.0	74.7	75.7	74.6	75.5	74.3	73.5	70.4	68.5	65.5	65.8	64.4	61.1	62.8	
4	66.9	69.4	69.4	70.1	69.2	68.5	69.2	69.4	70.4	70.8	71.9	70.4	71.4	73.7	75.8	74.9	70.9	70.4	64.1	65.4	66.8	68.0	63.9	65.9		
5</																										

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
January		18000 γ + Tabular Quantities (in γ)																								
1	630	627	637	649	649	652	653	658	662	663	662	663	663	658	648	646	648	637	653	653	646	636	636	640	640	
2 **	641	638	639	635	636	653	670	665	661	654	648	649	653	663	650	635	631	635	638	645	660	640	640	648	648	
3	646	643	645	645	653	665	651	653	650	650	648	653	657	650	645	638	636	640	643	655	646	645	646	647	647	
4 *	639	638	639	641	643	643	648	649	649	645	649	656	655	653	650	646	654	659	652	651	658	653	651	653	651	
5	649	646	645	651	655	656	659	659	659	650	649	652	661	660	662	656	657	650	646	643	643	667	648	648	643	
6 *	640	640	641	646	650	651	652	651	646	640	641	646	653	657	654	649	648	650	650	645	645	651	650	649	649	
7 *	648	648	649	655	657	655	655	654	648	638	635	636	645	656	658	653	650	648	652	651	650	646	646	648	648	
8	648	655	655	660	663	666	666	665	653	653	646	653	650	640	635	650	656	658	658	653	649	649	650	650	650	
9 *	651	649	649	657	659	667	661	659	659	650	640	639	640	652	657	652	655	654	652	651	649	645	644	644	644	
10	643	642	645	646	650	655	655	652	650	644	641	644	652	659	660	664	644	610	599	625	630	616	616	632	632	
11	622	622	622	626	625	631	635	635	644	642	644	642	642	638	642	646	649	638	642	629	625	622	646	628	628	
12	635	629	636	640	648	654	640	634	632	622	613	628	631	635	628	618	625	632	644	642	649	645	642	635	635	
13	637	635	638	653	638	633	645	634	639	639	634	639	648	652	648	646	645	644	613	627	624	636	639	639	639	
14	635	628	630	636	632	641	650	647	646	636	626	622	628	622	622	637	647	635	629	634	640	647	632	634	634	
15	641	642	632	641	641	644	651	651	652	649	645	642	634	647	645	640	637	645	628	639	633	626	637	640	640	
16	639	628	629	634	640	642	642	649	645	645	637	637	629	613	639	635	614	628	622	638	654	651	638	632	632	
17	632	649	640	642	630	659	647	650	635	632	632	634	640	642	642	645	645	644	645	648	645	645	645	642	642	
18 *	644	641	642	645	649	652	658	657	652	648	641	642	645	644	644	634	645	648	648	652	650	649	662	654	654	
19	642	658	654	640	644	645	655	655	654	652	652	646	636	639	655	668	666	664	667	656	651	619	600	612	612	
20	619	636	627	627	636	641	647	648	646	642	639	642	648	652	645	652	653	652	648	649	647	648	646	647	647	
21 **	652	652	652	653	654	656	656	657	658	656	662	658	662	662	652	605	598	609	603	622	614	618	627	632	632	
22 **	638	647	645	645	633	642	622	642	635	620	619	626	602	590	581	627	635	632	620	624	609	639	615	644	644	
23 **	642	648	638	638	640	644	634	639	635	624	608	629	632	628	620	628	629	630	648	624	647	661	646	646	646	
24	644	639	642	645	645	652	644	642	637	635	630	628	622	634	638	637	639	642	644	642	644	645	641	642	642	
25	642	640	640	644	646	650	652	650	641	635	632	630	639	640	632	644	644	648	649	649	645	644	646	642	642	
26	642	642	644	649	651	654	657	660	655	652	648	652	655	661	658	650	644	649	604	590	594	622	635	636	636	
27	640	632	634	635	636	639	637	634	645	645	642	642	643	642	639	648	648	640	632	645	632	635	641	634	634	
28	630	643	632	640	634	641	639	643	647	642	636	645	644	644	644	648	635	638	630	631	625	622	627	629	635	
29	634	638	635	638	635	640	641	639	641	645	639	625	629	637	642	641	643	635	632	632	629	638	652	644	644	
30	636	632	637	641	639	639	645	657	650	648	650	650	647	643	643	650	644	626	631	641	627	620	616	616	637	
31 **	638	641	636	673	668	655	639	597	597	598	594	607	615	617	604	621	611	588	608	601	624	638	603	597	597	
Mean	639	640	640	644	644	649	649	648	646	646	642	638	640	642	643	642	642	641	638	637	639	638	639	639	639	
Mean *	644	643	644	649	652	654	655	654	651	645	640	642	648	653	651	650	649	651	652	650	649	651	651	649	649	
Mean **	642	645	642	649	646	650	644	640	637	630	626	634	633	632	621	621	618	620	628	626	636	629	629	633	633	
February		18000 γ + Tabular Quantities (in γ)																								
1	611	646	643	618	599	609	608	610	603	608	602	611	613	624	633	638	639	643	644	637	629	630	618	628	628	
2 *	629	630	627	627	631	639	641	639	638	637	635	636	637	642	643	641	637	641	648	646	643	639	637	648	648	648
3 *	639	637	637	637	639	644	647	647	639	636	635	641	648	651	649	647	648	648	651	648	647	643	648	648	648	648
4	649	650	650	651	651	651	651	653	653	645	637	627	631	629	627	623	613	609	630	644	641	641	641	641	641	
5	638	641	644	645	656	658	655	661	661	655	661	652	657	649	641	641	651	651	648	609	604	614	618	608	608	
6	614	664	620	637	651	621	621	636	613	621	602	614	618	627	633	631	624	628	634	638	644	648	647	648	648	
7	648	637	636	634	638	641	646	644	635	631	624	627	638	643	649	648	645	645	637	628	638	645</				

MAGNETIC OBSERVATIONS. ABINGER. 1951.

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TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY

* International Quiet Day. ** International Disturbed Day.

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h
May	18000 γ + Tabular Quantities (in γ)																								
1 **	672	682	659	661	668	654	642	653	631	613	618	636	636	628	635	647	657	679	691	622	590	627	589	548	
2 **	571	611	608	608	615	615	608	606	603	594	597	585	591	608	631	637	626	621	638	651	670	671	638	621	
3	636	639	635	630	633	633	627	611	604	618	625	625	641	651	657	626	656	662	698	655	651	655	648	666	
4	655	636	641	631	641	636	637	635	626	601	610	635	637	641	633	627	651	656	659	665	648	654	657	647	
5	647	647	645	646	644	645	644	641	631	627	628	635	637	645	651	658	657	659	661	663	657	657	651	662	
6	669	646	647	648	642	655	641	627	631	631	627	622	626	635	643	635	653	668	663	673	662	655	655	651	
7	652	656	650	651	652	651	647	641	626	621	617	617	625	627	635	642	653	660	664	661	660	659	662	656	
8 *	651	647	649	653	655	656	651	637	631	625	622	625	635	640	654	653	665	664	673	664	662	662	663	661	
9 **	659	657	657	668	668	665	664	651	628	623	632	641	647	653	640	647	656	666	693	708	684	704	730	704	
10 **	661	660	656	656	649	644	626	628	626	629	621	628	626	653	616	617	646	666	661	656	658	657	660	657	
11	653	660	655	647	652	650	646	627	622	610	614	616	615	620	641	647	644	653	640	662	666	662	662	650	
12	660	660	650	648	644	642	644	645	644	631	633	634	636	637	647	668	694	680	677	654	647	655	656	654	
13 *	651	650	649	650	650	652	654	650	648	641	638	634	640	643	653	660	662	662	663	665	670	664	666	671	
14	668	665	663	660	668	666	662	652	646	641	630	628	628	631	642	650	668	675	652	678	665	675	653	664	
15	651	662	657	669	670	665	655	651	651	653	656	657	657	655	675	675	675	672	669	660	655	655	654	658	
16	654	662	655	668	649	635	637	636	629	620	602	615	630	643	643	646	653	659	674	664	660	664	663	666	
17	655	663	671	662	649	637	654	642	623	616	630	632	646	639	650	658	656	689	681	672	657	643	638	642	
18	662	649	650	650	645	646	650	640	630	626	644	644	647	647	659	654	659	658	661	670	660	659	670		
19	652	650	656	650	655	650	645	643	632	640	647	649	656	645	630	644	654	651	664	670	669	660	654		
20 *	654	657	655	660	655	654	644	634	630	634	642	645	647	652	655	660	661	665	670	669	663	667	663	657	
21 *	656	659	655	657	659	655	648	642	634	631	637	645	659	667	670	669	675	678	679	680	675	675	671	673	
22 *	666	665	675	672	668	665	662	654	647	644	649	649	650	642	655	662	664	664	681	680	677	670	664	662	
23	661	670	662	655	657	664	657	657	655	652	631	614	607	619	621	654	656	666	669	670	687	661	674	674	669
24	657	648	655	659	660	654	655	654	641	632	635	640	640	652	656	669	654	679	662	661	664	669	669	661	
25	660	657	659	660	660	656	654	650	650	644	639	624	617	625	638	656	661	670	676	694	684	677	670		
26 **	685	665	663	665	676	677	671	661	651	645	650	652	641	655	647	707	688	704	686	675	645	621	628	625	
27	615	627	624	618	643	627	625	613	605	601	592	605	617	631	637	645	649	659	666	666	662	660	655	646	
28	645	647	661	655	657	661	661	648	641	642	644	647	654	655	653	671	672	668	669	667	666	666	661	661	
29	664	661	658	661	665	664	646	646	659	666	663	649	641	623	621	635	653	673	683	676	676	672	677	683	673
30	667	663	663	662	663	663	662	659	655	635	646	651	673	647	662	657	659	659	668	671	671	669	668	668	
31	664	661	665	666	668	668	666	662	654	653	649	645	641	631	642	655	664	666	671	674	679	672	680	678	
Mean	654	654	653	653	654	652	648	642	635	630	630	633	637	640	646	653	660	667	669	668	662	663	660	656	
Mean *	656	656	657	658	657	656	652	643	638	635	636	640	646	649	657	661	665	668	673	672	669	668	665	665	
Mean **	650	655	649	652	655	651	642	640	628	621	624	628	628	639	634	651	655	667	674	662	649	656	649	631	
June	18000 γ + Tabular Quantities (in γ)																								
1	677	683	680	675	667	667	676	673	671	667	661	659	660	669	654	645	643	671	675	687	669	656	662	662	
2	661	657	658	655	648	646	655	645	637	630	627	630	638	640	655	661	655	671	666	682	664	676	665	666	
3	683	654	652	655	655	645	635	630	628	633	637	643	651	651	667	669	665	666	667	669	666	663	667	668	
4	664	662	665	661	664	660	656	650	641	640	647	655	660	655	670	685	672	670	668	682	678	678	692	684	
5	672	672	687	674	670	666	658	657	652	652	656	656	653	649	655	655	665	668	677	680	683	691	677	682	
6 **	686	684	685	684	690	690	652	645	673	665	634	634	606	605	594	630	655	674	671	666	667	667	670	671	669
7	664	664	663	664	663	672	667	656	639	620	620	622	628	623	658	674	683	680	679	673	674	674	669	665	
8	670	664	669	670	684	663	648	648	640	633	628	627	628	651	655	695	704	679	667	676	679	670</			

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
July																										
1	661	675	656	653	655	654	655	651	649	652	655	653	649	655	653	660	655	663	695	659	663	662	688	696		
2 **	629	603	644	607	609	593	629	625	629	594	593	629	623	639	643	631	639	663	674	676	669	666	663	652		
3 **	657	659	653	646	643	629	634	639	626	613	610	604	635	638	634	667	668	681	657	674	667	668	661	664		
4	647	650	638	650	642	625	647	640	633	619	625	625	629	631	641	651	657	660	669	669	671	663	657	681		
5	656	652	649	649	645	649	645	642	643	633	625	629	620	635	649	655	664	664	664	662	671	669	669	669		
6	661	657	659	659	658	658	652	643	636	634	627	628	643	653	659	665	695	679	681	679	673	663	658	660		
7	661	656	659	661	660	659	655	650	644	638	633	628	631	639	649	672	685	674	680	681	683	674	670	657		
8	663	658	659	659	655	649	643	633	631	637	646	650	654	657	667	672	693	695	684	683	673	662	674			
9	665	669	663	678	673	667	661	652	643	633	630	639	636	648	661	665	667	695	707	673	673	665	665	660		
10 *	664	663	654	659	661	660	651	642	641	638	637	639	635	639	644	652	659	678	685	689	677	666	662	659		
11	661	663	663	665	669	669	661	649	641	630	624	633	632	649	653	648	660	675	695	690	681	672	671	673		
12 *	663	658	660	664	670	663	656	649	636	629	632	643	645	646	642	654	677	681	673	675	678	679	673	673		
13 *	678	672	649	657	662	670	665	659	645	635	629	635	639	649	659	669	674	672	677	670	674	666				
14 *	669	665	664	667	665	663	664	663	655	648	636	645	645	653	656	652	661	673	675	679	677	676	681			
15	670	660	665	663	668	662	653	645	636	630	638	639	646	657	665	679	683	681	693	683	693	678	656	653		
16	662	666	670	670	671	663	653	647	647	633	611	595	630	635	663	659	675	693	688	683	686	689	683	679		
17	677	679	676	679	685	679	679	665	638	620	645	659	657	663	649	650	670	674	698	675	674	673	672	670		
18	671	666	664	666	675	664	669	656	635	633	637	632	639	643	652	657	670	667	671	667	674	675	669	661		
19	659	663	664	668	665	660	653	634	631	614	628	635	638	644	656	662	672	672	685	683	688	674	671	671		
20	673	673	674	674	665	668	655	644	642	632	625	622	631	646	661	667	665	673	678	677	679	677	675	676		
21	669	667	663	669	675	672	661	648	636	639	637	644	651	646	654	669	681	677	682	675	674	674	674			
22	679	676	673	674	681	682	656	636	599	630	643	638	635	630	632	629	664	657	679	693	684	682	693	676		
23	679	679	667	666	673	659	652	644	616	614	615	633	645	640	652	664	677	675	668	666	668	669	663	663		
24 *	668	662	660	666	667	661	656	653	640	635	630	637	634	637	649	656	672	673	678	672	675	677	675	670		
25	668	670	668	671	678	676	672	661	656	650	650	638	631	642	650	665	663	677	681	671	668	672	684	673		
31 **	664	681	684	672	678	656	623	617	621	620	624	634	632	657	642	682	682	651	632	624	619	636	642	680		
Mean	666	664	662	663	664	659	653	646	637	630	630	634	638	646	652	661	669	674	677	674	674	671	669	671		
Mean *	668	664	657	663	665	663	658	653	645	638	635	638	640	647	651	660	669	676	678	677	677	673	672	670		
Mean **	660	661	667	658	662	644	635	636	633	621	617	624	628	639	641	662	668	670	662	662	661	660	660	670		
August																										
1 **	643	647	657	647	642	642	635	627	621	620	627	637	647	657	665	674	677	692	656	691	695	673	713	659		
2	636	638	650	685	670	652	631	616	613	616	621	626	632	639	640	641	650	650	676	663	665	663	672	657		
3 *	656	657	650	655	658	657	652	641	624	621	614	623	640	642	648	657	659	671	671	672	670	671	667	669		
4	668	662	666	674	662	656	653	644	638	636	639	647	649	650	665	653	654	666	686	662	662	670	664	652		
5	659	675	676	666	660	653	648	642	633	633	634	640	646	648	651	653	658	683	671	674	681	671	664	662		
6	669	668	666	666	668	666	659	644	636	634	638	644	651	664	664	669	663	666	676	679	673	676	658	661		
7	663	664	665	671	676	665	656	652	648	635	632	629	640	640	640	656	669	682	675	672	675	679	671	660		
8 *	660	669	665	663	661	662	653	646	638	630	632	637	646	646	647	661	672	677	682	677	674	670	657	663		
9	669	662	658	661	668	662	648	641	629	625	617	603	622	625	640	658	661	670	679	674	674	670	665	665		
10 *	663	657	660	662	666	670	656	652	649	640	636	631	643	631	650	658	668	677	677	684	677	677	681	666		
11	663	671	673	671	679	680	671	665	661	660	642	640	649	631	633	655	664	672	676	672	680	682	673	672		
12	676	671	666	666	671	664	657	642	626																	

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
September																										
1 *	650	653	658	658	656	648	637	624	617	618	631	642	656	666	667	668	664	660	661	666	668	676	674	661	661	
2 *	658	656	655	658	656	651	642	632	622	615	619	630	650	662	667	663	670	669	668	672	676	671	671	671	671	
3 *	670	672	660	661	659	655	647	636	633	631	633	630	651	662	662	660	662	668	666	671	676	672	674	679	679	
4 *	662	666	668	668	668	669	656	645	631	622	626	640	657	672	672	669	674	663	672	673	670	672	670	666	666	
5	662	665	672	669	666	665	655	640	625	622	632	636	654	664	668	672	673	677	670	665	681	686	666	666	666	
6	682	666	667	672	672	669	666	650	630	635	629	650	662	662	661	663	664	668	683	673	651	666	666	652	652	
7	651	666	655	658	663	661	656	646	632	639	639	642	647	661	656	661	664	667	663	653	664	666	670	668	668	
8	666	664	666	668	666	670	664	656	633	620	622	632	647	665	661	678	666	666	663	670	670	671	672	672	672	
9	665	665	660	670	662	664	653	648	639	620	615	629	651	641	638	633	651	660	652	651	666	667	664	666	666	
10	653	650	653	670	681	670	666	625	619	622	608	622	620	626	634	624	633	626	636	650	662	661	656	658	658	
11	656	671	658	650	661	656	654	650	634	650	650	645	628	632	647	632	633	646	645	629	617	659	655	627	627	
12	628	626	627	635	639	647	633	622	610	605	605	610	631	631	622	607	633	645	656	651	663	655	646	645	645	
13	631	657	645	649	647	664	656	635	635	636	634	634	634	642	635	604	621	626	627	638	646	635	622	630	630	
14	651	670	641	665	666	657	641	620	606	608	616	620	643	636	652	645	650	646	643	641	649	662	659	659	659	
15	670	680	657	655	656	640	656	635	601	618	620	610	606	620	632	634	624	640	650	648	652	643	646	655	655	
16 **	656	668	669	690	651	631	640	642	626	526	523	556	593	592	609	598	622	613	626	638	655	656	638	665	665	
17	657	644	624	628	634	626	626	606	596	588	586	596	616	633	633	653	623	636	649	656	658	667	689	635	635	
18	637	654	677	673	663	657	664	656	649	628	626	637	653	655	648	645	655	647	664	636	635	646	653	653	653	
19	656	654	654	657	656	656	656	652	640	645	636	630	641	650	674	684	687	626	607	601	605	607	609	612	612	
20 **	619	610	611	639	626	616	630	587	551	516	580	602	569	610	599	641	638	636	645	615	644	642	635	635	635	
21 **	627	618	627	611	615	629	620	617	566	516	544	561	591	592	614	632	622	636	622	673	670	683	678	665	665	
22 **	621	645	656	639	618	630	623	612	597	598	611	569	569	589	625	639	641	627	681	629	631	639	645	645	645	
23	648	631	639	659	657	634	624	631	608	609	610	606	615	617	609	634	640	644	650	649	670	683	646	669	669	
24	674	637	634	647	637	640	622	634	625	630	602	618	617	626	640	632	630	628	638	643	675	655	644	643	643	
25 **	656	652	654	654	651	648	668	655	644	633	605	577	586	597	639	644	663	666	607	565	502	557	519	523	523	
26	505	519	509	544	588	578	585	595	593	594	595	612	619	622	625	625	631	624	632	639	639	631	630	625	625	
27	666	641	645	642	645	654	667	665	641	623	645	599	620	629	626	642	656	642	652	590	612	617	604	604	604	
28	640	643	647	642	640	643	644	640	636	632	630	627	630	632	636	642	650	652	653	656	647	646	646	646	646	
29	650	651	650	647	652	655	655	650	650	649	644	640	646	650	645	620	640	633	632	630	664	650	648	641	641	
30 *	642	652	640	650	643	642	643	632	632	626	624	624	626	628	638	640	644	649	655	656	658	663	665	665	665	
Mean	647	648	646	654	650	647	645	635	621	612	614	617	629	634	642	642	647	645	649	647	649	654	650	648	648	
Mean *	656	660	656	659	656	653	645	634	627	622	627	633	648	658	661	661	662	665	667	669	672	671	668			
Mean **	636	639	643	647	632	631	636	623	597	558	567	569	588	588	619	622	638	627	634	630	615	634	623	627		
October																										
1	666	659	654	656	657	658	659	656	648	640	636	639	647	654	657	658	666	656	658	653	657	660	658	655	655	
2	654	657	666	651	653	658	643	646	638	634	637	641	646	653	656	654	655	656	657	659	666	651	655			
3	656	658	656	654	656	656	655	646	636	628	626	635	635	650	654	655	655	657	659	665	659	657				
4 *	657	657	656	657	659	661	658	650	637	626	627	636	648	657	664	664	662	666	667	664	664	661	661	661	661	
5	658	663	658	659	661	664	659	655	648	643	644	644	653	662	666	666	666	664	663	662	664	664	660	660	660	
6 *	664	666	656	660	661	662	660	653	646	646	636	638	650	660	660	664	666	666	674	673	672	672	672	670	670	
7	670	669	673	680	685	686	687	680	670	646	642	635	643	645	644	635	620	635	622	590	612	617	604			
8 **	635	647	667	667	644	632	643	611	577	601	604	636	616	603	612	616	622	632	647	648	6					

TABLE II. - HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC INTENSITY

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
November																										
1 *	652	652	654	654	655	658	659	658	648	634	629	626	630	636	642	650	656	661	659	658	655	646	642	657		
2	651	656	656	666	680	674	672	677	667	651	641	628	636	631	624	632	635	636	636	632	642	650	643	632		
3 **	641	642	642	684	670	665	660	664	651	640	651	651	642	610	617	632	643	636	649	642	652	666	616	608		
4	604	611	652	650	648	650	644	651	648	644	646	643	640	632	626	611	631	638	648	646	646	636	662	640		
5	641	640	647	639	647	658	665	651	649	648	645	622	637	644	645	646	650	650	640	637	647	650	657	680		
6	647	645	651	653	654	664	656	651	632	616	619	622	627	629	627	623	620	614	610	665	636	642	655	655		
7	651	631	670	644	649	646	647	649	650	635	625	627	617	630	633	626	616	626	641	648	646	655	653	656		
8	652	655	657	648	652	659	661	663	660	658	655	656	655	657	657	657	660	662	661	658	654	655	656	655		
9	653	650	651	652	655	668	674	663	663	672	672	651	657	664	649	661	635	657	665	663	664	659	665	661		
10 *	655	653	654	655	659	661	662	669	669	670	668	664	659	655	652	659	661	664	665	662	664	663	663	661		
11	659	660	661	661	661	660	660	659	652	648	645	647	650	648	643	651	655	659	660	661	654	645	654	653		
12	680	665	651	655	661	664	660	657	631	634	639	624	615	615	610	592	613	645	655	657	659	656	645	655		
13 **	657	650	657	663	665	659	665	660	657	605	623	645	639	615	613	598	595	575	579	580	605	589	595	649		
14 **	620	633	632	635	651	633	651	634	621	631	627	629	619	605	620	631	636	669	647	617	619	622	622	634		
15 **	659	635	628	624	640	651	654	645	646	639	610	614	624	624	618	644	629	650	646	638	648	658	650	659		
16	664	649	646	645	656	664	659	660	659	652	640	632	629	634	638	645	660	659	651	654	650	654	650	650		
17	648	650	652	654	661	666	675	670	664	664	658	656	660	664	664	665	670	660	653	636	650	609	618	630		
18 *	634	630	638	645	649	650	654	652	650	644	639	638	642	648	648	650	652	656	656	652	647	649	650	652		
19 *	654	655	657	660	663	663	665	670	663	660	655	656	654	656	655	660	653	659	662	664	668	664	660	667		
20	646	650	659	665	667	665	665	667	667	664	658	660	664	664	665	655	650	654	660	656	659	646	665	653		
21	649	646	645	650	660	667	665	667	666	665	665	665	662	664	665	669	671	671	672	662	656	659	655	648		
22	649	655	659	659	664	662	664	665	671	671	673	665	665	662	664	664	668	670	639	651	657	665	663	646		
23	648	651	647	654	655	655	656	659	660	661	653	654	659	660	651	638	647	657	661	654	642	635	645	652		
24	654	652	646	649	653	659	661	661	657	652	651	653	656	649	624	635	649	651	655	667	661	657	659	659		
25	652	649	649	650	652	656	655	659	659	659	646	646	653	654	648	625	651	659	651	655	651	691	662	656		
26	656	651	650	651	656	658	660	659	660	660	658	660	647	627	635	652	659	660	651	645	647	649	660	659		
27 *	659	655	654	653	658	665	666	667	665	658	651	655	658	661	661	659	662	667	668	667	664	655	668	660		
28	655	655	658	660	660	663	666	667	665	667	672	673	666	658	635	652	640	648	639	645	652	690	654			
29 **	655	661	660	653	660	659	655	661	667	641	655	655	625	629	621	637	632	653	659	654	648	646	657	657		
30	662	648	653	655	661	665	664	657	660	660	652	651	653	641	624	645	641	631	639	645	643	649	652	654		
Mean	650	648	651	653	657	660	661	660	656	650	647	646	645	642	640	641	645	649	649	649	649	649	651	652		
Mean *	651	649	651	653	657	659	661	663	659	653	648	648	649	651	652	656	657	661	662	661	660	655	657	659		
Mean **	646	644	644	652	657	653	657	653	648	631	633	639	630	617	618	628	627	637	636	626	634	636	628	641		
December																										
1	659	659	660	659	665	668	666	668	669	659	643	634	639	649	649	643	635	648	645	647	644	652	661	654		
2	659	655	660	662	669	649	669	670	670	659	649	642	638	635	637	631	630	622	621	628	635	630	640			
3	645	670	669	660	660	665	672	674	669	652	651	649	645	649	645	645	645	646	645	647	636	637	649	655		
4	649	653	656	662	667	667	679	676	675	668	661	649	659	648	620	635	651	645	656	642	637	679	652	647		
5	649	641	665	655	661	660	662	662	659	655	647	644	645	645	644	657	660	657	660	666	667	665	675	657		
6 *	658	656	660	660	662	665	665	665	663	663	661	662	663	667	669	666	671	673	675	665	651	659	660	661		
7	659	659	665	665	667	674	677	678	675	671	658	650	659	671	673	667	654	640	642	651	659	664	664	660		
8 **	654	681	661	654	668	671	675	662	658	661	644	604	640	644	645	591	627	635	628	601	648	631	638	669		
9 **	640	641	654	665	642	656	661	659	649	6																

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
January																										
43000 γ + Tabular Quantities (in γ)																										
1	299	303	303	299	298	298	294	292	289	291	293	291	291	295	297	298	298	301	304	303	303	305	307	305	305	
2 **	302	302	299	296	296	296	288	289	289	295	296	294	293	291	295	297	302	304	306	309	304	301	301	302	302	
3	299	299	297	295	289	279	285	289	292	296	297	294	295	296	296	296	299	299	300	299	299	299	299	297	297	
4 *	295	297	297	292	292	294	295	297	297	297	295	289	286	292	295	295	296	296	296	296	301	299	297	297	297	
5	297	295	294	292	291	292	289	291	292	295	294	290	293	294	294	289	295	294	295	298	302	299	292	294	294	
6 *	293	290	289	289	292	295	296	297	297	297	300	295	291	295	298	295	295	298	298	296	298	298	296	296	297	
7 *	296	294	295	294	292	292	291	292	295	297	299	295	290	292	296	295	297	298	298	297	297	296	296	296	296	
8	292	293	296	296	294	296	292	293	292	292	287	284	286	290	294	295	300	298	297	296	296	293	293	293	290	
9 *	292	290	290	291	292	292	290	290	289	289	292	290	286	287	290	293	293	294	294	294	293	293	293	293	293	
10	294	293	293	293	294	294	293	293	292	290	291	290	284	285	289	290	292	301	317	316	313	314	314	314	310	
11	307	303	300	300	302	300	296	296	295	294	291	289	292	297	297	298	296	300	305	313	313	308	304			
12	300	299	294	296	299	300	295	294	293	292	294	295	296	299	302	304	309	305	305	303	299	298	298			
13	298	295	289	285	285	292	296	296	298	296	296	291	290	289	292	296	296	297	304	308	306	304	302			
14	300	294	294	296	296	297	297	296	297	296	295	290	290	296	298	298	303	305	310	311	311	309	303	305		
15	303	297	297	291	293	296	295	296	294	292	293	290	288	290	298	297	303	310	310	310	310	310	310	310	303	
16	297	296	297	297	298	300	297	297	297	297	299	298	300	303	303	310	310	310	312	308	303	294	295			
17	296	292	287	289	292	292	290	293	293	293	298	302	302	303	303	300	297	297	300	298	300	300	298	298		
18 *	297	294	293	293	293	295	295	294	293	293	291	293	294	295	296	298	301	298	297	297	297	299	298	293		
19	292	293	283	287	290	292	293	293	292	288	289	288	289	290	290	294	294	293	292	293	296	305	310	310		
20	298	289	290	292	294	296	295	296	295	294	294	294	294	294	296	297	295	295	295	295	295	296	295	296		
21 **	297	294	293	293	291	290	289	287	289	286	287	287	292	293	300	313	329	328	329	320	318	310	307	300		
22 **	298	287	275	283	287	292	288	286	287	288	292	296	301	317	327	333	328	316	310	310	306	299	293			
23 **	287	275	280	288	293	297	297	300	299	295	296	299	303	307	313	317	310	312	303	303	300	292	293			
24	293	293	295	295	295	295	293	295	293	292	293	294	294	300	303	306	303	303	303	302	298	297	296			
25	293	295	296	296	296	297	296	296	294	293	293	294	294	294	298	304	304	302	300	300	299	297	297			
26	296	294	295	294	293	293	293	292	287	285	287	290	288	290	291	295	300	300	314	330	340	327	315	310		
27	303	298	298	296	292	292	290	294	293	294	295	295	290	287	290	299	300	301	305	305	306	307	304			
28	301	295	292	290	291	295	295	293	292	291	292	290	287	290	298	298	300	301	310	312	310	305	304			
29	299	298	297	297	296	296	295	296	296	294	296	294	294	294	297	299	298	300	302	304	306	308	304	297		
30	296	295	296	296	295	294	294	293	293	290	292	294	292	290	289	290	294	298	303	312	310	313	320	320	315	
31 **	306	302	300	290	268	260	255	262	262	273	277	285	294	303	310	316	320	330	334	339	335	322	311	314		
Mean	297	295	293	293	292	292	293	292	292	293	292	292	292	295	298	300	303	302	305	306	306	304	302	300		
Mean *	295	293	293	292	292	294	293	294	294	295	295	292	289	292	294	295	296	296	297	296	297	297	296	295		
Mean **	298	292	289	290	287	287	283	285	285	287	290	292	295	301	308	314	318	316	314	314	308	302	302	300		
February																										
1	310	303	293	283	290	296	295	298	298	300	299	300	297	302	306	305	305	305	307	308	313	315	313	312		
2 *	308	305	304	303	302	301	298	299	300	300	302	301	300	300	302	309	303	303	304	303	303	302	300			
3 *	298	300	299	298	298	298	296	298	298	298	299	295	292	297	298	297	296	298	298	299	300	299	299	299	299	
4	301	298	297	297	296	296	296	296	297	293	297	297	299	300	306	314	314	315	309	306	306	304	303	300		
5	300	300	300	299	297	298	295	295	294	295	296	290	287	295	299	296	295	301	314	320	320	316	311	311		
6	296	281	271	283	278	280	292	296	294	300	305	307	307	310	313	310	310	310	310	306	304	304	300	300		
7	298	301	303	303	300	301	301	302	300	299	293															

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 15

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

* International Quiet Day. ** International Disturbed Day.

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

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h		
May																											
1 **	297	290	288	289	293	292	285	272	272	268	275	279	280	289	299	310	323	343	358	348	343	305	263	238			
2 **	251	264	298	314	317	315	314	310	304	304	310	305	304	321	334	329	334	355	346	335	316	296	293	299			
3	286	291	298	304	305	307	305	300	300	296	291	290	297	310	322	325	324	324	334	321	314	311	310	304			
4	280	275	277	285	296	298	304	296	292	288	286	286	294	305	307	314	321	328	326	326	314	314	306	306			
5	306	306	306	308	307	310	305	302	295	287	284	286	294	299	305	307	310	309	308	307	305	305	307				
6	294	295	300	302	304	301	296	298	295	292	284	280	280	290	300	306	310	314	314	313	306	304	300	304			
7	304	301	301	301	303	302	303	299	294	285	276	271	274	282	296	304	309	310	311	314	311	311	304	301			
8 *	299	300	302	304	307	306	305	304	301	294	286	280	282	289	294	300	306	310	314	311	310	306	306	304			
9 **	302	302	302	302	301	301	300	299	297	295	285	275	275	285	293	306	317	324	326	330	330	319	315	276			
10 **	290	299	301	304	305	299	293	285	286	288	279	280	284	296	312	334	332	328	321	321	322	313	308	301	301		
11	301	299	294	300	306	309	309	306	305	299	295	283	283	296	306	314	318	323	322	319	313	309	306	302			
12	289	284	286	292	298	303	305	303	297	292	288	279	285	295	304	319	330	333	325	317	310	304	301	305	305		
13 *	302	301	301	302	304	305	305	303	299	297	291	288	289	295	300	307	309	311	311	313	309	306	304	303			
14	299	298	299	295	297	297	299	301	301	299	295	289	290	292	300	310	317	325	326	325	321	312	302	302			
15	295	298	289	284	287	292	294	293	295	295	289	279	273	279	295	303	304	308	312	316	316	311	307	301			
16	294	285	283	270	274	284	291	297	296	290	283	279	275	281	293	308	315	315	317	317	313	309	303	296			
17	293	294	278	279	279	283	280	280	279	280	275	275	285	293	301	313	320	333	330	326	324	316	310	304	304		
18	294	291	289	284	295	299	300	295	293	289	279	260	261	279	294	303	307	310	309	306	307	306	305	304			
19	299	301	299	298	301	300	305	302	298	294	282	279	281	289	295	303	308	308	309	312	309	305	302	303			
20 *	301	302	301	296	297	299	297	299	291	285	275	268	264	279	291	301	306	311	311	311	310	305	301	301			
21 *	301	303	303	302	306	304	301	299	294	286	282	274	277	286	293	299	307	314	312	313	308	304	301	299			
22 *	296	299	296	296	300	298	293	291	286	281	274	264	254	260	274	288	301	311	310	306	302	300	300	299			
23	299	295	292	296	303	300	296	290	283	274	269	262	263	277	289	295	302	308	313	323	326	320	308	300			
24	297	279	288	299	305	305	308	310	307	303	297	286	285	294	303	312	314	321	318	318	313	309	302	300			
25	299	300	299	301	308	308	307	303	295	288	283	269	266	273	284	293	300	306	307	306	303	303	299				
26 **	290	290	295	299	302	303	304	303	300	299	290	278	276	284	286	298	314	345	350	355	349	331	310	304	304		
27	270	273	272	271	270	290	304	312	306	294	284	285	284	290	294	303	309	314	314	314	310	310	306	307			
28	305	305	302	300	302	298	297	296	294	285	276	273	273	283	289	296	302	307	305	305	303	303	301				
29	301	300	300	302	304	302	299	298	293	290	284	274	272	284	294	304	311	313	310	310	307	307	304	300			
30	299	299	300	303	307	306	305	303	293	297	290	285	282	284	289	298	305	307	311	312	312	311	308	304			
31	301	302	301	302	300	297	298	297	293	287	280	280	281	286	294	300	305	306	305	304	302	301	301	300			
Mean	295	294	295	296	300	300	300	298	295	290	284	279	279	288	298	306	312	318	319	318	314	309	303	299			
Mean *	300	301	301	300	303	302	300	299	294	289	282	275	273	282	290	299	306	311	312	311	308	304	302	301			
Mean **	286	289	297	302	304	302	299	294	292	291	288	283	284	295	305	315	324	339	340	338	332	313	298	284			
June																											
1	300	299	296	296	298	297	295	291	288	282	281	282	287	296	301	306	304	308	308	308	309	311	306	304			
2	300	300	300	298	294	288	289	287	286	284	284	285	286	292	302	306	309	316	320	316	313	306	303	294			
3	286	284	291	296	294	294	295	294	290	289	285	283	283	290	302	305	306	307	307	306	305	304	302				
4	300	300	300	302	304	300	299	295	294	290	285	284	288	292	302	310	315	316	316	311	305	303	295	295			
5	295	297	294	297	304	302	300	295	293	290	283	279	276	287	301	313	316	316	310	308	306	304	302	302			
6 **	297	293	297	299	302	304	301	29																			

MAGNETIC OBSERVATIONS. ABINGER. 1951.

D 17

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

* International Quiet Day. ** International Disturbed Day.

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

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h
September	43000 γ + Tabular Quantities (in γ)																								
1 *	300	303	303	305	308	309	311	306	302	295	294	294	295	299	304	305	308	306	305	307	305	305	305	300	301
2 *	301	302	303	304	305	308	309	309	303	301	298	296	294	294	296	300	309	307	306	305	306	304	304	304	302
3 *	302	300	302	305	307	306	305	304	298	290	292	292	292	293	300	309	312	310	304	305	302	304	303	301	301
4 *	300	301	302	303	302	303	301	300	296	295	288	291	295	300	304	307	309	308	307	307	309	308	305	305	304
5	304	305	305	304	307	306	305	305	302	298	292	288	297	305	311	315	315	315	313	311	311	307	310	306	306
6	297	298	302	305	307	307	308	305	301	295	290	291	290	295	303	307	307	307	309	315	317	316	312	308	308
7	304	300	301	305	308	309	311	310	307	301	290	284	285	290	294	302	307	313	316	321	317	311	308	308	305
8	304	304	304	305	307	305	302	301	300	298	295	288	288	295	304	311	316	315	316	321	323	318	313	307	301
9	301	298	297	295	296	299	300	300	298	295	288	288	295	304	311	316	315	316	321	323	318	313	307	301	301
10	292	294	295	286	287	285	288	286	293	296	299	308	317	324	341	346	347	341	331	324	318	315	315	315	315
11	311	305	296	305	309	311	315	311	307	303	300	297	298	302	309	320	325	335	353	359	348	324	283	288	288
12	295	289	285	300	309	301	303	303	310	309	310	306	303	309	318	330	334	333	324	323	323	318	315	299	299
13	266	294	302	309	302	286	284	290	297	300	300	300	302	301	312	333	346	343	355	341	331	324	329	298	298
14	302	290	289	290	282	284	293	301	307	306	303	297	304	307	313	321	321	327	327	330	325	321	315	310	310
15	302	291	288	296	301	305	309	305	305	304	304	304	308	317	329	349	346	340	336	337	328	322	322	318	318
16 **	308	288	291	291	284	288	285	295	297	295	311	320	324	338	374	391	405	377	352	338	329	300	299	285	285
17	270	288	285	293	301	303	311	312	314	313	313	319	320	326	334	357	353	349	334	326	320	318	300	298	298
18	304	303	288	280	286	292	298	304	310	309	305	301	298	302	312	325	329	332	339	329	326	323	314	310	310
19	307	306	309	310	310	311	311	310	303	298	292	289	288	288	298	337	410	420	422	372	360	348	335	331	311
20 **	315	302	299	293	285	293	303	302	301	310	320	327	331	342	363	363	386	369	363	335	331	317	298	289	289
21 **	246	263	290	295	292	282	292	307	303	305	317	322	334	334	349	372	373	361	351	339	321	306	286	277	277
22 **	287	268	271	281	278	275	285	300	305	308	305	302	321	327	343	357	361	344	345	328	321	315	312	281	281
23	295	288	281	259	275	275	296	305	306	315	319	319	318	320	333	344	338	331	326	326	329	311	303	299	299
24	282	277	292	292	292	291	300	311	312	314	313	321	322	338	341	337	342	340	331	331	326	314	315	316	316
25 **	310	302	302	308	308	306	311	311	312	314	321	322	333	349	383	474	475	435	403	339	351	359	259	252	252
26	183	194	171	216	232	292	320	324	329	332	332	328	325	325	329	336	339	336	335	334	331	332	331	332	332
27	321	305	304	295	291	305	311	312	308	318	317	311	314	316	321	327	330	328	326	327	326	326	326	321	321
28	312	296	305	311	317	317	318	320	321	314	311	302	301	304	308	312	315	315	317	318	319	318	321	317	317
29	315	310	311	314	315	315	315	315	313	312	305	300	300	302	311	332	361	356	338	335	327	312	311	314	314
30 *	309	307	309	311	308	309	307	313	315	311	306	301	301	311	317	323	321	321	320	320	320	320	319	318	317
Mean	295	292	293	296	297	300	304	306	306	305	304	303	306	312	322	335	341	337	334	327	324	317	308	303	303
Mean *	302	303	304	306	306	307	307	307	304	300	295	295	295	300	305	311	311	310	308	309	308	308	306	305	305
Mean **	293	285	291	294	289	289	295	303	304	306	315	319	329	338	362	391	400	377	363	336	331	319	291	277	277
October	43000 γ + Tabular Quantities (in γ)																								
1	317	317	318	317	318	313	313	313	311	311	303	297	297	301	305	311	317	317	319	320	320	320	317	316	318
2	318	314	311	309	311	311	307	307	311	310	307	306	306	307	308	310	316	319	320	321	320	319	316	315	317
3	314	314	313	316	318	318	316	317	313	311	304	302	302	302	305	311	314	317	318	318	315	313	312	311	311
4 *	311	311	312	313	314	314	316	316	313	308	302	301	301	303	310	317	320	319	320	320	315	314	313	312	311
5	311	309	310	312	314	314	315	315	314	316	316	313	307	301	299	300	305	313	315	316	317	318	318	315	314
6 *	311	307	308	312	314	314	315	316	313	309	300	294	290	294	301	307	311	311	311	312	311	311	311	308	308
7	306	307	306	304	301	300	298	303	304	305	296	291	292	295	309	323	347	347	359	370	362	337	301	311	311
8 **	307	298	289	271	281	296	308	311	318	321	327	330	328	338	355	347	362	361	350	341	332	330	325	303	

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 19

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

U.T.	0 ^h	1 ^h	2 ^h	3 ^h	4 ^h	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	12 ^h	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h	21 ^h	22 ^h	23 ^h	24 ^h	
November																										
1 *	319	322	323	322	320	320	318	319	316	313	311	310	311	313	319	321	322	321	319	319	320	320	323	323	323	
2	322	319	316	313	307	308	306	305	304	303	300	300	309	313	323	329	333	332	331	330	332	325	323	319	319	
3 **	313	309	303	295	295	299	303	305	303	303	304	303	307	316	325	329	329	330	329	327	329	308	303	303	303	
4	299	301	295	289	295	295	298	295	304	308	308	308	313	321	329	343	342	336	334	329	327	327	323	311	311	
5	310	310	311	309	311	316	312	315	319	319	310	311	314	319	319	324	324	326	331	328	324	322	322	313	313	
6	311	311	314	314	316	316	315	317	319	318	319	319	324	325	333	338	346	357	361	353	328	333	330	325	325	
7	313	309	296	295	303	310	314	319	315	314	318	318	323	327	328	337	340	338	338	335	334	321	328	326	326	
8	321	317	305	311	314	316	313	315	317	313	308	310	314	317	321	322	323	321	321	325	329	330	327	325	325	
9	321	318	317	316	313	311	307	305	310	308	309	307	308	309	314	324	326	331	328	325	324	328	324	324	324	
10 *	321	318	318	314	315	314	312	312	313	312	310	313	312	311	314	315	316	317	316	317	315	316	314	314	314	
11	314	313	313	313	313	312	312	314	316	314	314	312	314	316	318	318	318	314	315	315	315	321	319	314	314	
12	311	293	300	307	308	308	308	308	308	312	314	317	324	329	339	348	352	342	332	328	324	322	323	318	318	
13 **	316	312	312	312	312	312	312	311	310	312	314	314	312	318	328	345	368	384	384	372	352	336	324	313	313	
14 **	298	274	300	313	314	317	318	318	320	321	318	319	322	329	338	338	338	329	333	331	304	309	301	301	301	
15 **	305	301	308	307	313	316	313	314	312	309	308	312	317	321	330	335	333	334	327	329	327	322	321	312	312	
16	306	308	311	312	312	311	310	312	313	312	311	310	315	322	326	327	328	327	323	320	322	320	319	318	318	
17	318	316	315	314	315	317	313	312	308	306	304	303	304	305	308	312	314	315	315	322	330	317	318	320	320	
18 *	318	317	317	316	317	316	316	316	316	311	308	309	311	312	315	317	319	319	319	320	319	318	314	314	314	
19 *	314	315	315	314	311	313	313	313	311	311	308	311	314	314	317	320	321	322	320	319	318	315	316	317	317	
20	316	314	310	309	311	314	314	312	309	310	309	310	313	315	318	319	323	324	323	328	334	329	329	329	317	
21	316	315	315	314	314	315	313	311	309	308	307	308	307	308	312	312	314	314	313	314	317	318	318	318	318	
22	318	313	311	309	308	309	310	310	306	303	302	302	302	303	303	307	308	313	315	323	330	327	325	322	322	
23	324	319	318	315	314	316	316	316	315	312	312	312	312	312	314	316	323	322	325	326	330	328	324	322	322	
24	319	312	312	314	315	318	314	317	317	314	314	315	317	317	320	329	330	328	326	325	322	318	317	317	317	
25	315	312	311	312	313	313	313	312	310	308	308	312	314	314	318	320	325	323	323	323	323	323	323	323	309	
26	310	312	313	314	313	313	313	311	311	309	312	313	316	323	323	321	321	319	318	324	323	323	322	322	322	
27 *	318	315	314	313	314	314	313	311	309	309	311	309	308	308	313	314	316	317	313	313	314	315	316	317	316	
28	315	313	311	307	309	309	309	310	308	307	306	307	307	311	318	320	323	323	321	328	325	315	303	296	296	
29 **	303	303	296	300	304	308	308	310	308	304	308	311	318	329	330	330	337	329	322	320	319	321	316	306	306	
30	303	305	309	309	311	312	313	311	309	307	302	302	304	309	320	324	327	328	329	328	323	319	317	316	316	
Mean	314	311	310	310	311	312	312	312	312	310	310	310	313	316	321	325	328	328	327	327	326	321	319	316	316	
Mean *	318	317	317	316	315	315	314	314	313	311	310	310	311	313	316	318	319	318	318	317	318	317	318	317	317	
Mean **	307	300	304	305	308	310	311	312	311	310	310	312	315	323	330	335	341	343	338	336	332	318	315	307	307	
December																										
1	314	312	309	308	311	313	312	312	309	306	303	304	308	313	319	322	328	328	326	324	323	323	318	312	308	
2	306	307	308	308	308	304	304	302	305	305	307	309	313	320	328	331	335	338	343	342	333	330	327	318	318	
3	316	306	300	303	308	310	306	310	312	310	309	309	310	314	317	322	325	324	330	332	331	330	327	314	314	
4	310	308	304	307	307	308	307	308	305	308	308	311	312	314	322	327	330	327	335	333	337	332	318	318	318	
5	318	317	315	311	312	314	313	313	312	311	308	308	309	314	318	316	319	322	322	323	323	323	318	315	308	
6 *	311	309	310	309	311	312	311	310	308	305	304	305	305	306	305	308	310	312	311	312	314	318	315	312	312	
7	310	311	309	308	308	308	308	308	308	307	308	308	308	308	314	319	328	326	323	319	314	311	311	311	311	
8 **	308	297	280	293	300	302	305	305	307	304	305	314	312	322												

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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		
January	9°+ ,	U.T. h m	9°+ ,	9°+ ,	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	16.8	16 2	21.4	10.8	0 51	10.6	649	9 6	670	624	2 2	46	298	22 38	309	286	8 11	23
2 **	16.4	13 58	22.9	4.6	19 50	18.3	647	20 3	703	620	15 16	83	298	20 1	316	284	8 17	32
3	16.3	4 52	24.6	8.8	0 2	15.8	648	5 11	681	634	15 20	47	295	19 10	304	274	5 16	30
4 *	16.5	13 1	19.5	13.5	21 44	6.0	649	18 37	664	635	0 41	29	295	20 27	303	282	12 4	21
5	16.5	12 59	20.7	6.9	21 2	13.8	653	21 13	678	630	20 18	48	294	20 26	305	284	7 3	21
6 *	16.4	12 6	20.1	10.9	20 37	9.2	648	13 10	661	636	1 39	25	295	10 43	302	284	12 31	18
7 *	16.2	11 50	19.3	13.9	22 4	5.4	649	14 4	662	633	10 57	29	295	10 20	302	288	12 33	14
8	17.2	12 42	22.5	14.4	20 43	8.1	654	7 8	672	630	15 0	42	293	16 46	305	281	10 59	24
9 *	16.8	13 41	19.9	14.6	23 58	5.3	652	5 58	671	633	11 23	38	291	19 10	298	283	12 55	15
10'	16.5	18 9	26.3	12.0	21 40	14.3	641	15 28	668	581	18 33	87	297	18 54	322	281	11 58	41
11	16.2	1 7	24.1	6.8	22 21	17.3	635	22 24	667	608	1 15	59	300	21 43	317	285	11 59	32
12	16.5	11 26	21.9	11.4	0 33	10.5	635	5 43	661	605	10 20	56	299	16 44	313	289	8 56	24
13	15.6	13 33	20.7	6.3	20 6	14.4	639	13 47	659	604	19 30	55	296	20 8	314	282	3 43	32
14	15.7	13 50	21.1	8.2	21 20	12.9	635	6 37	659	611	13 29	48	300	19 45	317	287	11 22	30
15	15.5	2 58	22.4	4.2	22 10	18.2	641	23 57	676	616	21 30	60	298	19 37	314	285	12 34	29
16	14.8	12 21	20.1	1.5	21 23	18.6	636	21 48	683	585	13 14	98	301	16 45	317	291	22 16	26
17	15.6	1 51	21.5	10.7	3 31	10.8	642	1 42	670	626	4 37	44	296	14 29	307	285	2 12	22
18 *	15.8	13 24	20.0	8.6	21 53	11.4	648	22 2	668	627	14 34	41	295	17 29	305	288	10 32	17
19	15.3	13 12	21.6	2.3	21 44	19.3	647	18 8	677	594	22 20	83	293	22 30	313	281	2 46	32
20	15.8	13 30	22.6	5.6	0 2	17.0	643	15 44	663	613	0 16	50	295	0 11	300	285	1 49	15
21 **	15.6	16 5	24.3	-3.0	21 41	27.3	640	10 52	671	588	16 26	83	301	18 35	333	284	11 15	49
22 **	14.4	7 13	28.8	-12.8	21 8	41.6	626	21 14	674	558	14 35	116	300	15 25	341	269	2 18	72
23 **	15.6	0 45	23.8	3.8	18 46	20.0	635	18 59	684	597	10 36	87	298	16 48	322	270	1 34	52
24	15.8	13 27	20.6	11.1	20 36	9.5	640	5 47	661	609	12 42	52	297	16 45	312	287	9 4	25
25	15.7	13 21	20.9	9.3	20 53	11.6	643	6 3	659	624	11 20	35	297	16 24	308	289	0 16	19
26	16.6	17 52	26.0	10.6	22 1	15.4	642	13 45	667	582	20 1	85	300	20 37	346	281	8 59	65
27	15.4	13 41	21.5	7.3	22 48	14.2	639	19 55	658	620	20 23	38	298	20 53	310	283	12 8	27
28	14.5	13 19	21.1	2.3	19 4	18.8	637	14 30	659	605	20 49	54	297	19 14	315	284	12 46	31
29	16.0	9 7	20.1	9.9	23 12	10.2	638	22 19	661	616	11 54	45	299	20 59	311	291	11 6	20
30	15.6	16 59	21.1	7.3	22 51	13.8	640	7 29	665	600	22 39	65	299	22 2	322	287	13 34	35
31 **	16.3	9 30	27.4	-0.2	3 10	27.6	620	3 25	691	564	7 36	127	299	19 48	344	248	6 52	96
Mean	15.9	-	22.2	7.1	-	15.1	642	-	670	610	-	59.8	297	-	314	283	-	31.9
Mean *	16.4	-	19.8	12.3	-	7.5	649	-	665	633	-	32.4	294	-	302	285	-	17.0
Mean **	15.6	-	25.4	-1.5	-	27.0	634	-	685	585	-	99.2	299	-	331	271	-	60.2
February	9°+ ,	U.T. h m	9°+ ,	9°+ ,	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	13.2	18 37	20.2	-1.1	1 49	21.3	623	1 20	667	593	4 20	74	302	21 11	319	278	3 25	41
2 *	15.4	18 5	18.7	12.0	21 40	6.7	638	18 30	652	620	2 11	32	302	0 6	310	292	6 56	18
3 *	15.6	12 46	20.0	13.2	21 0	6.8	644	19 28	657	631	9 31	26	298	23 50	302	287	12 17	15
4	16.5	12 5	22.6	13.8	22 8	8.8	639	8 25	659	595	17 18	64	302	18 29	318	291	9 21	27
5	15.4	14 28	23.5	4.3	22 6	19.2	642	7 57	674	597	21 12	77	300	21 25	326	282	12 3	44
6	13.5	12 12	20.3	-3.8	2 29	24.1	631	1 16	688	589	0 32	99	298	0 2	318	265	2 14	53
7	14.5	13 6	20.5	9.6	19 50	10.9	639	15 5	656	620	18 56	36	300	18 29	308	288	11 58	20
8	14.7	12 44	21.9	2.2	18 34	19.7	631	18 39	682	568	16 31	114	306	18 38	361	289	0 3	72
9	14.7	14 31	24.1	4.0	19 26	20.1	628	21 19	691	588	16 5	103	304	15 23	335	283	11 58	52
10	14.7	13 34	23.7	-2.7	22 21	26.4	635	22 32	717	615	22 3	102	298	19 52	317	287	3 17	30
11	14.8	2 2	22.3	6.0	23 58	16.3	633	23 46	709	583	16 52	126	300	20 16	324	280	24 0	44
12	14.0	15 3	23.5	-6.3	18 28	29.8	635	23 14	691	596	18 3	95	298	18 43	334	271	1 48	63
13	15.3	11 46	22.0	7.3	19 54	14.7	635	22 35	679	606	12 4	73	303	19 28	320	291	3 6	29
14	14.3	14 20	19.4	6.1	18 50	13.3	640	18 55	681	622	18 17	59	299	18 43	314	290	13 3	24
15 *	15.7	12 59	19.2	10.3	22 57	8.9	644	23 2	670	633	13 39	37	300	18 44	310	287	8 20	23
16 *	15.8	13 8	19.1	13.6	7 30	5.5	649	18 40	664	638	11 22	26	299	20 28	306	291	17 1	15
17	16.1	14 6	21.5	11.3	20 56	10.2	647	7 43	661	626	20 45	35	299	21 8	314	285	11 15	29
18	15.0	12 1	21.7	7.7	1 3	14.0	645	7 55	677	613	18 41	64	298	20 12	318	278	10 4	40
19	15.9	12 25	22.3	7.1	22 33	15.2	652	6 3	675	627	10 50	48	294	19 36	307	281	11 5	26
20 *	15.3	13 1	18.8	11.6	0 0	7.2	648	5 56	663	628	0 50	35	296	17 26	306	285	11 2	21
21	15.3	14 40	21.0	8														

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		
March	9°+	U.T. h m	9°+	U.T. h m	,	18000 Y +	U.T. h m	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	Y	
1	14.5	11 18	20.1	7.7	3 38	12.4	635	2 20	663	607	12 15	56	299	19 6	312	284	2 37	28
2 *	14.7	12 55	20.1	12.5	8 53	7.6	641	23 42	678	608	14 20	70	302	17 28	314	289	12 4	25
3	15.4	6 22	19.8	12.6	9 10	7.2	647	6 36	672	628	15 28	44	297	16 27	309	285	11 18	24
4 *	14.9	12 32	19.1	11.2	8 55	7.9	649	22 29	699	632	12 52	67	295	18 28	305	283	11 46	22
5 *	15.7	13 40	19.4	13.2	9 31	6.2	655	7 57	675	641	17 23	34	294	18 44	309	278	12 41	31
6	15.8	14 37	24.0	11.0	20 6	13.0	657	8 21	706	626	15 21	80	293	18 45	310	275	11 3	35
7 **	16.1	13 36	30.6	7.1	23 24	23.5	640	20 51	692	581	16 54	111	297	18 36	346	270	12 30	76
8	14.2	14 6	23.7	0.1	18 24	23.6	634	20 50	699	575	9 59	124	301	17 57	336	278	9 50	58
9	13.6	13 13	21.9	0.0	23 57	21.9	635	20 23	681	601	23 22	80	294	18 7	320	269	23 45	51
10 **	13.1	12 45	23.6	-1.9	0 19	25.5	636	18 50	692	590	13 19	102	292	18 46	323	268	6 48	55
11	14.0	14 32	23.9	1.1	19 55	22.8	634	19 0	704	595	15 18	109	297	16 43	341	276	10 54	65
12	15.7	13 9	23.1	5.8	19 41	17.3	640	19 47	694	586	10 0	108	297	16 44	327	271	6 12	56
13 **	12.9	14 13	26.3	-9.8	19 56	36.1	625	20 32	718	533	21 36	185	305	18 7	404	256	23 57	148
14 **	14.6	14 32	27.7	3.4	20 46	24.3	620	20 3	716	579	20 41	137	307	16 39	355	254	0 4	101
15	14.2	12 47	21.9	-2.0	2 14	23.9	635	18 33	662	590	0 48	72	302	0 3	313	278	1 54	35
16	15.1	12 41	24.2	1.9	20 49	22.3	649	15 58	680	618	10 34	62	299	20 51	312	278	12 3	34
17	14.6	13 40	23.8	5.4	17 16	18.4	641	6 52	666	590	10 20	76	302	17 34	329	289	9 32	40
18	14.9	12 15	22.5	7.5	22 16	15.0	644	23 18	665	596	9 55	69	298	16 19	309	279	11 59	30
19	15.2	13 40	20.2	11.1	8 29	9.1	647	5 41	668	622	10 40	46	296	16 45	309	284	11 6	25
20	14.5	13 42	23.5	8.9	8 44	14.6	644	10 44	662	593	12 24	69	298	16 28	317	276	12 43	41
21 *	15.7	13 39	22.3	11.1	9 28	11.2	655	22 30	712	642	11 11	70	295	16 40	308	273	12 21	35
22 **	13.6	12 26	25.0	2.2	19 3	22.8	644	23 45	692	580	17 58	112	301	17 15	384	278	10 53	106
23	14.1	13 17	24.7	2.6	20 56	22.1	629	20 31	694	597	15 56	97	298	18 26	331	274	0 7	57
24	13.6	14 7	23.3	2.2	19 13	21.1	634	19 21	695	605	19 53	90	303	16 39	333	278	12 2	55
25	13.7	13 45	24.5	5.7	1 40	18.8	640	23 24	682	579	11 8	103	296	16 38	314	278	4 4	36
26	14.3	13 29	24.7	3.7	22 25	21.0	641	22 40	678	611	11 10	67	298	19 30	322	278	12 16	44
27	14.2	13 30	22.7	7.4	2 12	15.3	644	14 53	670	610	11 17	60	296	18 27	318	276	11 15	42
28 *	14.6	13 0	21.5	9.9	8 50	11.6	648	15 4	665	619	11 20	46	301	7 30	312	289	13 21	23
29	15.9	14 41	30.6	1.5	22 47	29.1	641	6 10	688	605	13 43	83	304	18 28	356	273	12 48	83
30	14.0	14 20	22.1	6.7	2 1	15.4	649	1 43	682	623	8 53	59	296	0 2	314	272	11 1	42
31	14.7	14 4	21.9	9.5	8 34	12.4	648	7 46	680	622	13 28	58	299	18 8	322	274	13 1	48
Mean	14.6	-	23.3	5.5	-	17.9	641	-	685	603	-	82.1	298	-	326	276	-	50.0
Mean *	15.1	-	20.5	11.6	-	8.9	649	-	686	628	-	57.4	297	-	310	282	-	27.2
Mean **	14.1	-	26.6	0.2	-	26.4	633	-	702	573	-	129.4	300	-	362	265	-	97.2
April	9°+	U.T. h m	9°+	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 *	14.1	14 19	20.1	6.5	23 40	13.6	653	21 42	685	627	10 28	58	296	20 35	307	283	12 0	24
2	15.3	16 39	31.0	5.4	20 53	25.6	648	23 11	672	571	17 22	101	303	17 41	352	274	12 46	78
3 **	12.8	12 56	23.4	0.9	17 29	22.5	636	20 36	696	574	11 43	122	296	17 36	359	257	2 21	102
4 **	15.2	14 26	26.0	0.6	16 47	25.4	632	22 11	709	575	12 39	134	299	16 38	355	268	23 44	87
5	12.9	12 59	23.9	0.1	22 17	23.8	632	20 22	671	579	9 25	92	288	14 40	327	241	2 59	86
6 **	14.2	15 32	24.1	-1.1	19 5	25.2	631	18 28	696	574	12 40	122	296	18 29	341	268	24 0	73
7	13.9	12 31	25.1	3.5	2 36	21.6	633	23 53	689	596	11 40	93	295	17 26	335	261	0 17	74
8	13.2	14 46	22.6	4.4	19 15	18.2	638	22 11	704	605	8 10	99	296	18 46	336	277	12 0	59
9	14.6	12 34	22.5	6.6	19 10	15.9	638	17 13	664	583	12 11	81	302	18 30	341	278	12 4	63
10	14.3	14 4	26.2	6.7	6 20	19.5	641	2 18	676	608	10 21	68	298	21 6	324	273	2 44	51
11	14.0	13 58	22.5	7.4	22 40	15.1	645	16 41	669	616	11 30	53	293	18 37	311	272	12 3	39
12	13.2	13 30	23.6	-4.8	23 45	28.4	647	23 21	723	611	11 16	112	297	16 43	317	281	11 55	36
13 **	13.8	13 31	31.5	-3.7	0 2	35.2	637	0 5	708	551	12 32	157	295	17 44	331	260	0 24	71
14	14.4	13 39	22.6	8.4	6 2	14.2	643	21 24	676	600	11 17	76	298	19 8	317	281	12 2	36
15 *	14.3	13 21	23.4	7.7	7 23	15.7	646	16 6	674	613	10 27	61	296	17 28	321	262	12 17	59
16 *	14.0	13 21	20.9	8.5	22 57	12.4	651	22 31	682	627	11 39	55	297	6 58	309	273	12 22	36
17	13.5	14 5	23.1	7.2	7 34	15.9	650	19 3	673	621	12 20	52	292	17 30	310	273	12 22	37
18 **	14.6	16 14	36.6	-0.2	24 0	36.8	649	10 28	717	464	12 29	253	301	16 57	341	242	12 30	99
19	12.1	16 57	19.1	-0.2	0 0	19.3	642	0 4	709	616	9 50	93	296	18 48	316	272	1 17	44
20	10.8	15 40	23.7	-11.0	22 39	34.7	636	17 35	692	560	22 33	132	306	17 43	382	281	0 41	101
21	12.8	13 22	2															

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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
May	9°+ ,	U.T. h m	9°+ ,	9°+ ,	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 **	8.9	15 59	21.7	-22.6	23 57	44.3	639	18 26	715	511	23 13	204	296	18 25	367	233	24 0	134
2 **	11.9	13 58	29.3	-22.4	0 0	51.7	618	20 56	742	555	0 20	187	311	17 25	368	228	0 6	140
3	13.5	14 49	24.1	-1.0	18 22	25.1	641	18 32	738	598	8 3	140	307	18 29	343	282	0 35	61
4	12.6	12 6	22.0	0.2	1 26	21.8	640	19 46	714	590	9 35	124	301	17 37	339	272	0 45	67
5	13.6	13 4	22.2	7.2	23 36	15.0	647	23 59	690	622	10 16	68	303	17 25	313	279	11 14	34
6	13.1	14 12	23.2	4.7	6 55	18.5	646	19 24	699	618	11 52	81	299	19 25	321	276	12 8	45
7	13.6	13 22	23.5	6.6	7 37	16.9	645	18 29	671	613	10 56	58	298	19 49	318	270	11 28	48
8 *	13.7	12 43	22.2	8.1	7 47	14.1	650	18 24	678	618	10 16	60	301	18 26	318	277	11 22	41
9 **	15.3	13 22	25.3	4.4	23 20	20.9	664	22 53	855	615	9 25	240	302	20 32	336	261	23 20	75
10 **	13.4	14 53	22.9	4.4	7 45	18.5	644	19 4	690	555	14 30	135	303	15 44	351	269	7 48	82
11	13.2	13 5	23.2	4.7	8 29	18.5	642	21 15	678	592	9 52	86	305	17 35	329	275	11 52	54
12	13.6	0 23	20.6	5.9	17 42	14.7	652	17 57	727	627	9 40	100	301	17 54	347	275	12 1	72
13 *	13.7	13 34	21.0	9.8	5 34	11.2	654	23 37	683	628	11 25	55	302	18 55	318	285	11 28	33
14	12.3	14 16	19.4	4.7	7 53	14.7	656	21 42	700	624	12 17	76	304	18 10	334	286	11 17	48
15	12.0	12 31	21.6	4.3	0 17	17.3	661	15 1	693	636	13 8	57	296	19 48	320	272	13 0	48
16	11.8	13 19	21.3	3.3	2 10	18.0	647	3 4	691	592	11 2	99	294	17 7	322	268	3 28	54
17	13.9	11 55	24.4	7.1	23 6	17.3	650	17 35	705	610	9 13	95	297	17 35	339	273	10 46	66
18	12.4	13 26	22.9	3.8	5 45	19.1	650	0 38	678	619	10 37	59	294	17 43	313	253	11 55	60
19	12.0	13 16	21.7	4.9	5 56	16.8	652	21 12	678	624	14 12	54	299	19 26	313	274	11 32	39
20 *	13.2	12 31	24.0	3.4	7 10	20.6	654	21 8	677	626	8 34	51	296	19 20	317	260	12 17	57
21 *	12.9	12 43	23.7	3.1	6 48	20.6	660	18 57	683	627	9 40	56	299	17 34	318	271	11 33	47
22 *	12.8	14 23	24.0	4.3	6 45	19.7	662	19 2	687	634	13 49	53	291	17 44	317	251	12 26	66
23	12.9	12 50	24.8	-4.0	20 55	28.8	654	19 2	729	598	11 35	131	295	20 43	337	258	12 14	79
24	13.4	14 59	20.8	7.5	7 54	13.3	655	17 18	708	625	9 12	83	303	17 19	327	274	1 30	53
25	13.0	13 59	22.4	4.8	24 0	17.6	657	18 52	705	611	12 21	94	296	18 52	316	263	12 22	53
26 **	13.2	16 27	30.9	4.5	0 6	26.4	662	15 25	738	575	21 33	163	306	19 18	361	271	24 0	90
27	10.4	14 20	18.7	-5.9	2 0	24.6	633	18 25	672	584	10 36	88	295	18 51	318	262	1 51	56
28	12.3	13 21	18.5	4.2	5 43	14.3	657	17 52	682	638	9 22	44	296	17 28	312	270	12 22	42
29	13.3	15 8	20.8	5.5	6 26	15.3	660	22 53	697	608	13 20	89	298	17 16	318	269	11 41	49
30	13.1	13 14	22.9	7.0	7 21	15.9	661	13 15	683	622	13 40	61	301	20 53	318	278	11 45	40
31	12.5	12 59	18.5	6.0	7 46	12.5	661	21 12	696	628	13 34	68	297	17 27	312	277	11 40	35
Mean	12.8	-	22.7	2.5	-	20.1	651	-	703	607	-	95.5	300	-	328	268	-	60.3
Mean *	13.3	-	23.0	5.7	-	17.2	656	-	682	627	-	55.0	298	-	318	269	-	48.8
Mean **	12.5	-	26.0	-6.3	-	32.4	645	-	748	562	-	185.8	304	-	357	252	-	104.2
June	9°+ ,	U.T. h m	9°+ ,	9°+ ,	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	13.3	15 38	23.0	6.2	7 34	16.8	667	20 8	699	625	16 17	74	298	21 36	317	278	10 7	39
2	12.2	13 12	21.9	5.3	8 2	16.6	654	17 7	693	618	12 0	75	298	18 40	324	283	10 18	41
3	12.6	12 23	20.8	4.0	0 39	16.8	655	0 32	704	622	8 28	82	296	18 51	311	280	11 52	31
4	13.7	13 20	21.6	6.6	7 55	15.0	665	21 52	702	637	9 19	65	300	17 20	322	282	10 59	40
5	14.3	13 54	25.3	6.6	7 23	18.7	668	20 24	701	644	13 56	57	297	17 27	319	273	13 4	46
6 **	13.5	16 9	20.8	4.9	7 26	15.9	660	5 14	700	572	13 10	128	305	17 49	334	279	10 28	55
7	12.5	12 44	20.1	5.2	8 45	14.9	658	16 15	691	611	13 21	80	302	18 36	318	278	12 46	40
8	12.9	15 57	21.3	5.9	8 46	15.4	662	15 56	729	619	10 29	110	294	17 45	331	270	3 51	61
9 **	12.9	13 33	20.6	5.1	7 3	15.5	660	14 59	718	616	10 3	102	296	18 12	317	270	11 5	47
10 *	13.9	12 50	22.9	7.5	8 28	15.4	666	18 38	699	625	13 16	74	296	18 37	311	270	12 19	41
11	13.4	14 54	21.8	6.1	7 23	15.7	665	22 11	694	631	16 32	63	298	18 27	324	270	11 46	54
12	12.4	14 53	19.2	4.7	6 3	14.5	659	18 25	694	618	9 42	76	298	20 54	317	278	11 52	39
13	12.2	13 32	21.4	0.9	6 46	20.5	658	20 0	690	613	13 56	77	299	7 0	312	272	11 50	40
14	11.8	14 30	19.4	-0.3	20 20	19.7	662	17 52	755	620	10 5	135	296	20 30	327	263	12 4	64
15	13.2	13 33	21.3	1.6	0 13	19.7	650	18 14	710	603	12 30	107	300	16 24	335	266	11 46	69
16	13.3	14 2	23.1	7.1	6 57	16.0	651	19 36	700	612	9 16	88	299	18 7	320	274	12 1	46
17 **	12.7	23 52	27.6	2.8	7 27	24.8	664	17 5	763	551	24 0	212	296	17 5	330	183	24 0	147
18 **	10.4	13 51	20.0	-6.5	6 24	26.5	631	23 17	700	543	0 2	157	286	17 21	333	144	0 5	189
19 **	13.6	4 43	20.9	9.4	7 35	11.5	646	16 4	716	596	4 34	120	302	16 6	344	251	5 6	93
20 *	12.8	14 5	20.5	5.2	8 13	15.3	655	23 4	694	629	10 26	65	303	16 19	320</			

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		
July	9°+ ,	U.T. h m	9°+ ,	9°+ ,	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	11.7	13 46	21.2	-2.8	23 57	24.0	661	23 36	735	642	11 58	93	304	18 13	348	179	24 0	169
2 **	12.5	4 28	28.4	-8.4	1 48	36.8	634	18 30	702	517	3 38	185	274	17 56	340	109	1 17	231
3 **	11.2	14 12	22.2	1.8	7 43	20.4	647	17 44	701	594	11 12	107	314	17 53	349	294	11 41	55
4	11.4	14 32	18.6	3.1	8 10	15.5	647	23 8	690	609	9 40	81	306	17 53	329	284	12 20	45
5	12.8	14 6	19.7	5.0	8 41	14.7	650	0 0	680	613	12 26	67	304	18 42	323	277	11 41	46
6	12.7	14 3	21.6	5.8	7 9	15.8	658	16 14	721	620	11 39	101	307	18 10	323	282	11 41	41
7	10.7	13 48	17.6	4.3	7 4	13.3	658	16 19	699	621	11 35	78	303	17 35	322	275	11 32	47
8	11.5	13 30	19.4	3.9	6 51	15.5	661	17 44	704	626	9 13	78	301	19 14	321	279	11 47	42
9	12.3	15 10	21.7	2.9	5 49	18.8	662	17 55	728	623	10 31	105	300	19 20	332	280	11 30	52
10 *	10.7	16 39	17.6	3.6	7 9	14.0	656	19 20	699	631	12 32	68	304	19 36	323	286	12 24	37
11	12.7	14 30	21.2	5.5	6 36	15.7	660	18 44	704	615	10 20	89	306	18 36	328	284	12 35	44
12 *	11.9	13 59	19.8	6.0	6 52	13.8	659	17 32	690	625	10 2	65	300	17 44	321	279	12 21	42
13 *	11.6	14 42	19.9	4.4	2 10	15.5	660	18 38	682	620	10 40	62	296	18 37	315	272	11 53	43
14 *	12.2	13 46	20.1	5.3	7 48	14.8	664	23 35	691	632	11 24	59	298	18 34	312	277	12 1	35
15	11.2	16 20	19.2	0.9	22 37	18.3	662	20 19	703	625	22 35	78	299	20 2	321	281	12 21	40
16	13.0	13 54	22.3	3.1	5 15	19.2	661	17 50	725	580	11 33	145	305	19 30	332	283	11 15	49
17	12.7	13 51	22.9	1.0	7 34	21.9	667	18 30	713	603	9 28	110	306	18 31	345	280	13 32	65
18	13.2	12 55	22.4	5.2	7 40	17.2	659	15 8	715	620	8 40	95	308	17 50	343	279	11 54	64
19	11.8	14 40	17.8	5.0	7 46	12.8	658	20 23	700	605	9 26	95	302	18 29	322	274	12 13	48
20	11.8	14 52	19.4	3.9	8 46	15.5	660	23 38	685	614	11 52	71	297	17 38	317	267	11 25	50
21	12.3	13 50	19.5	5.4	7 28	14.1	663	18 51	687	630	7 58	57	298	16 31	317	273	12 42	44
22	12.9	17 3	20.1	4.2	23 54	15.9	659	22 26	711	583	8 30	128	297	19 9	333	273	13 26	60
23	12.0	17 11	19.3	3.3	2 15	16.0	656	1 41	691	602	8 49	89	297	19 20	321	247	2 11	74
24 *	12.0	14 23	17.7	6.2	8 10	11.5	660	15 40	684	623	10 16	61	299	17 36	316	280	11 47	36
25	12.0	14 35	20.8	5.9	8 12	14.9	665	17 22	696	628	11 18	68	303	18 43	335	285	12 53	50
26 **	11.8	15 16	19.6	5.6	16 3	14.0	658	23 54	720	604	13 46	116	304	16 12	353	280	11 12	73
27	11.9	13 23	17.8	4.7	6 45	13.1	660	0 0	715	597	9 20	118	296	15 44	320	275	1 13	45
28 **	11.0	3 10	18.9	0.1	19 24	18.8	663	4 21	728	592	10 48	136	301	17 39	351	265	3 39	86
29	11.3	13 34	18.1	5.5	7 14	12.6	654	18 35	683	620	8 53	63	299	19 35	317	279	11 10	38
30	11.1	13 45	18.7	5.0	7 47	13.7	656	19 5	693	622	10 23	71	304	19 7	331	284	12 48	47
31 **	11.2	14 54	24.8	2.0	4 52	22.8	648	23 25	707	607	8 21	100	317	17 28	409	275	10 5	134
Mean	11.9	-	20.3	3.5	-	16.8	658	-	703	611	-	91.6	302	-	331	269	-	62.3
Mean *	11.7	-	19.0	5.1	-	13.9	660	-	689	626	-	63.0	299	-	317	279	-	38.6
Mean **	11.6	-	22.8	0.2	-	22.6	650	-	712	583	-	128.8	302	-	360	245	-	115.8
August	9°+ ,	U.T. h m	9°+ ,	9°+ ,	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 **	11.9	12 36	22.9	2.9	6 46	20.0	656	17 25	765	583	23 53	182	301	17 22	348	253	23 54	95
2	10.7	14 28	19.8	2.9	5 49	16.9	646	4 5	700	589	0 0	111	297	18 9	329	260	0 0	69
3 *	12.2	12 23	19.3	6.2	5 17	13.1	652	17 45	680	609	10 16	71	301	19 36	312	290	10 11	22
4	11.4	14 28	22.3	2.9	7 18	19.4	658	18 30	700	631	9 15	69	298	18 39	323	270	12 30	53
5	11.5	13 3	21.6	3.5	5 52	18.1	658	1 55	712	627	9 32	85	296	17 36	322	273	11 40	49
6	12.6	13 32	22.7	4.8	8 5	17.9	661	19 11	687	628	9 15	59	303	17 47	330	276	11 57	54
7	10.9	14 39	18.1	4.2	8 40	13.9	659	18 1	690	623	11 15	67	298	19 16	331	279	10 58	52
8 *	11.0	13 59	19.3	4.3	8 8	15.0	658	18 18	688	623	9 40	65	301	19 36	318	277	12 58	41
9	11.3	13 2	18.6	5.5	21 36	13.1	652	19 54	689	595	11 27	94	300	19 38	318	277	13 26	41
10 *	11.2	13 3	20.0	5.6	5 29	14.4	660	22 22	691	621	13 27	70	299	5 25	317	274	13 26	43
11	12.9	13 48	21.4	5.6	6 34	15.8	664	21 10	697	620	13 15	77	300	18 37	327	278	10 1	49
12	11.4	13 47	22.2	3.7	8 29	18.5	654	20 43	702	605	10 45	97	302	17 37	335	285	0 12	50
13 **	12.4	13 22	21.2	-3.4	19 4	24.6	647	19 12	727	593	13 48	134	309	18 14	384	265	5 24	119
14	10.4	13 32	17.6	2.9	21 26	14.7	648	20 44	680	607	11 31	73	307	17 37	323	281	11 11	42
15	11.5	2 9	18.6	6.1	5 6	12.5	658	20 14	751	624	7 23	127	307	20 15	334	291	2 53	43
16	10.6	11 14	21.6	3.8	8 2	17.8	651	6 28	689	576	10 21	113	303	16 7	324	281	10 36	43
17	11.2	13 38	20.4	4.8	6 59	15.6	652	16 7	700	615	17 19	85	306	19 29	335	277	12 23	58
18 *	11.1	12 51	19.3	4.5	7 48	14.8	654	20 18	678	627	10 20	51	303	16 37	316	286	11 39	30
19	12.3	14 32	19.6	5.3	7 29	14.3	657	21 41	687	616	9 51	71	304	17 58	339	284	12 5	55
20 **	11.1	6 58	22.0	-4.9	20 57	26.9	653	1 16	712	596	11 28	116	300	19 37	347	263	3 30	84
21 **	9.7	1 34	22															

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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	9°+	U.T. h m	9°+	9°+	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	291 Y	11 32 23
1 *	10.7	13 19	18.1	5.8	6 25	12.3	653	21 38	690	613	9 16	77	303	6 43	314	291	11 32	23	
2 *	10.9	13 3	19.3	4.6	7 22	14.7	654	22 41	682	611	9 50	71	303	15 54	314	293	12 47	21	
3 *	11.5	13 7	23.5	3.9	7 24	19.6	658	23 25	689	621	11 21	68	302	16 20	317	286	10 58	31	
4 *	11.5	12 47	22.5	4.4	6 24	18.1	660	19 4	685	619	10 18	66	302	16 21	315	284	10 55	31	
5	11.3	12 46	21.6	4.8	7 47	16.8	660	20 48	731	619	9 20	112	306	20 50	321	285	11 16	36	
6	10.6	13 32	20.8	0.6	7 56	20.2	661	19 14	698	618	10 25	80	304	20 45	324	284	12 4	40	
7	11.2	13 33	21.1	2.1	19 53	19.0	656	16 58	683	628	8 54	55	304	19 37	327	279	11 42	48	
8	11.4	13 43	20.5	5.2	7 42	15.3	659	15 36	700	617	9 50	83	301	19 10	315	275	12 13	40	
9	11.5	12 32	22.7	5.5	22 38	17.2	651	20 57	677	608	10 25	69	304	19 39	328	285	11 42	43	
10	12.3	13 7	20.9	3.0	0 50	17.9	643	4 57	691	592	10 59	99	311	16 34	352	280	5 18	72	
11	10.1	12 48	19.5	-9.6	21 37	29.1	645	21 43	735	601	21 1	134	313	19 20	364	277	22 0	87	
12	9.8	23 58	21.4	-1.8	23 27	23.2	632	20 26	670	585	15 16	85	311	16 30	341	280	2 22	61	
13	9.8	0 0	21.1	-5.6	23 11	26.7	637	5 6	671	574	22 45	97	309	18 37	366	253	0 17	113	
14	10.2	12 32	20.2	3.2	6 40	17.0	644	1 49	684	600	8 19	84	307	17 26	334	279	4 43	55	
15	12.1	13 36	21.5	4.1	21 53	17.4	640	1 26	697	583	8 7	114	315	15 39	360	282	2 2	78	
16 **	11.0	6 1	21.9	-15.2	21 28	37.1	624	21 3	714	486	9 34	228	319	16 11	427	271	24 0	156	
17	10.4	13 35	20.5	-3.7	22 4	24.2	632	22 16	740	569	9 10	171	315	15 29	364	267	0 22	97	
18	10.6	12 48	17.9	-7.3	18 5	25.2	650	18 12	693	617	9 40	76	309	18 10	350	279	2 57	71	
19	10.6	17 35	29.6	-7.2	19 10	36.8	642	16 51	763	531	17 37	232	328	17 41	463	284	11 54	179	
20 **	10.3	10 48	22.8	-25.0	18 33	47.8	609	16 52	715	494	9 39	221	322	16 43	405	252	24 0	153	
21 **	10.5	4 59	23.6	-5.5	22 47	29.1	618	22 53	726	491	9 45	235	313	16 19	386	240	0 7	146	
22 **	9.7	22 57	24.4	-10.2	19 29	34.6	624	18 38	726	534	11 50	192	309	15 46	369	262	1 46	107	
23	9.1	3 9	20.5	-11.0	20 41	31.5	637	20 51	737	586	11 10	151	309	15 37	350	253	3 31	97	
24	9.8	5 51	18.5	-2.5	20 17	16.0	636	20 36	689	575	10 40	114	315	13 46	353	275	1 22	78	
25 **	9.6	22 16	59.5	-27.8	22 58	87.3	613	18 1	777	334	22 21	443	339	16 22	524	188	22 19	336	
26	4.2	12 39	14.6	-43.4	0 57	58.0	602	3 47	675	322	0 49	353	302	16 46	349	130	0 50	219	
27	7.9	13 22	19.2	-8.9	2 52	28.1	643	7 50	687	576	11 40	111	316	0 9	339	279	3 55	60	
28	9.6	14 12	15.8	-1.5	0 19	17.3	642	21 27	663	623	10 35	40	313	22 35	324	292	1 33	32	
29	9.3	15 6	21.2	-2.5	16 50	23.7	646	16 57	695	607	15 12	88	318	16 40	380	295	11 51	85	
30 *	10.0	13 18	16.8	3.4	0 13	13.4	643	22 36	667	616	11 19	51	313	15 41	327	296	12 8	31	
Mean	10.2	-	22.1	-4.4	-	26.5	640	-	702	568	-	133.3	311	-	357	269	-	87.5	
Mean *	10.9	-	20.0	4.4	-	15.6	654	-	683	616	-	66.6	305	-	317	290	-	27.4	
Mean **	10.2	-	30.4	-16.7	-	47.2	618	-	732	468	-	263.8	320	-	422	243	-	179.6	
October	9°+	U.T. h m	9°+	9°+	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	10.3	13 25	16.1	5.7	8 47	10.4	654	16 44	676	632	10 37	44	313	16 46	325	292	12 9	33	
2	9.6	12 23	15.8	3.2	2 32	12.6	652	21 28	690	623	9 9	67	313	17 27	326	301	7 11	25	
3	10.4	12 13	18.7	5.0	20 57	13.7	651	20 46	680	620	10 47	60	312	18 5	321	300	11 22	21	
4 *	10.3	13 32	16.9	5.5	8 47	11.4	655	19 54	680	622	10 16	58	312	18 35	324	299	10 51	25	
5	10.7	13 0	16.7	6.2	8 20	10.5	657	14 42	669	633	10 34	36	312	19 12	322	295	12 52	27	
6 *	10.6	13 50	16.1	6.6	1 54	9.5	660	18 29	677	629	10 32	48	308	7 14	320	287	13 6	33	
7	9.5	14 52	24.0	-11.7	20 12	35.7	646	6 48	691	577	19 54	114	316	20 1	400	289	11 32	111	
8 **	10.3	13 37	18.6	0.3	3 9	18.3	632	2 51	730	554	8 30	176	322	16 45	369	266	3 13	103	
9	10.2	13 57	17.8	-12.5	21 34	30.3	634	21 43	741	577	14 14	164	317	15 1	338	294	0 10	44	
10	10.1	13 59	19.6	-5.1	17 36	24.7	635	23 23	671	565	11 14	106	318	17 7	360	294	3 11	66	
11	10.6	14 7	17.3	5.8	1 47	11.5	637	2 4	660	594	12 8	66	320	16 28	352	290	1 10	62	
12	11.4	13 39	18.9	6.7	20 53	12.2	652	5 51	672	607	11 19	65	314	17 36	325	299	11 17	26	
13	9.2	11 33	19.5	-3.5	22 16	23.0	648	23 26	699	609	12 15	90	311	20 38	334	265	23 49	69	
14	9.2	13 20	16.0	-5.3	0 22	21.3	639	19 11	702	610	9 19	92	313	19 10	342	267	0 0	75	
15	10.2	13 30	16.1	2.2	23 31	13.9	650	23 34	706	618	11 19	88	312	16 8	324	298	11 18	26	
16	10.1	12 11	20.4	-3.8	22 47	24.2	646	22 59	697	609	19 58	88	313	20 18	341	292	23 56	49	
17 **	9.7	5 55	21.7	-6.9	19 31	28.6	628	19 34	811	536	11 32	275	315	15 54	398	264	1 54	134	
18 **	9.7	5 53	18.7	-10.4	17 4	29.1	635	17 13	712	576	10 17	136	317	17 3	364	289	0 49	75	
19 **	7.6	3 9	15.3	-11.6	18 22	26.9	635	18 26	712	578	12 40	134	311	18 26	358	268	3 40	90	
20	9.1	12 40	16.0	-5.3	0 3	21.3	638	20 10	704	599	10 51	105	311	20 9	337	267	1 4	70	
21	9.6	13 40	15.2	3.4	19 36	11.8	647	19 46	686	610	10 22	76	312						

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 25

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	
November	9°+	U.T. h m	9°+ ,	9°+ ,	U.T. h m	,	18000 Y +	U.T. h m	18000 Y +	U.T. h m	Y	43000 Y +	U.T. h m	43000 Y +	43000 Y +	U.T. h m	43000 Y +	308 11 0	19
1 *	10.1	13 10	15.8	5.7	22 46	10.1	649	23 35	668	620	11 20	48	318	23 0	327	308	11 0	19	
2	9.1	14 0	16.4	0.6	22 52	15.8	648	4 20	685	615	14 34	70	317	17 27	337	294	10 30	43	
3 **	7.8	13 8	16.2	-5.0	22 9	21.2	645	21 22	714	587	22 2	127	311	20 33	336	290	3 48	46	
4	9.0	6 59	20.7	-6.7	0 36	27.4	640	22 31	696	587	15 8	109	314	15 56	353	286	3 20	67	
5	9.2	14 0	13.4	2.2	0 55	11.2	647	22 55	698	614	11 13	84	317	19 45	337	302	11 0	35	
6	11.0	14 41	19.2	-10.2	19 20	29.4	638	19 30	748	599	19 3	149	327	19 28	375	306	0 1	69	
7	9.1	15 29	14.3	-2.5	2 56	16.8	640	2 34	688	600	16 9	88	321	16 28	344	286	2 52	58	
8	9.8	12 17	15.1	3.4	2 32	11.7	657	2 10	673	642	20 51	31	318	20 27	333	303	2 24	30	
9	11.7	17 0	19.3	6.0	24 0	13.3	659	10 58	683	619	17 32	64	317	18 32	336	299	7 17	37	
10 *	9.8	13 25	13.0	6.0	0 6	7.0	661	9 54	677	648	14 27	29	315	0 12	324	306	10 22	18	
11	9.7	13 22	14.4	0.6	21 37	13.8	654	19 51	670	634	20 52	36	315	22 7	326	309	10 2	17	
12	10.5	14 14	16.9	2.4	2 4	14.5	643	0 32	703	571	15 20	132	320	15 44	361	285	1 39	76	
13 **	9.5	16 20	23.4	-9.5	20 0	32.9	627	23 15	684	534	19 52	150	328	17 20	392	302	8 57	90	
14 **	7.3	21 12	24.3	-14.1	20 16	38.4	631	18 1	691	584	21 23	107	318	17 20	347	267	1 10	80	
15 **	8.6	13 11	16.0	-0.9	0 2	16.9	639	0 23	683	595	10 40	88	318	17 16	342	297	0 50	45	
16	9.2	15 5	13.5	-3.3	0 33	10.2	649	0 4	675	618	12 39	57	316	16 45	334	304	0 21	30	
17	8.9	13 22	14.4	-15.9	20 11	30.3	654	6 41	683	604	21 3	79	313	20 20	343	301	10 25	42	
18 *	9.6	11 40	13.1	5.0	20 29	8.1	647	22 49	661	624	1 45	37	316	16 51	324	304	10 45	20	
19 *	9.4	11 59	13.9	1.4	22 57	12.5	660	23 19	680	648	16 39	32	315	17 28	326	302	10 55	24	
20	10.0	16 50	18.1	0.5	20 18	17.6	659	22 49	693	634	23 33	59	317	20 28	339	305	11 4	34	
21	9.0	11 50	12.5	0.4	23 56	12.1	661	18 12	680	641	1 48	39	313	20 47	322	304	12 1	18	
22	9.4	17 58	15.1	0.4	0 50	14.7	661	16 50	679	614	18 29	65	313	19 36	336	297	11 22	39	
23	9.4	14 21	16.1	-3.9	20 36	20.0	652	18 58	675	610	15 47	65	318	20 45	342	307	11 4	35	
24	9.9	15 23	17.9	5.1	15 43	12.8	653	20 24	675	603	15 25	72	319	15 44	340	307	6 39	33	
25	10.1	14 53	17.3	0.5	22 23	16.8	654	21 41	710	609	15 20	101	315	21 14	330	298	22 2	32	
26	9.8	12 17	15.2	-0.4	19 9	15.6	653	7 56	668	619	14 3	49	317	19 29	331	304	9 22	27	
27 *	9.4	13 7	14.1	5.9	1 21	8.2	661	22 39	681	646	10 17	35	313	0 10	323	305	11 59	18	
28	8.4	12 54	15.0	-3.6	22 0	18.6	658	22 22	703	616	19 7	87	312	19 27	335	290	23 8	45	
29 **	8.8	13 58	14.2	-1.6	20 55	15.8	650	23 1	679	596	16 11	83	314	16 26	345	294	2 44	51	
30	9.2	15 59	14.6	-1.0	0 4	15.6	650	0 14	675	610	14 21	65	314	18 31	336	298	11 2	38	
Mean	9.4	-	16.1	-0.9	-	17.0	650	-	686	611	-	74.6	317	-	339	299	-	40.5	
Mean *	9.7	-	14.0	4.8	-	9.2	656	-	673	637	-	36.2	315	-	325	305	-	19.8	
Mean **	8.4	-	18.8	-6.2	-	25.0	638	-	690	579	-	111.0	318	-	352	290	-	62.4	
December	9°+	U.T. h m	9°+ ,	9°+ ,	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	9.2	12 35	15.1	1.2	23 10	13.9	653	7 51	676	627	11 35	49	314	16 45	331	300	10 14	31	
2	9.1	14 20	15.5	1.3	22 7	14.2	645	7 56	675	603	18 59	72	318	19 10	346	299	7 0	47	
3	9.7	15 53	16.6	-1.0	22 9	17.6	653	1 14	681	632	20 40	49	316	18 50	336	298	2 34	38	
4	9.1	14 32	17.1	-9.6	21 4	26.7	656	21 10	701	614	14 38	87	316	18 31	342	301	2 15	41	
5	9.5	12 56	14.0	4.8	21 33	9.2	657	22 22	686	636	13 36	50	315	17 43	327	303	10 47	24	
6 *	9.6	13 27	12.9	6.0	20 29	6.9	664	18 39	679	646	20 17	33	310	20 35	321	299	11 0	22	
7	9.6	13 48	14.5	0.4	21 2	14.1	663	7 8	684	627	17 44	57	312	18 39	332	302	14 10	30	
8 **	8.0	1 30	24.2	-26.3	20 8	50.5	645	1 31	709	570	20 5	139	316	20 11	373	270	2 4	103	
9 **	8.9	13 2	19.2	-9.2	18 40	28.4	636	18 17	702	580	15 57	122	321	17 35	363	293	3 40	70	
10	9.0	13 3	15.0	-6.0	16 50	21.0	646	22 31	713	599	16 47	114	321	16 53	350	298	22 51	52	
11	8.6	8 44	20.8	-0.7	1 21	21.5	645	23 7	707	584	15 41	123	315	16 26	349	296	0 46	53	
12	9.0	13 22	12.7	4.1	21 10	8.6	656	7 5	677	625	13 46	52	316	14 43	324	307	10 15	17	
13 *	9.2	12 27	12.4	5.9	21 28	6.5	660	5 45	684	642	13 5	42	315	16 44	327	304	7 48	23	
14	8.6	13 13	13.7	-3.3	22 46	17.0	665	21 52	694	630	21 26	64	312	21 50	333	298	10 40	35	
15	8.1	14 24	15.4	-6.1	19 51	21.5	648	18 12	680	577	19 28	103	318	20 8	343	302	10 1	41	
16	9.2	13 46	12.7	3.5	22 3	9.2	661	21 52	682	646	10 33	36	313	0 1	324	306	9 57	18	
17	9.1	17 48	16.1	-2.2	23 10	18.3	657	8 8	682	608	17 11	74	320	18 42	355	302	11 6	53	
18	8.8	13 20	15.1	-4.4	21 56	19.5	654	8 21	681	619	21 46	62	317	22 9	333	302	10 13	31	
19	8.3	13 5	14.8	-2.3	23 32	17.1	658	23 11	704	613	13 48	91	318	14 45	337	303	23 31	34	
20	9.0	3 8	13.9	3.6	1 36	10.3	654	7 17	675	611	9 31	64	314	18 31	329	301	3 38	28	
21	8.5	14 14	12.7	-2.2	22 48	14.9	665	22 58	701	645	23 55	56	312	20 14	319	300	12 9	19	
22 **	7.0</																		

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE IV(A). - THREE-HOUR-RANGE INDICES "K" FOR THE YEAR 1951. (SEE INTRODUCTION PAGE XII).

Date	January		February		March		April		May		June	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3233	3333	23	4432	3244	26	4433	3311	22	2122	1123	14
2	3333	4353	27	2221	1212	13	0113	3313	15	3332	3544	27
3	3423	3233	23	1112	1212	11	2232	2211	15	4334	4554	32
4	2212	1222	14	0023	3332	16	0232	2114	15	4443	4534	31
5	1122	2344	19	1233	4344	24	1132	2211	13	4435	4344	31
6	1102	2230	11	5544	2322	27	1353	4333	25	3433	4455	31
7	0111	2212	10	3221	2333	19	3334	5455	32	5433	3444	30
8	2022	3321	15	3122	2564	25	3235	4555	32	4332	3344	26
9	1222	2111	12	2333	4445	28	4333	3344	27	3333	4343	26
10	1111	1544	18	4343	3345	29	4443	4354	31	4233	3243	24
11	5132	2344	24	4323	3445	28	4333	3453	28	3222	3314	20
12	3333	3332	23	5543	3464	34	4334	4353	29	4233	3335	26
13	2332	2243	21	3333	3344	26	2334	4466	32	5434	5435	33
14	3322	3333	22	2233	3243	22	4433	4463	31	4333	3333	25
15	4322	3344	25	1123	2223	16	5433	3321	24	2122	3332	18
16	4123	4445	27	0122	1221	11	0234	4444	25	3112	1213	14
17	4322	1211	16	0021	2233	13	2244	4433	26	4222	3321	19
18	1112	3323	16	3233	2342	22	3334	3334	26	1146	7655	35
19	3231	3344	23	1223	3333	20	3333	2121	18	5333	3314	25
20	4212	2211	15	3112	2211	13	1123	3311	15	2332	3455	27
21	1023	4445	23	2222	3333	20	1122	3134	17	5434	4313	27
22	4444	5466	37	4444	5456	36	4324	4555	32	4434	4443	30
23	4234	3354	28	5455	4566	40	3323	3355	27	3432	3212	20
24	1222	3132	16	4434	3644	32	3233	3354	26	1344	5454	30
25	1212	3133	16	3223	2335	23	3424	3313	23	4433	3553	30
26	0113	2444	19	2223	4442	23	3133	3344	24	5212	2320	17
27	3332	3333	23	6433	4555	35	3322	3333	22	0123	3333	18
28	3333	3354	27	5555	4434	35	3111	2221	13	3123	2221	16
29	1333	2333	21				1344	4344	27	3322	3331	20
30	3233	2334	23				4213	3222	19	1122	2111	11
31	4554	4445	35				1133	2331	17			

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 27

TABLE IV(A). - THREE-HOUR-RANGE INDICES "K" FOR THE YEAR 1951. (SEE INTRODUCTION PAGE XII).

Date	July		August		September		October		November		December	
	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum	Indices	Sum
1	3223	3355	26	4223	3666	32	4323	3313	22	2212	1322	15
2	6655	3544	38	5432	3333	26	2223	2222	17	3333	2324	23
3	3433	4443	28	2123	3222	17	3233	3113	19	2212	3133	17
4	3433	3334	26	3322	4344	25	2333	3323	22	1123	1232	15
5	3333	3322	22	4223	3432	23	3133	3244	23	3011	1122	11
6	1113	3432	18	3133	3333	22	3243	3343	25	2112	1100	8
7	2122	2323	17	1323	2333	20	3123	3342	21	1123	3565	26
8	3223	2333	21	2223	2223	18	1133	3433	21	6554	5444	37
9	3422	3542	25	2223	3333	21	3223	4433	24	4334	5335	30
10	3132	3331	19	2222	3323	19	4444	4332	28	4335	3555	33
11	1133	3332	19	2233	4333	23	3333	3446	29	4234	3330	22
12	2223	3322	19	3333	3334	25	4333	4435	29	1224	4332	21
13	3322	1222	17	2444	4451	28	5433	4445	32	3334	3345	28
14	2123	2323	18	2113	2334	19	4443	4333	28	5233	1354	26
15	2122	2435	21	3333	3453	27	4353	4434	30	3222	2144	20
16	3424	5543	30	1355	4423	27	3545	5556	38	3333	3345	27
17	3345	4442	29	3233	3523	24	5344	4435	32	5555	5675	43
18	3344	4533	29	2222	2211	14	4333	3553	29	4454	4654	36
19	1233	3331	19	0133	3432	19	3233	6754	33	5444	4565	37
20	3323	3312	20	5543	3354	32	4465	5665	41	5233	3352	26
21	3232	2321	18	5444	4545	35	4556	5555	40	3334	2232	22
22	2454	3543	30	5443	3343	29	5555	5465	40	3333	3544	28
23	5334	3333	27	3123	3535	25	4544	4455	35	3223	3333	22
24	1232	3311	16	4334	3344	28	5544	4344	33	2132	1222	15
25	1223	3433	21	4454	3552	32	3344	6678	41	2123	2211	14
26	3444	4424	29	4344	4445	32	7644	3423	33	1133	3235	21
27	4234	2334	25	2333	3455	28	5555	4333	33	3323	3101	16
28	4534	4553	33	3334	4344	28	4223	2102	16	0335	6885	38
29	3423	3332	23	3333	3423	24	3222	4543	25	3333	3211	19
30	2223	3344	23	1113	3333	18	3322	2111	15	1233	2210	14
31	3443	4545	32	2234	3334	24				0122	1112	10

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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

All Days

DECLINATION WEST (Unit 0.01)

Month and Season, 1951	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
January	-170	-114	-117	-128	-84	-52	-16	+1	+12	+65	+122	+205	+287	+318	+215	+159	+160	+124	+103	-28	-158	-340	-335	-229
February	-134	-133	-182	-214	-162	-104	-89	-81	-25	+23	+142	+279	+397	+424	+400	+230	+159	+45	-40	-158	-167	-169	-240	-201
March	-238	-205	-226	-141	-153	-145	-97	-165	-171	-106	+80	+358	+542	+633	+585	+441	+235	+116	-78	-163	-236	-239	-332	-283
April	-192	-254	-274	-284	-258	-245	-277	-367	-359	-228	-1	+325	+630	+780	+720	+648	+468	+221	+23	-107	-176	-226	-292	-272
May	-185	-200	-202	-220	-341	-418	-490	-506	-428	-218	+77	+390	+675	+763	+684	+535	+405	+194	+86	+5	-86	-135	-156	-223
June	-120	-148	-198	-239	-308	-453	-495	-525	-481	-348	-66	+262	+509	+620	+644	+584	+440	+283	+174	+95	-49	-53	-41	-82
July	-101	-151	-183	-176	-256	-353	-451	-510	-514	-336	-81	+221	+462	+605	+630	+551	+405	+278	+141	+18	+1	-28	-53	-118
August	-137	-133	-199	-210	-218	-356	-397	-411	-363	-166	+108	+394	+613	+675	+595	+427	+309	+83	+2	-80	-101	-121	-167	-138
September	-205	-237	-290	-300	-222	-93	-173	-279	-207	-81	+211	+467	+650	+673	+542	+363	+147	+80	-136	-150	-116	-216	-183	-252
October	-191	-145	-143	-84	-86	-57	-59	-150	-193	-157	+60	+323	+516	+557	+519	+370	+186	+34	+19	-70	-287	-338	-339	-291
November	-318	-205	-150	-83	-53	-9	+33	+9	-7	+1	+100	+244	+355	+380	+360	+322	+246	+155	+96	-163	-321	-321	-313	-348
December	-169	-115	-34	+12	+34	+51	+55	+12	+12	+24	+104	+217	+305	+373	+282	+196	+86	+84	-133	-187	-248	-301	-360	-302
Year	-180	-170	-183	-172	-176	-186	-205	-248	-227	-127	+71	+307	+495	+567	+515	+402	+270	+141	+21	-82	-162	-207	-234	-228
Winter	-198	-142	-121	-103	-66	-29	-4	-15	-2	+28	+117	+236	+336	+374	+314	+227	+163	+102	+7	-134	-224	-283	-312	-270
Equinox	-207	-210	-233	-202	-180	-135	-152	-240	-233	-143	+88	+368	+585	+661	+592	+456	+259	+113	-43	-123	-204	-255	-287	-275
Summer	-136	-158	-196	-211	-281	-395	-458	-488	-447	-267	+10	+317	+565	+666	+638	+524	+390	+210	+101	+10	-59	-84	-104	-140

INCLINATION (Unit 0.01)

January	+ 15	+	1	+	2	- 30	- 33	- 61	- 62	- 56	- 43	- 15	+ 11	- 6	- 20	- 10	0	+	3	+ 22	+ 37	+ 51	+ 44	+ 52	+ 39	+ 38	+ 28
February	- 19	-	42	-	17	- 21	- 32	- 58	- 65	- 50	- 22	- 1	+ 38	+ 50	+ 40	+ 31	+ 30	+ 39	+ 61	+ 52	+ 31	+ 33	+ 19	- 16	- 30	- 47	
March	- 32	-	44	-	31	- 27	- 42	- 65	- 70	- 51	- 34	+ 17	+ 49	+ 46	+ 40	+ 31	+ 37	+ 62	+ 85	+ 75	+ 47	+ 18	- 29	- 17	- 34	- 31	
April	- 76	-	69	-	65	- 53	- 47	- 63	- 33	+ 1	+ 44	+ 73	+ 110	+ 100	+ 95	+ 71	+ 40	+ 27	+ 30	+ 7	+ 1	- 9	- 29	- 35	- 42	- 74	
May	- 36	-	39	-	30	- 25	- 23	- 5	+ 22	+ 54	+ 92	+ 116	+ 98	+ 61	+ 36	+ 40	+ 26	+ 2	- 27	- 53	- 68	- 61	- 32	- 56	- 52	- 38	
June	- 52	-	48	-	50	- 26	- 31	- 15	+ 39	+ 69	+ 95	+ 115	+ 125	+ 107	+ 97	+ 90	+ 36	- 12	- 20	- 50	- 92	- 98	- 86	- 74	- 73	- 51	
July	- 80	-	70	-	54	- 61	- 62	- 23	+ 18	+ 73	+ 130	+ 165	+ 155	+ 115	+ 84	+ 51	+ 37	+ 5	- 37	- 50	- 70	- 52	- 64	- 60	- 60	- 89	
August	- 63	-	82	-	75	- 80	- 67	- 43	+ 21	+ 68	+ 139	+ 160	+ 151	+ 110	+ 53	+ 45	+ 53	+ 42	+ 20	- 5	- 28	- 56	- 87	- 99	- 102	- 80	
September	- 91	-	106	-	89	- 138	- 103	- 80	- 52	+ 25	+ 118	+ 172	+ 158	+ 136	+ 65	+ 45	+ 25	+ 62	+ 44	+ 46	+ 11	+ 5	- 24	- 74	- 76	- 75	
October	- 49	-	63	-	69	- 75	- 71	- 95	- 78	- 39	+ 15	+ 64	+ 79	+ 89	+ 75	+ 59	+ 39	+ 60	+ 65	+ 37	+ 36	+ 37	- 4	- 26	- 35	- 54	
November	- 10	-	3	-	26	- 38	- 66	- 77	- 86	- 79	- 54	- 18	- 3	+ 10	+ 24	+ 49	+ 80	+ 83	+ 69	+ 38	+ 35	+ 39	+ 29	+ 19	+ 2	- 16	
December	- 12	-	11	-	30	- 39	- 61	- 91	- 103	- 87	- 59	- 13	+ 35	+ 53	+ 35	+ 46	+ 56	+ 73	+ 70	+ 53	+ 36	+ 58	+ 26	+ 5	- 11	- 26	
Year	- 42	-	48	-	45	- 51	- 53	- 56	- 37	- 6	+ 35	+ 70	+ 84	+ 73	+ 52	+ 46	+ 38	+ 37	+ 32	+ 16	- 1	- 3	- 19	- 33	- 40	- 46	
Winter	- 6	-	14	-	18	- 32	- 48	- 72	- 79	- 68	- 44	- 12	+ 20	+ 27	+ 20	+ 29	+ 41	+ 49	+ 55	+ 45	+ 38	+ 43	+ 31	+ 12	0	- 15	
Equinox	- 62	-	70	-	63	- 73	- 66	- 76	- 58	- 16	+ 36	+ 81	+ 99	+ 93	+ 69	+ 51	+ 35	+ 53	+ 56	+ 41	+ 24	+ 13	- 21	- 38	- 47	- 59	
Summer	- 58	-	60	-	52	- 48	- 46	- 21	+ 25	+ 66	+ 114	+ 139	+ 132	+ 98	+ 67	+ 56	+ 38	+ 9	- 16	- 39	- 64	- 67	- 72	- 72	- 64		

HORIZONTAL INTENSITY (Unit 0.1γ)

January	- 22	-	12	-	19	+ 27	+ 30	+ 74	+ 71	+ 64	+ 43	+ 2	- 33	- 14	+ 6	+ 18	+ 5	+ 7	- 10	- 33	- 44	- 29	- 40	- 26	- 35	- 30	
February	+ 18	+	39	-	5	+	2	+ 24	+ 66	+ 72	+ 53	+ 9	- 24	- 80	- 101	- 79	- 53	- 26	- 26	- 50	- 28	+ 6	- 4	+ 14	+ 48	+ 57	+ 67
March	+ 29	+	44	+	23	+ 17	+ 40	+ 75	+ 81	+ 61	+ 31	- 57	- 114	- 119	- 103	- 73	- 48	- 54	- 59	- 36	+ 7	+ 33	+ 81	+ 44	+ 60	+ 38	
April	+ 86	+	59	+	49	+ 33	+ 31	+ 61	+ 27	- 17	- 82	- 140	- 215	- 214	- 206	- 142	- 48	+ 3	+ 39	+ 96	+ 100	+ 96	+ 103	+ 91	+ 83	+ 107	
May	+ 32	+	35	+	24	+ 23	+ 34	+ 10	- 29	- 86	- 157	- 212	- 182	- 142	- 108	- 48	+ 25	+ 94	+ 161	+ 186	+ 171	+ 112	+ 122	+ 93	+ 55		
June	+ 57	+	52	+	54	+ 27	+ 44	+ 18	- 61	- 111	- 158	- 204	- 240	- 237	- 217	- 177	- 59	+ 47	+ 81	+ 139	+ 209	+ 211	+ 180	+ 145	+ 127	+ 82	
July	+ 85	+	59	+	43	+ 55	+ 67	+ 11	- 42	- 113	- 205	- 273	- 275	- 238	- 193	- 119	- 60	+ 32	+ 119	+ 159	+ 197	+ 161	+ 160	+ 129	+ 112	+ 132	
August	+ 67	+	89	+	74	+ 88	+ 76	+ 45	- 39	- 104	- 223	- 266	- 269</														

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

All Days

NORTH COMPONENT (Unit 0.1γ)

Month and Season, 1951	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
January	- 7	- 2	- 9	+ 38	+ 37	+ 78	+ 71	+ 63	+ 41	- 4	- 43	- 32	- 19	- 10	- 14	- 7	- 21	- 43	- 52	- 26	- 26	+ 4	- 5	- 10
February	+ 29	+ 50	+ 11	+ 21	+ 38	+ 74	+ 79	+ 59	+ 11	- 26	- 91	- 124	- 112	- 89	- 60	- 46	- 63	- 32	+ 9	+ 10	+ 28	+ 62	+ 77	+ 84
March	+ 49	+ 61	+ 42	+ 29	+ 53	+ 87	+ 88	+ 75	+ 45	- 47	- 119	- 149	- 127	- 98	- 92	- 79	- 46	+ 14	+ 47	+ 100	+ 64	+ 88	+ 62	
April	+ 102	+ 80	+ 72	+ 57	+ 53	+ 81	+ 51	+ 15	- 50	- 118	- 212	- 239	- 258	- 208	- 110	- 53	- 2	+ 76	+ 97	+ 104	+ 117	+ 109	+ 107	+ 129
May	+ 48	+ 52	+ 41	+ 42	+ 63	+ 46	+ 14	- 41	- 118	- 190	- 216	- 213	- 199	- 173	- 107	- 22	+ 58	+ 142	+ 176	+ 168	+ 118	+ 132	+ 105	+ 74
June	+ 67	+ 64	+ 70	+ 47	+ 70	+ 57	- 17	- 64	- 114	- 171	- 231	- 257	- 258	- 228	- 114	- 4	+ 42	+ 113	+ 191	+ 200	+ 182	+ 148	+ 129	+ 88
July	+ 93	+ 71	+ 58	+ 70	+ 88	+ 41	- 2	- 67	- 158	- 240	- 264	- 254	- 231	- 170	- 114	- 16	+ 82	+ 133	+ 182	+ 157	+ 158	+ 130	+ 115	+ 141
August	+ 78	+ 99	+ 89	+ 102	+ 97	+ 75	- 4	- 67	- 189	- 248	- 275	- 253	- 190	- 160	- 130	- 55	+ 14	+ 89	+ 125	+ 163	+ 182	+ 181	+ 175	+ 114
September	+ 82	+ 95	+ 77	+ 160	+ 110	+ 77	+ 58	- 36	- 179	- 271	- 281	- 272	- 169	- 118	- 33	- 18	+ 51	+ 36	+ 92	+ 74	+ 97	+ 152	+ 112	+ 96
October	+ 55	+ 66	+ 76	+ 76	+ 80	+ 117	+ 98	+ 58	- 20	- 102	- 157	- 196	- 184	- 149	- 85	- 72	- 37	+ 31	+ 28	+ 2	+ 64	+ 86	+ 79	+ 86
November	+ 30	- 4	+ 25	+ 36	+ 78	+ 96	+ 103	+ 95	+ 58	0	- 34	- 64	- 83	- 107	- 130	- 116	- 76	- 22	- 17	0	+ 22	+ 20	+ 36	+ 49
December	+ 18	+ 5	+ 21	+ 30	+ 61	+ 100	+ 117	+ 103	+ 61	- 10	- 84	- 112	- 88	- 98	- 82	- 91	- 65	- 43	+ 7	- 26	+ 22	+ 40	+ 57	+ 56
Year	+ 54	+ 53	+ 48	+ 59	+ 69	+ 77	+ 55	+ 16	- 51	- 119	- 167	- 180	- 162	- 136	- 90	- 49	- 8	+ 36	+ 71	+ 73	+ 89	+ 94	+ 90	+ 81
Winter	+ 17	+ 12	+ 12	+ 31	+ 53	+ 87	+ 92	+ 80	+ 43	- 10	- 63	- 83	- 75	- 76	- 71	- 65	- 56	- 35	- 13	- 10	+ 11	+ 31	+ 41	+ 45
Equinox	+ 72	+ 75	+ 67	+ 80	+ 74	+ 90	+ 74	+ 28	- 51	- 134	- 192	- 214	- 190	- 150	- 81	- 59	- 17	+ 24	+ 58	+ 57	+ 94	+ 103	+ 96	+ 93
Summer	+ 71	+ 71	+ 64	+ 65	+ 79	+ 55	- 2	- 60	- 145	- 212	- 247	- 244	- 220	- 183	- 116	- 24	+ 49	+ 119	+ 169	+ 172	+ 160	+ 148	+ 131	+ 104

WEST COMPONENT (Unit 0.1γ)

January	- 95	- 63	- 66	- 64	- 40	- 16	+ 3	+ 11	+ 13	+ 35	+ 60	+ 108	+ 155	+ 173	+ 116	+ 86	+ 84	+ 61	+ 48	- 20	- 91	- 186	- 185	- 127
February	- 69	- 65	- 98	- 114	- 83	- 45	- 36	- 35	- 12	+ 8	+ 63	+ 133	+ 200	+ 219	+ 210	+ 119	+ 77	+ 20	- 20	- 85	- 87	- 83	- 119	- 97
March	- 123	- 103	- 117	- 73	- 76	- 66	- 39	- 79	- 87	- 66	+ 25	+ 173	+ 274	+ 327	+ 306	+ 228	+ 116	+ 56	- 41	- 82	- 113	- 121	- 168	- 145
April	- 89	- 127	- 139	- 147	- 133	- 121	- 144	- 199	- 205	- 144	- 35	+ 140	+ 304	+ 395	+ 378	+ 347	+ 257	+ 134	+ 28	- 42	- 78	- 106	- 143	- 129
May	- 94	- 102	- 104	- 114	- 177	- 222	- 267	- 285	- 254	- 151	+ 7	+ 180	+ 339	+ 391	+ 359	+ 290	+ 232	+ 130	+ 76	+ 30	- 28	- 53	- 69	- 111
June	- 55	- 71	- 97	- 124	- 158	- 240	- 275	- 299	- 283	- 219	- 74	+ 102	+ 238	+ 304	+ 335	+ 320	+ 249	+ 174	+ 127	+ 85	+ 3	- 5	- 2	- 31
July	- 40	- 71	- 91	- 85	- 126	- 187	- 248	- 291	- 308	- 224	- 87	+ 80	+ 217	+ 305	+ 328	+ 300	+ 236	+ 174	+ 107	+ 35	+ 26	+ 6	- 10	- 42
August	- 63	- 57	- 95	- 98	- 105	- 183	- 219	- 237	- 230	- 131	+ 15	+ 175	+ 306	+ 345	+ 306	+ 226	+ 172	+ 60	+ 21	- 18	- 26	- 37	- 64	- 57
September	- 99	- 115	- 147	- 139	- 104	- 39	- 85	- 159	- 143	- 88	+ 70	+ 212	+ 329	+ 350	+ 292	+ 196	+ 89	+ 50	- 60	- 70	- 48	- 94	- 82	- 123
October	- 96	- 69	- 66	- 34	- 34	- 12	- 17	- 73	- 109	- 103	+ 7	+ 146	+ 254	+ 282	+ 272	+ 192	+ 96	+ 24	+ 15	- 38	- 147	- 172	- 174	- 146
November	- 170	- 113	- 78	- 40	- 17	+ 11	+ 35	+ 20	+ 6	+ 1	+ 49	+ 124	+ 182	+ 191	+ 177	+ 158	+ 123	+ 82	+ 50	- 90	- 173	- 173	- 166	- 183
December	- 90	- 62	- 15	+ 11	+ 29	+ 44	+ 49	+ 23	+ 17	+ 12	+ 44	+ 101	+ 153	+ 189	+ 142	+ 93	+ 37	+ 39	- 72	- 107	- 133	- 159	- 189	- 157
Year	- 90	- 85	- 93	- 85	- 85	- 90	- 104	- 134	- 133	- 89	+ 12	+ 139	+ 246	+ 289	+ 268	+ 213	+ 147	+ 84	+ 23	- 33	- 75	- 99	- 114	- 112
Winter	- 106	- 76	- 64	- 52	- 28	- 1	+ 13	+ 5	+ 6	+ 14	+ 54	+ 116	+ 172	+ 193	+ 161	+ 114	+ 80	+ 50	+ 1	- 75	- 121	- 150	- 165	- 141
Equinox	- 102	- 103	- 117	- 98	- 87	- 59	- 71	- 127	- 136	- 100	+ 17	+ 168	+ 290	+ 338	+ 312	+ 241	+ 139	+ 66	- 14	- 58	- 96	- 123	- 142	- 136
Summer	- 63	- 75	- 97	- 105	- 141	- 208	- 252	- 278	- 269	- 181	- 35	+ 134	+ 275	+ 336	+ 332	+ 284	+ 222	+ 134	+ 83	+ 33	- 6	- 22	- 36	- 60

VERTICAL COMPONENT (Unit 0.1γ)

January	+ 2	- 25	- 37	- 42	- 46	- 38	- 51	- 46	- 51	- 49	- 40	- 52	- 54	- 23	+ 11	+ 27	+ 54	+ 52	+ 75	+ 85	+ 89	+ 74	+ 49	+ 29
February	- 23	- 54	- 71	- 68	- 54	- 49	- 59	- 52	- 54	- 61	- 55	- 61	- 45	- 14	+ 42	+ 75	+ 94	+ 116	+ 120	+ 107	+ 98	+ 56	+ 30	- 8
March	- 43	- 51	- 53	- 53	- 54	- 51	- 55	- 35	- 45	- 75	- 96	- 116	- 99	- 62	+ 16	+ 88	+ 157	+ 177	+ 179	+ 138	+ 89	+ 44	+ 23	- 19
April	- 65	- 102	- 113	- 108	- 92	- 77	- 53	- 36	- 38	- 73	- 118	- 149	- 150	- 83	+ 26	+ 100	+ 196	+ 248	+ 235	+ 193	+ 138	+ 90	+ 47	- 9
May	- 50	- 54	- 48	- 34	- 1	+ 7	+ 8	- 12	- 47	- 92	- 152	- 210	- 205	- 114	- 21	+ 66	+ 126	+ 189	+ 196	+ 186	+ 149	+ 91	+ 37	- 4
June	- 47	- 45	- 47	- 26	- 7	- 11	- 7	- 18	- 36	- 74	- 124	- 180	- 169	- 100	- 12	+ 68	+ 118	+ 150	+ 166	+ 151	+ 121	+ 81	+ 42	+ 12
July	- 80	- 107	- 88	- 84	- 61	- 56	- 34	- 11	- 25	- 61	- 103	- 153	- 157	- 101	- 1									

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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, 1951	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
January	- 73	- 25	- 13	+ 11	- 13	- 41	- 47	- 109	- 97	- 47	+ 31	+ 161	+ 237	+ 235	+ 111	+ 65	+ 69	+ 51	+ 53	- 21	- 103	- 175	- 167	- 95
February	- 101	- 73	- 61	- 105	- 113	- 111	- 101	- 119	- 105	- 31	+ 89	+ 159	+ 243	+ 233	+ 139	+ 83	+ 81	+ 91	+ 75	+ 25	- 61	- 75	- 63	- 99
March	- 111	- 91	- 113	- 125	- 145	- 113	- 117	- 189	- 245	- 247	- 83	+ 161	+ 377	+ 417	+ 345	+ 231	+ 125	+ 91	+ 67	+ 13	+ 5	- 31	- 73	- 155
April	- 1	- 111	- 105	- 181	- 237	- 267	- 337	- 409	- 423	- 295	- 89	+ 235	+ 505	+ 587	+ 521	+ 377	+ 273	+ 109	+ 49	+ 57	+ 81	- 55	- 103	- 187
May	- 104	- 112	- 82	- 216	- 404	- 534	- 664	- 646	- 516	- 274	+ 52	+ 454	+ 736	+ 788	+ 720	+ 542	+ 330	+ 150	+ 32	- 48	- 42	- 22	- 44	- 90
June	- 46	+ 44	- 108	- 238	- 376	- 560	- 626	- 630	- 606	- 440	- 112	+ 248	+ 552	+ 656	+ 702	+ 596	+ 488	+ 316	+ 146	+ 68	+ 50	- 6	- 28	- 90
July	- 87	- 235	- 249	- 197	- 263	- 321	- 441	- 483	- 507	- 335	- 169	+ 101	+ 389	+ 563	+ 595	+ 547	+ 465	+ 325	+ 185	+ 85	+ 21	+ 49	+ 11	- 53
August	- 121	- 117	- 169	- 207	- 321	- 421	- 423	- 445	- 463	- 285	- 7	+ 291	+ 627	+ 653	+ 539	+ 429	+ 311	+ 189	+ 117	+ 59	+ 19	- 1	- 75	- 169
September	- 196	- 166	- 178	- 270	- 324	- 410	- 502	- 516	- 388	- 146	+ 250	+ 522	+ 746	+ 748	+ 518	+ 254	+ 94	+ 30	+ 78	+ 60	+ 30	+ 24	- 70	- 180
October	- 151	- 157	- 149	- 117	- 127	- 163	- 191	- 259	- 289	- 199	+ 1	+ 259	+ 395	+ 433	+ 335	+ 227	+ 141	+ 127	+ 117	+ 31	- 3	- 35	- 73	- 147
November	- 151	- 99	- 71	- 43	- 65	- 49	- 51	- 73	- 107	- 107	+ 5	+ 171	+ 275	+ 299	+ 219	+ 183	+ 117	+ 117	+ 103	- 13	- 83	- 119	- 237	- 223
December	- 81	- 49	- 33	- 25	+ 1	- 1	- 25	- 61	- 95	- 117	- 5	+ 129	+ 215	+ 225	+ 161	+ 115	+ 51	+ 53	+ 25	- 25	- 115	- 85	- 163	- 97
Year	- 102	- 99	- 111	- 143	- 199	- 249	- 294	- 328	- 320	- 210	- 3	+ 241	+ 441	+ 486	+ 409	+ 304	+ 212	+ 137	+ 87	+ 24	- 17	- 44	- 90	- 132
Winter	- 102	- 62	- 45	- 41	- 48	- 51	- 56	- 91	- 101	- 76	+ 30	+ 155	+ 243	+ 248	+ 158	+ 112	+ 80	+ 78	+ 64	- 9	- 91	- 114	- 158	- 129
Equinox	- 115	- 131	- 136	- 173	- 208	- 238	- 287	- 343	- 336	- 222	+ 20	+ 294	+ 506	+ 546	+ 430	+ 272	+ 158	+ 89	+ 78	+ 40	+ 28	- 24	- 80	- 167
Summer	- 90	- 105	- 152	- 215	- 341	- 459	- 539	- 551	- 523	- 334	- 59	+ 274	+ 576	+ 665	+ 639	+ 529	+ 399	+ 245	+ 120	+ 41	+ 12	+ 5	- 34	- 101

INCLINATION (Unit 0.'01)

January	+ 32	+ 38	+ 30	- 5	- 23	- 32	- 41	- 34	- 12	+ 28	+ 61	+ 39	- 5	- 31	- 14	- 4	+ 4	- 5	- 14	- 4	+ 6	- 2	- 9	+ 2
February	+ 47	+ 39	+ 41	+ 26	+ 13	- 15	- 30	- 16	+ 3	+ 20	+ 35	+ 21	+ 6	- 3	- 13	- 10	- 4	- 21	- 36	- 31	- 20	- 16	- 9	- 25
March	+ 25	+ 27	+ 17	+ 7	+ 7	- 8	- 17	- 30	- 25	+ 6	+ 26	+ 37	+ 25	+ 29	+ 42	+ 36	+ 42	+ 31	+ 10	- 13	- 26	- 50	- 114	- 80
April	- 33	- 22	+ 6	+ 16	+ 14	+ 6	+ 1	+ 15	+ 39	+ 80	+ 98	+ 63	+ 54	+ 37	+ 24	+ 16	- 1	- 38	- 27	- 48	- 69	- 82	- 85	- 54
May	+ 8	+ 12	+ 4	- 10	+ 5	+ 10	+ 35	+ 88	+ 110	+ 114	+ 88	+ 43	- 6	+ 2	- 31	- 29	- 40	- 40	- 76	- 67	- 61	- 60	- 50	- 50
June	- 31	- 36	- 43	- 28	- 39	- 23	+ 18	+ 73	+ 126	+ 162	+ 162	+ 130	+ 111	+ 90	+ 47	- 13	- 81	- 99	- 118	- 93	- 86	- 99	- 74	- 54
July	- 62	- 40	+ 9	- 16	- 21	- 11	+ 25	+ 60	+ 102	+ 126	+ 128	+ 99	+ 86	+ 49	+ 39	+ 2	- 44	- 85	- 86	- 82	- 83	- 71	- 67	- 61
August	- 28	- 17	- 9	- 13	- 14	- 13	+ 50	+ 92	+ 127	+ 152	+ 146	+ 101	+ 33	+ 44	+ 3	- 35	- 48	- 81	- 85	- 103	- 99	- 81	- 74	- 58
September	- 24	- 46	- 19	- 32	- 14	+ 13	+ 65	+ 139	+ 178	+ 197	+ 155	+ 110	+ 12	- 42	- 49	- 30	- 32	- 39	- 62	- 75	- 91	- 111	- 110	- 97
October	+ 30	+ 29	+ 35	+ 24	+ 11	- 9	- 17	+ 10	+ 41	+ 93	+ 80	+ 41	+ 18	0	- 10	- 26	- 60	- 70	- 72	- 65	- 64	- 51	- 36	
November	+ 39	+ 49	+ 33	+ 15	- 9	- 26	- 41	- 55	- 31	+ 3	+ 31	+ 37	+ 34	+ 20	+ 27	+ 6	+ 1	- 31	- 38	- 29	- 20	+ 5	0	- 22
December	+ 36	+ 40	+ 22	+ 9	- 3	- 36	- 45	- 45	- 29	+ 11	+ 42	+ 36	+ 16	+ 12	+ 8	- 1	- 8	- 17	- 32	- 14	+ 9	- 6	- 4	+ 7
Year	+ 3	+ 6	+ 10	- 1	- 6	- 12	0	+ 25	+ 52	+ 81	+ 89	+ 66	+ 34	+ 19	+ 7	- 6	- 20	- 40	- 53	- 53	- 50	- 53	- 54	- 44
Winter	+ 39	+ 41	+ 31	+ 11	- 5	- 27	- 37	- 35	- 17	+ 15	+ 42	+ 33	+ 13	+ 0	+ 2	- 2	- 2	- 19	- 30	- 19	- 6	- 5	- 5	- 9
Equinox	0	- 3	+ 10	+ 4	+ 4	0	+ 8	+ 33	+ 58	+ 88	+ 93	+ 72	+ 33	+ 10	+ 4	+ 3	- 4	- 26	- 37	- 52	- 63	- 77	- 90	- 67
Summer	- 28	- 20	- 10	- 17	- 17	- 9	+ 32	+ 78	+ 116	+ 138	+ 131	+ 93	+ 56	+ 46	+ 14	- 19	- 53	- 76	- 91	- 86	- 82	- 78	- 66	- 56

HORIZONTAL INTENSITY (Unit 0.1γ)

January	- 47	- 59	- 51	- 3	+ 25	+ 45	+ 57	+ 49	+ 17	- 41	- 87	- 67	- 13	+ 37	+ 21	+ 7	+ 3	+ 17	+ 31	+ 13	+ 3	+ 15	+ 21	+ 1
February	- 67	- 55	- 59	- 41	- 23	+ 23	+ 39	+ 19	- 11	- 35	- 55	- 41	- 23	- 5	+ 23	+ 15	+ 7	+ 37	+ 63	+ 57	+ 43	+ 33	+ 23	+ 37
March	- 31	- 35	- 23	- 11	- 9	+ 17	+ 23	+ 51	+ 37	- 23	- 67	- 95	- 81	- 75	- 65	- 39	- 39	- 23	+ 11	+ 45	+ 59	+ 87	+ 173	+ 109
April	+ 59	+ 33	- 5	- 17	- 7	+ 7	+ 17	+ 1	- 43	- 129	- 187	- 169	- 169	- 113	- 61	- 23	+ 23	+ 91	+ 77	+ 103	+ 133	+ 145	+ 139	+ 83
May	- 3	- 3	+ 7	+ 25	+ 15	+ 5	- 41	- 125	- 179	- 209	- 201	- 163	- 97	- 71	+ 15	+ 49	+ 95	+ 119	+ 173	+ 157	+ 135	+ 117	+ 95	+ 89
June	+ 47	+ 55	+ 57	+ 49	+ 79	+ 59	- 7	- 89	- 179	- 255	- 281	- 273	- 253	- 193	- 99	+ 19	+ 143	+ 181	+ 223	+ 185	+ 163	+ 169	+ 119	+ 81
July	+ 85	+ 41	- 25	+ 27	+ 51	+ 35	- 15	- 67	- 149	- 215	- 247	- 219	- 203	- 127	- 85	- 1	+ 89	+ 165	+ 177	+ 171	+ 167	+ 135	+ 119	+ 99
August	+ 29	+ 17	+ 5	+ 21	+ 35</td																			

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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

International Quiet Days

NORTH COMPONENT (Unit 0.1γ)

Month and Season, 1951	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	
January	- 40	- 56	- 49	- 4	+ 26	+ 48	+ 60	+ 58	+ 25	- 36	- 89	- 80	- 33	+ 16	+ 11	+ 1	- 3	+ 12	+ 26	+ 15	+ 12	+ 30	+ 35	+ 9	
February	- 57	- 48	- 53	- 41	- 13	+ 32	+ 47	+ 29	- 2	- 32	- 62	- 54	- 44	- 25	+ 25	+ 11	+ 8	0	+ 29	+ 56	+ 54	+ 48	+ 39	+ 28	+ 45
March	- 21	- 27	- 13	0	+ 4	+ 27	+ 33	+ 67	+ 58	- 1	- 59	- 108	- 113	- 110	- 94	- 59	- 49	- 31	+ 5	+ 43	+ 58	+ 89	+ 177	+ 121	
April	+ 58	+ 42	+ 4	- 1	+ 14	+ 30	+ 46	+ 36	- 6	- 102	- 177	- 187	- 211	- 162	- 105	- 55	- 1	+ 80	+ 72	+ 97	+ 124	+ 148	+ 146	+ 98	
May	+ 6	+ 7	+ 14	+ 43	+ 50	+ 51	+ 17	- 67	- 132	- 182	- 203	- 200	- 160	- 138	- 48	+ 1	+ 65	+ 104	+ 168	+ 159	+ 137	+ 117	+ 98	+ 96	
June	+ 50	+ 50	+ 66	+ 69	+ 111	+ 107	+ 47	- 33	- 124	- 213	- 268	- 291	- 298	- 247	- 159	- 33	+ 99	+ 151	+ 207	+ 177	+ 157	+ 167	+ 120	+ 88	
July	+ 91	+ 61	- 3	+ 44	+ 73	+ 62	+ 23	- 24	- 103	- 183	- 229	- 225	- 234	- 174	- 136	- 48	+ 47	+ 135	+ 159	+ 161	+ 163	+ 129	+ 116	+ 102	
August	+ 39	+ 27	+ 20	+ 39	+ 62	+ 69	- 20	- 79	- 146	- 213	- 245	- 230	- 168	- 176	- 77	+ 23	+ 73	+ 141	+ 149	+ 181	+ 169	+ 141	+ 128	+ 104	
September	+ 43	+ 74	+ 39	+ 75	+ 54	+ 28	- 43	- 153	- 231	- 297	- 290	- 249	- 122	- 23	+ 28	+ 47	+ 67	+ 78	+ 100	+ 123	+ 145	+ 176	+ 174	+ 160	
October	- 17	- 24	- 32	- 16	+ 7	+ 40	+ 54	+ 19	- 38	- 107	- 174	- 180	- 133	- 89	- 33	+ 4	+ 41	+ 90	+ 104	+ 116	+ 105	+ 104	+ 85	+ 66	
November	- 33	- 56	- 34	- 17	+ 18	+ 43	+ 61	+ 82	+ 44	- 13	- 71	- 91	- 92	- 68	- 58	- 15	+ 3	+ 48	+ 55	+ 51	+ 48	+ 9	+ 31	+ 58	
December	- 41	- 56	- 34	- 17	- 3	+ 46	+ 62	+ 66	+ 45	- 16	- 70	- 73	- 55	- 42	- 17	- 1	+ 20	+ 30	+ 54	+ 33	+ 11	+ 24	+ 25	- 2	
Year	+ 6	0	- 6	+ 14	+ 34	+ 49	+ 32	0	- 51	- 116	- 162	- 164	- 139	- 103	- 56	- 11	+ 30	+ 71	+ 88	+ 101	+ 98	+ 98	+ 97	+ 79	
Winter	- 43	- 54	- 42	- 20	+ 7	+ 42	+ 57	+ 59	+ 28	- 24	- 73	- 74	- 56	- 30	- 13	- 2	+ 5	+ 30	+ 48	+ 38	+ 30	+ 25	+ 30	+ 27	
Equinox	+ 16	+ 16	0	+ 14	+ 20	+ 31	+ 22	- 8	- 54	- 124	- 175	- 181	- 145	- 96	- 51	- 16	+ 14	+ 54	+ 70	+ 95	+ 108	+ 129	+ 145	+ 111	
Summer	+ 46	+ 36	+ 24	+ 49	+ 74	+ 72	+ 17	- 51	- 126	- 198	- 236	- 236	- 215	- 184	- 105	- 14	+ 71	+ 133	+ 171	+ 169	+ 156	+ 136	+ 115	+ 98	

WEST COMPONENT (Unit 0.1γ)

January	- 47	- 23	- 15	+ 5	- 3	- 15	- 16	- 51	- 49	- 32	+ 3	+ 75	+ 125	+ 132	+ 63	+ 36	+ 37	+ 30	+ 33	- 9	- 55	- 91	- 86	- 51
February	- 65	- 48	- 42	- 63	- 64	- 56	- 48	- 61	- 58	- 22	+ 39	+ 79	+ 126	+ 124	+ 78	+ 47	+ 44	+ 55	+ 50	+ 23	- 26	- 35	- 30	- 47
March	- 64	- 54	- 64	- 69	- 79	- 58	- 59	- 93	- 125	- 136	- 55	+ 71	+ 189	+ 211	+ 174	+ 117	+ 61	+ 45	+ 38	+ 14	+ 12	- 3	- 11	- 66
April	+ 9	- 54	- 57	- 100	- 128	- 142	- 178	- 219	- 233	- 179	- 78	+ 99	+ 243	+ 296	+ 269	+ 198	+ 150	+ 73	+ 39	+ 47	+ 65	- 6	- 33	- 87
May	- 56	- 60	- 43	- 112	- 214	- 285	- 362	- 366	- 305	- 180	- 4	+ 217	+ 379	+ 411	+ 388	+ 298	+ 192	+ 99	+ 45	- 1	- 1	+ 7	- 8	- 34
June	- 17	+ 32	- 49	- 120	- 189	- 290	- 336	- 352	- 276	- 105	+ 89	+ 255	+ 320	+ 360	+ 322	+ 284	+ 198	+ 114	+ 66	+ 53	+ 24	+ 4	- 35	
July	- 33	- 119	- 137	- 101	- 133	- 166	- 239	- 269	- 295	- 214	- 130	+ 19	+ 176	+ 281	+ 305	+ 293	+ 263	+ 200	+ 127	+ 73	+ 38	+ 48	+ 25	- 13
August	- 60	- 60	- 90	- 107	- 166	- 220	- 236	- 257	- 278	- 191	- 44	+ 123	+ 317	+ 330	+ 284	+ 239	+ 183	+ 127	+ 88	+ 62	+ 38	+ 22	- 20	- 76
September	- 101	- 79	- 91	- 136	- 169	- 221	- 283	- 308	- 251	- 128	+ 90	+ 247	+ 390	+ 407	+ 289	+ 147	+ 62	+ 29	+ 59	+ 53	+ 40	+ 42	- 10	- 73
October	- 85	- 90	- 87	- 67	- 69	- 83	- 96	- 139	- 165	- 127	- 28	+ 113	+ 196	+ 224	+ 179	+ 125	+ 84	+ 84	+ 81	+ 36	+ 15	- 2	- 26	- 70
November	- 88	- 64	- 45	- 26	- 33	- 20	- 18	- 27	- 52	- 61	- 9	+ 79	+ 136	+ 154	+ 111	+ 98	+ 65	+ 72	+ 66	+ 1	- 38	- 64	- 125	- 113
December	- 51	- 36	- 24	- 16	0	+ 7	- 4	- 23	- 45	- 67	- 14	+ 59	+ 109	+ 86	+ 63	+ 31	+ 34	+ 23	- 8	- 61	- 43	- 86	- 54	
Year	- 55	- 55	- 62	- 76	- 104	- 129	- 156	- 180	- 184	- 134	- 28	+ 106	+ 220	+ 251	+ 215	+ 165	+ 121	+ 87	+ 64	+ 30	+ 7	- 8	- 34	- 60
Winter	- 63	- 43	- 31	- 25	- 25	- 21	- 21	- 40	- 51	- 45	+ 5	+ 73	+ 124	+ 132	+ 84	+ 61	+ 44	+ 48	+ 43	+ 2	- 45	- 58	- 82	- 66
Equinox	- 60	- 69	- 75	- 93	- 111	- 126	- 154	- 190	- 193	- 142	- 18	+ 132	+ 254	+ 285	+ 228	+ 147	+ 89	+ 58	+ 54	+ 37	+ 33	+ 8	- 20	- 74
Summer	- 41	- 52	- 80	- 110	- 175	- 240	- 292	- 311	- 308	- 215	- 71	+ 112	+ 282	+ 335	+ 334	+ 288	+ 230	+ 156	+ 93	+ 50	+ 32	+ 25	0	- 39

VERTICAL COMPONENT (Unit 0.1γ)

January	+ 3	- 13	- 15	- 25	- 21	- 7	- 9	- 3	- 1	+ 3	+ 11	- 19	- 49	- 21	+ 1	+ 3	+ 21	+ 21	+ 23	+ 17	+ 29	+ 27	+ 17	+ 9
February	+ 6	+ 6	+ 4	- 6	- 8	0	- 14	- 10	- 16	- 12	- 8	- 22	- 32	- 22	+ 8	0	+ 2	+ 12	+ 22	+ 24	+ 32	+ 22	+ 22	0
March	+ 14	+ 12	+ 4	- 2	+ 4	+ 12	- 4	+ 16	0	- 34	- 64	- 92	- 100	- 74	- 4	+ 36	+ 56	+ 54	+ 60	+ 58	+ 46	+ 28	+ 8	- 24
April	+ 23	- 1	+ 9	+ 15	+ 33	+ 37	+ 43	+ 55	+ 37	- 23	- 95	- 175	- 205	- 135	- 59	+ 3	+ 49	+ 81	+ 85	+ 73	+ 69	+ 53	+ 29	+ 7
May	+ 21	+ 33	+ 29	+ 23	+ 51	+ 47	+ 25	+ 15	- 35	- 91	- 161	- 229	- 245	- 159	- 73	+ 13	+ 81	+ 137	+ 139	+ 131	+ 101	+ 65	+ 47	+ 35
June	+ 2	+ 4	- 18	+ 18	+ 48	+ 56	+ 46	+ 48	+ 20	- 32	- 90	- 182	- 204	- 136	- 68	0	+ 50	+ 78	+ 110	+ 106	+ 80	+ 50	+ 20	+ 2
July	- 18	- 42	- 28	+ 8	+ 44	+ 44	+ 52	+ 52	+ 6	- 62	- 130	- 164	- 174	- 124	- 62	+ 6	+ 54	+ 90	+ 114	+ 100	+ 66	+ 44	+ 18	
August	- 30	- 18	- 18	+ 2	+ 32	+ 30	+ 42	+ 44	+ 2	- 34	- 7													

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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, 1951	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
January	- 29	- 29	- 191	- 371	- 245	- 19	+ 75	+ 267	+ 207	+ 255	+ 339	+ 347	+ 405	+ 461	+ 309	+ 135	+ 169	+ 9	+ 33	- 151	- 459	- 777	- 411	- 331
February	- 119	- 269	- 265	- 137	+ 3	+ 65	- 15	+ 23	+ 79	+ 59	+ 105	+ 311	+ 359	+ 439	+ 495	+ 219	+ 163	- 117	+ 37	- 245	- 415	- 143	- 355	- 275
March	- 344	- 224	- 256	- 166	- 100	- 78	- 88	- 76	- 130	- 22	+ 194	+ 488	+ 768	+ 780	+ 846	+ 746	+ 444	+ 274	- 404	- 368	- 426	- 606	- 746	- 498
April	- 317	- 187	- 251	- 291	- 161	- 189	- 157	- 357	- 365	- 237	+ 63	+ 481	+ 773	+ 963	+ 793	+ 825	+ 487	+ 145	+ 57	- 249	- 439	- 437	- 585	- 353
May	- 669	- 279	- 359	- 313	- 387	- 415	- 333	- 317	- 223	- 41	+ 293	+ 501	+ 755	+ 921	+ 813	+ 753	+ 723	+ 329	+ 293	- 5	- 233	- 519	- 583	- 697
June	- 47	- 285	- 275	- 203	- 165	- 447	- 465	- 593	- 441	- 335	- 83	+ 239	+ 511	+ 611	+ 721	+ 617	+ 381	+ 225	+ 117	+ 55	- 53	- 91	+ 5	- 3
July	- 35	- 377	- 453	- 255	- 267	- 185	- 169	- 323	- 507	- 377	+ 23	+ 355	+ 549	+ 615	+ 673	+ 587	+ 291	+ 279	+ 151	- 95	- 101	- 171	- 111	- 99
August	- 250	- 50	- 432	- 372	- 82	- 312	- 238	- 240	- 258	- 132	+ 96	+ 442	+ 718	+ 768	+ 706	+ 558	+ 442	- 58	- 192	- 396	- 322	- 80	- 198	- 122
September	+ 21	- 93	- 273	- 251	+ 223	+ 631	+ 431	+ 121	+ 75	+ 79	+ 371	+ 385	+ 493	+ 493	+ 307	+ 339	- 377	- 95	- 737	- 563	- 273	- 617	- 183	- 497
October	- 168	- 204	- 298	- 114	- 36	+ 286	+ 250	+ 100	+ 76	- 4	+ 102	+ 284	+ 566	+ 624	+ 638	+ 556	+ 144	- 360	- 254	- 232	- 624	- 564	- 314	- 464
November	- 254	- 288	- 20	+ 94	+ 12	+ 120	+ 130	+ 96	+ 54	+ 80	+ 144	+ 366	+ 560	+ 554	+ 440	+ 464	+ 246	- 18	- 30	- 250	- 638	- 622	- 666	- 572
December	- 97	+ 105	- 217	+ 61	+ 239	+ 153	+ 137	+ 69	+ 119	+ 189	+ 301	+ 405	+ 373	+ 579	+ 347	+ 303	- 1	- 75	- 637	- 461	- 809	- 545	- 377	- 171
Year	- 192	- 182	- 274	- 193	- 80	- 33	- 37	- 103	- 109	- 41	+ 162	+ 384	+ 569	+ 651	+ 591	+ 508	+ 259	+ 45	- 130	- 247	- 399	- 431	- 377	- 340
Winter	- 125	- 120	- 173	- 88	+ 2	+ 80	+ 82	+ 114	+ 115	+ 146	+ 222	+ 357	+ 424	+ 508	+ 398	+ 280	+ 144	- 50	- 149	- 277	- 580	- 522	- 452	- 337
Equinox	- 202	- 177	- 270	- 206	- 18	+ 163	+ 109	- 53	- 86	- 46	+ 183	+ 410	+ 650	+ 715	+ 646	+ 617	+ 175	- 9	- 335	- 353	- 440	- 556	- 457	- 453
Summer	- 250	- 248	- 380	- 286	- 225	- 340	- 301	- 368	- 357	- 221	+ 82	+ 384	+ 633	+ 729	+ 728	+ 629	+ 459	+ 194	+ 92	- 110	- 177	- 215	- 222	- 230

INCLINATION (Unit 0'.01)

January	- 61	- 98	- 85	- 128	- 120	- 145	- 117	- 84	- 64	- 13	+ 22	- 22	- 6	+ 17	+ 107	+ 113	+ 143	+ 159	+ 147	+ 86	+ 92	+ 6	+ 38	+ 5
February	- 112	- 166	- 36	- 30	- 39	- 158	- 125	- 37	+ 3	+ 15	+ 66	+ 109	+ 149	+ 144	+ 132	+ 116	+ 135	+ 122	+ 10	- 59	- 44	- 46	- 57	- 99
March	- 137	- 102	- 48	- 61	- 130	- 150	- 150	- 96	- 123	- 112	- 36	+ 32	+ 62	+ 51	+ 29	+ 75	+ 177	+ 227	+ 222	+ 187	- 46	+ 77	+ 28	+ 21
April	- 93	- 118	- 115	- 62	- 87	- 144	- 90	- 75	- 43	+ 3	+ 35	+ 122	+ 251	+ 181	+ 118	+ 64	+ 152	+ 67	+ 69	+ 49	- 59	- 55	- 65	- 108
May	- 80	- 107	- 42	- 48	- 66	- 43	+ 8	+ 9	+ 83	+ 127	+ 100	+ 55	+ 57	+ 15	+ 80	- 4	- 4	- 45	- 86	- 16	+ 54	- 45	- 42	+ 38
June	- 99	- 93	- 90	- 52	- 59	- 76	+ 64	+ 81	+ 94	+ 117	+ 163	+ 155	+ 151	+ 131	+ 21	+ 23	+ 6	- 12	- 65	- 67	- 75	- 121	- 107	- 83
July	- 161	- 185	- 203	- 153	- 187	- 46	+ 32	+ 51	+ 94	+ 172	+ 203	+ 149	+ 134	+ 84	+ 102	+ 15	0	- 1	+ 35	+ 25	+ 7	- 12	- 34	- 124
August	- 107	- 179	- 176	- 175	- 128	- 117	+ 6	- 4	+ 131	+ 153	+ 192	+ 172	+ 124	+ 134	+ 133	+ 102	+ 46	+ 28	+ 51	- 19	- 42	- 103	- 118	- 98
September	- 201	- 245	- 260	- 272	- 188	- 180	- 198	- 84	+ 90	+ 359	+ 323	+ 322	+ 220	+ 249	+ 108	+ 171	+ 93	+ 102	+ 9	- 40	+ 49	- 115	- 124	- 187
October	- 164	- 230	- 290	- 295	- 166	- 186	- 164	- 77	+ 63	+ 74	+ 62	+ 72	+ 82	+ 77	+ 45	+ 127	+ 180	+ 185	+ 275	+ 298	+ 119	+ 25	- 24	- 97
November	- 87	- 93	- 78	- 127	- 157	- 124	- 147	- 116	- 89	+ 23	+ 11	- 22	+ 48	+ 158	+ 172	+ 116	+ 141	+ 83	+ 73	+ 133	+ 65	+ 14	+ 59	- 53
December	- 163	- 200	- 200	- 208	- 185	- 286	- 209	- 147	- 102	+ 4	+ 81	+ 138	+ 99	+ 150	+ 188	+ 276	+ 266	+ 219	+ 116	+ 204	+ 28	- 21	+ 14	- 58
Year	- 122	- 151	- 135	- 134	- 126	- 138	- 91	- 48	+ 11	+ 77	+ 102	+ 107	+ 115	+ 116	+ 103	+ 100	+ 111	+ 94	+ 72	+ 65	+ 12	- 33	- 36	- 70
Winter	- 106	- 140	- 100	- 124	- 125	- 179	- 150	- 96	- 64	+ 8	+ 45	+ 51	+ 73	+ 117	+ 150	+ 155	+ 172	+ 145	+ 87	+ 92	+ 35	- 12	+ 13	- 52
Equinox	- 149	- 174	- 178	- 173	- 142	- 165	- 151	- 83	- 4	+ 81	+ 96	+ 137	+ 153	+ 139	+ 75	+ 109	+ 150	+ 146	+ 144	+ 124	+ 16	- 17	- 46	- 93
Summer	- 111	- 141	- 127	- 107	- 109	- 70	+ 27	+ 34	+ 101	+ 142	+ 164	+ 133	+ 117	+ 90	+ 84	+ 34	+ 12	- 7	- 16	- 19	- 14	- 70	- 75	- 66

HORIZONTAL INTENSITY (Unit 0.1γ)

January	+ 86	+ 116	+ 84	+ 152	+ 126	+ 164	+ 106	+ 64	+ 36	- 32	- 74	+ 2	- 8	- 16	- 122	- 104	- 128	- 158	- 138	- 56	- 74	+ 28	- 44	- 2
February	+ 148	+ 174	- 28	- 26	+ 4	+ 178	+ 116	- 14	- 60	- 76	- 144	- 198	- 226	- 186	- 128	- 68	- 92	- 58	+ 80	+ 160	+ 120	+ 96	+ 104	+ 136
March	+ 135	+ 91	+ 25	+ 51	+ 135	+ 163	+ 159	+ 97	+ 135	+ 113	- 11	- 105	- 137	- 79	- 19	- 37	- 129	- 157	- 153	- 159	+ 119	- 115	- 49	- 69
April	+ 107	+ 123	+ 113	+ 51	+ 87	+ 165	+ 85	+ 63	+ 13	- 77	- 135	- 259	- 439	- 285	- 147	- 23	- 89	+ 57	+ 27	+ 39	+ 159	+ 119	+ 119	+ 135
May	+ 42	+ 96	+ 32	+ 62	+ 98	+ 56	- 32	- 56	- 176	- 246	- 218	- 170	- 172	- 60	- 116	+ 56	+ 92	+ 218	+ 284	+ 170	+ 40	+ 106	+ 36	- 144
June	+ 53	+ 79	+ 73	+ 25	+ 43	+ 67	- 125	- 155	- 177	- 225	- 313	-												

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

International Disturbed Days

NORTH COMPONENT (Unit 0.1γ)

Month
and
Season,
1951

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
January	+ 87	+ 117	+ 99	+ 182	+ 146	+ 164	+ 98	+ 40	+ 18	- 54	- 102	- 28	- 43	- 56	- 147	- 114	- 141	- 157	- 139	- 42	- 33	+ 95	- 8	+ 27
February	+ 156	+ 195	- 5	- 14	+ 4	+ 170	+ 116	- 16	- 66	- 80	- 151	- 222	- 254	- 222	- 169	- 86	- 105	- 47	+ 76	+ 179	+ 154	+ 107	+ 133	+ 158
March	+ 163	+ 109	+ 47	+ 65	+ 142	+ 168	+ 165	+ 102	+ 145	+ 113	- 28	- 146	- 202	- 146	- 92	- 101	- 166	- 179	- 116	- 125	+ 154	- 61	+ 16	- 25
April	+ 133	+ 138	+ 133	+ 76	+ 100	+ 179	+ 98	+ 93	+ 45	- 55	- 139	- 297	- 500	- 365	- 214	- 94	- 130	+ 44	+ 22	+ 60	+ 195	+ 155	+ 168	+ 164
May	+ 100	+ 119	+ 63	+ 88	+ 130	+ 91	- 3	- 28	- 154	- 239	- 241	- 211	- 235	- 139	- 185	- 10	+ 28	+ 187	+ 255	+ 168	+ 60	+ 150	+ 86	- 82
June	+ 56	+ 103	+ 96	+ 42	+ 57	+ 105	- 83	- 102	- 136	- 193	- 302	- 324	- 324	- 265	- 68	- 15	+ 68	+ 126	+ 216	+ 202	+ 197	+ 240	+ 176	+ 120
July	+ 106	+ 143	+ 209	+ 97	+ 144	- 43	- 135	- 106	- 126	- 255	- 332	- 283	- 265	- 166	- 151	+ 69	+ 152	+ 169	+ 109	+ 123	+ 115	+ 110	+ 104	+ 210
August	+ 143	+ 193	+ 200	+ 203	+ 115	+ 125	- 32	- 8	- 204	- 260	- 333	- 341	- 300	- 289	- 226	- 115	+ 30	+ 140	+ 114	+ 197	+ 163	+ 188	+ 186	+ 106
September	+ 178	+ 215	+ 278	+ 308	+ 125	+ 76	+ 146	+ 39	- 212	- 597	- 534	- 518	- 333	- 337	- 9	+ 18	+ 232	+ 97	+ 230	+ 171	- 6	+ 217	+ 71	+ 132
October	+ 154	+ 234	+ 319	+ 273	+ 101	+ 138	+ 117	+ 26	- 162	- 153	- 144	- 166	- 202	- 168	- 54	- 89	- 45	+ 78	- 86	- 295	- 73	+ 36	+ 50	+ 120
November	+ 103	+ 84	+ 57	+ 126	+ 186	+ 140	+ 174	+ 136	+ 96	- 76	- 62	- 26	- 132	- 261	- 240	- 137	- 132	- 14	- 19	- 97	+ 18	+ 36	- 43	+ 81
December	+ 198	+ 224	+ 232	+ 222	+ 173	+ 307	+ 189	+ 134	+ 77	- 84	- 178	- 237	- 155	- 226	- 212	- 328	- 270	- 195	- 2	- 171	+ 106	+ 93	+ 19	+ 86
Year	+ 131	+ 156	+ 144	+ 139	+ 118	+ 135	+ 71	+ 26	- 57	- 161	- 212	- 234	- 246	- 220	- 147	- 84	- 40	+ 21	+ 55	+ 31	+ 88	+ 113	+ 80	+ 92
Winter	+ 136	+ 156	+ 96	+ 129	+ 127	+ 195	+ 145	+ 74	+ 31	- 74	- 124	- 129	- 146	- 191	- 192	- 166	- 162	- 103	- 22	- 33	+ 61	+ 83	+ 25	+ 88
Equinox	+ 157	+ 174	+ 194	+ 181	+ 117	+ 140	+ 132	+ 65	- 46	- 173	- 211	- 281	- 309	- 254	- 92	- 66	- 27	+ 10	+ 12	- 47	+ 68	+ 87	+ 76	+ 98
Summer	+ 101	+ 139	+ 142	+ 108	+ 111	+ 69	- 63	- 61	- 156	- 236	- 301	- 290	- 281	- 214	- 157	- 17	+ 70	+ 155	+ 174	+ 172	+ 134	+ 172	+ 138	+ 88

WEST COMPONENT (Unit 0.1γ)

January	- 2	+ 3	- 89	- 174	- 111	+ 16	+ 57	+ 153	+ 117	+ 131	+ 170	+ 186	+ 216	+ 244	+ 146	+ 56	+ 70	- 20	- 4	- 90	- 258	- 412	- 227	- 178
February	- 40	- 116	- 146	- 78	+ 2	+ 63	+ 11	+ 10	+ 33	+ 19	+ 33	+ 135	+ 156	+ 205	+ 245	+ 106	+ 73	- 72	+ 33	- 106	- 203	- 61	- 173	- 125
March	- 163	- 105	- 133	- 81	- 32	- 16	- 22	- 25	- 48	+ 6	+ 102	+ 245	+ 389	+ 405	+ 450	+ 394	+ 217	+ 122	- 241	- 223	- 209	- 343	- 407	- 278
April	- 153	- 80	- 116	- 148	- 72	- 75	- 70	- 181	- 193	- 139	+ 12	+ 216	+ 344	+ 470	+ 401	+ 438	+ 247	+ 87	+ 35	- 127	- 210	- 215	- 294	- 167
May	- 352	- 134	- 187	- 158	- 192	- 213	- 183	- 179	- 148	- 61	+ 122	+ 241	+ 377	+ 484	+ 417	+ 412	+ 402	+ 211	+ 202	+ 25	- 118	- 261	- 307	- 396
June	- 17	- 140	- 136	- 105	- 81	- 229	- 269	- 342	- 264	- 215	- 95	+ 79	+ 228	+ 293	+ 385	+ 337	+ 221	+ 144	+ 99	+ 63	+ 3	- 11	+ 31	+ 18
July	- 2	- 184	- 215	- 124	- 123	- 109	- 115	- 195	- 299	- 249	- 41	+ 149	+ 259	+ 311	+ 345	+ 334	+ 185	+ 181	+ 101	- 32	- 37	- 76	- 44	- 20
August	- 114	+ 4	- 205	- 172	- 26	- 151	- 136	- 133	- 175	- 115	- 1	+ 188	+ 346	+ 375	+ 351	+ 288	+ 248	- 9	- 87	- 186	- 151	- 14	- 79	- 50
September	+ 40	- 16	- 105	- 88	+ 143	+ 359	+ 261	+ 73	+ 7	- 53	+ 117	+ 128	+ 217	+ 216	+ 167	+ 189	- 170	- 36	- 368	- 282	- 151	- 304	- 89	- 252
October	- 67	- 76	- 112	- 19	- 3	+ 180	+ 156	+ 59	+ 16	- 27	+ 33	+ 129	+ 278	+ 316	+ 342	+ 291	+ 72	- 185	- 153	- 175	- 355	- 304	- 164	- 235
November	- 123	- 145	- 2	+ 72	+ 37	+ 89	+ 100	+ 75	+ 45	+ 32	+ 69	+ 197	+ 286	+ 262	+ 203	+ 233	+ 114	- 12	- 20	- 153	- 348	- 336	- 373	- 301
December	- 21	+ 94	- 82	+ 69	+ 159	+ 134	+ 106	+ 60	+ 78	+ 90	+ 137	+ 184	+ 180	+ 282	+ 156	+ 113	- 44	- 73	- 350	- 281	- 427	- 284	- 204	- 80
Year	- 84	- 75	- 127	- 84	- 25	+ 4	- 9	- 52	- 69	- 49	+ 55	+ 173	+ 273	+ 322	+ 301	+ 266	+ 136	+ 28	- 63	- 131	- 205	- 218	- 194	- 172
Winter	- 47	- 41	- 80	- 28	+ 22	+ 76	+ 69	+ 75	+ 68	+ 68	+ 102	+ 175	+ 209	+ 248	+ 188	+ 127	+ 53	- 44	- 85	- 158	- 309	- 273	- 244	- 171
Equinox	- 86	- 69	- 117	- 84	+ 9	+ 112	+ 81	- 19	- 55	- 53	+ 66	+ 180	+ 307	+ 352	+ 341	+ 328	+ 92	- 3	- 181	- 202	- 231	- 291	- 239	- 233
Summer	- 121	- 114	- 186	- 140	- 106	- 176	- 176	- 212	- 221	- 160	- 4	+ 164	+ 302	+ 366	+ 375	+ 343	+ 264	+ 132	+ 79	- 33	- 76	- 90	- 99	- 112

VERTICAL COMPONENT (Unit 0.1γ)

January	- 12	- 72	- 98	- 92	- 122	- 122	- 158	- 144	- 140	- 118	- 96	- 70	- 40	+ 22	+ 86	+ 152	+ 200	+ 184	+ 190	+ 170	+ 148	+ 86	+ 30	+ 12
February	- 43	- 171	- 191	- 165	- 127	- 135	- 163	- 161	- 129	- 125	- 107	- 83	- 9	+ 67	+ 159	+ 245	+ 255	+ 287	+ 221	+ 167	+ 127	+ 63	+ 43	- 27
March	- 162	- 142	- 108	- 94	- 136	- 140	- 154	- 108	- 112	- 126	- 152	- 134	- 102	- 8	+ 58	+ 174	+ 314	+ 422	+ 416	+ 278	+ 118	0	- 16	- 86
April	- 74	- 122	- 136	- 98	- 98	- 116	- 116	- 114	- 120	- 170	- 194	- 178	- 150	- 34	+ 68	+ 168	+ 320	+ 366	+ 304	+ 262	+ 164	+ 86	+ 50	- 62
May	- 179	- 149	- 71	- 23	- 1	- 19	- 47	- 99	- 121	- 131	- 161	- 205	- 201	- 89	+ 9	+ 115	+ 201	+ 351	+ 363	+ 339	+ 281	+ 89	- 61	- 203
June	- 220	- 140	- 142	- 124	- 106	- 108	- 70	- 80	- 86	- 118	- 162	- 176	- 134	- 46	+ 62	+ 172	+ 260	+ 302	+ 308	+ 254	+ 192	+ 126	+ 46	- 6
July	- 317	- 383	- 303	- 355	- 345	- 299																		

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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 0h U.T. and converted into arc at the rate of 15° to each hour.

Month and Season	NORTH COMPONENT								WEST COMPONENT								VERTICAL COMPONENT								
	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	
All Days																									
Jan.	+ 0.5	+3.8	-1.8	+0.1	+0.8	-2.3	-0.3	+0.3	-12.2	-1.8	-0.8	+4.3	-0.7	+1.4	+2.1	+2.3	+2.8	-6.1	-1.5	-1.4	+0.2	-0.4	-0.4	-0.3	-0.3
Feb.	+ 6.9	+2.7	-2.7	-2.1	+2.0	-2.2	0.0	+0.5	-12.6	-4.0	+3.6	+4.5	+0.1	-2.1	+1.0	+1.4	+1.1	-8.8	-3.4	-0.8	+0.6	-0.1	-0.2	-0.2	-0.2
March	+ 9.4	+3.4	-4.0	-3.5	+1.3	-1.9	-0.6	+1.7	-16.3	-7.0	+3.5	+9.6	-1.6	-4.3	+1.0	+1.7	+2.4	-9.9	-6.9	-0.4	+1.8	+1.5	-0.3	-0.3	-0.4
April	+15.3	-1.3	-7.2	-1.4	+2.8	-0.4	+1.1	+0.3	-16.2	-16.1	+4.0	+13.3	-0.7	-4.8	+1.6	+1.0	+2.8	-13.8	-9.2	-2.8	+3.0	+1.2	-0.3	-0.3	-0.7
May	+14.0	-6.1	-8.5	0.0	+0.2	-0.1	+1.4	-0.2	-14.0	-19.8	+7.7	+11.9	-4.1	-2.3	+0.6	+0.7	+6.7	-9.0	-10.9	-1.8	+1.8	+0.2	-1.0	-0.2	
June	+16.7	-6.5	-9.1	-0.9	+0.2	+0.4	-0.4	-0.4	-8.2	-22.5	+5.6	+11.6	-2.1	-2.4	+0.8	+0.1	+5.6	-8.1	-8.7	-1.5	+1.9	+0.2	-1.2	-0.5	
July	+17.2	-7.0	-8.4	+1.6	+0.6	-0.7	+1.5	-0.3	-7.1	-20.8	+4.8	+12.3	-2.6	-3.5	+0.8	-0.4	+3.5	-11.4	-9.3	-3.7	+2.0	+0.8	-1.0	-0.7	
August	+18.8	-5.5	-6.8	+1.1	-1.8	-2.5	+0.7	0.0	-11.5	-15.0	+8.4	+10.5	-3.8	-3.1	+0.9	+0.3	+2.3	-10.5	-9.3	-1.8	+2.3	+1.4	-0.3	-0.3	
Sept.	+16.2	-3.3	-6.8	+4.8	0.0	-4.4	+0.1	+0.5	-15.6	-9.3	+6.6	+8.0	-3.6	-5.6	+2.6	+0.5	-5.3	-17.5	-9.2	-0.8	+2.9	+0.1	-1.2	-1.5	
Oct.	+11.5	+2.8	-5.7	-0.4	+2.0	-2.1	+0.1	+0.1	-13.7	-5.0	+1.8	+10.8	-2.6	-3.1	+2.4	+2.6	-0.8	-11.2	-7.2	-0.7	+2.1	+1.2	0.0	-0.5	
Nov.	+ 5.1	+5.9	-3.2	-3.6	+0.4	-0.7	+1.3	-0.1	-15.0	-1.8	-2.3	+7.0	-0.4	-0.8	+1.8	+0.4	+0.8	-8.6	-3.6	-0.3	+0.8	-0.6	-0.3	-0.2	
Dec.	+ 5.6	+5.2	-3.7	-2.9	+1.7	-2.3	+0.5	+0.6	-11.8	+2.5	-0.4	+6.9	-1.1	-1.1	+0.7	+1.3	+0.1	-9.1	-2.6	-0.1	+0.1	-0.1	-0.5	0.0	
Year	+11.4	-0.5	-5.7	-0.6	+0.9	-1.6	+0.4	+0.2	-12.8	-10.1	+3.7	+9.2	-1.9	-2.6	+1.4	+1.0	+1.8	-10.3	-6.8	-1.4	+1.6	+0.5	-0.5	-0.5	
Winter Equinox	+ 4.5	+4.4	-2.8	-2.1	+1.2	-1.9	+0.4	+0.3	-12.9	-1.3	0.0	+5.6	-0.5	-0.7	+1.4	+1.4	+1.2	-8.2	-2.8	-0.7	+0.4	-0.3	-0.4	-0.2	
Summer	+13.1	+0.4	-6.0	-0.1	+1.6	-2.2	-0.1	+0.7	-15.4	-9.3	+4.0	+10.4	-2.1	-4.4	+1.9	+1.5	-0.2	-13.1	-8.1	-1.2	+2.4	+1.0	-0.4	-0.8	
Year	+ 9.0	-2.0	-5.9	-0.5	+1.0	-1.7	+0.4	+0.2	-7.3	-12.7	+4.6	+7.5	-3.4	-2.3	+1.1	+1.3	+4.2	-2.4	-4.8	-0.9	+1.6	-0.1	-0.7	-0.3	
Winter Equinox	+ 1.6	+0.6	-4.1	-1.3	+1.3	-1.8	+0.4	+0.7	-6.0	-2.8	+0.4	+4.0	-2.1	-0.3	+1.7	+1.4	+1.5	-2.2	-0.8	-0.4	+0.6	-0.1	-0.4	-0.2	
Summer	+10.4	-1.8	-4.6	-0.6	+1.5	-2.3	-0.2	+0.4	-8.0	-12.8	+5.7	+6.9	-4.8	-3.5	+1.2	+1.9	+4.1	-2.2	-5.1	-0.6	+2.1	-0.3	-1.0	-0.2	
Year	+14.9	-5.1	-9.2	+0.5	+0.3	-0.8	+1.2	-0.4	-7.9	-22.4	+7.6	+11.7	-3.3	-3.1	+0.5	+0.4	+7.0	-2.7	-8.5	-1.8	+2.1	+0.4	-0.7	-0.4	
INTERNATIONAL QUIET DAYS																									
Year	+13.3	+7.8	-3.3	-3.1	-0.3	-2.1	+1.4	+0.9	-17.5	+3.7	+1.7	+7.6	+1.8	-1.6	+3.0	+1.3	-2.7	-19.1	-4.9	+1.4	+0.8	0.0	-0.1	-0.6	
Winter Equinox	+18.0	+1.9	-7.2	+1.3	+4.0	-2.1	-1.4	-0.6	-20.8	-2.7	+2.5	+12.7	-0.7	-7.7	+2.4	+0.6	-7.4	-32.2	-14.2	+1.5	+3.6	+3.7	+0.5	-2.5	
Summer	+20.2	-9.4	-9.2	+0.8	+0.3	0.0	-0.3	-1.4	-15.8	-17.5	+4.5	+12.4	-1.4	-4.2	+1.8	-0.3	-0.9	-22.6	-13.1	-3.1	+1.0	+2.1	-0.8	-0.8	
INTERNATIONAL DISTURBED DAYS																									
Year	+17.2	+0.1	-6.6	-0.3	+1.3	-1.3	-0.1	-0.3	-18.0	-5.5	+2.9	+10.9	+0.3	-4.5	+2.4	+0.6	-3.7	-24.6	-10.7	-0.1	+1.7	+2.0	-0.1	-1.3	
Winter Equinox	+13.3	+7.8	-3.3	-3.1	-0.3	-2.1	+1.4	+0.9	-17.5	+3.7	+1.7	+7.6	+1.8	-1.6	+3.0	+1.3	-2.7	-19.1	-4.9	+1.4	+0.8	0.0	-0.1	-0.6	
Summer	+18.0	+1.9	-7.2	+1.3	+4.0	-2.1	-1.4	-0.6	-20.8	-2.7	+2.5	+12.7	-0.7	-7.7	+2.4	+0.6	-7.4	-32.2	-14.2	+1.5	+3.6	+3.7	+0.5	-2.5	

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

Values of c_n , a_n in the series $\Sigma c_n \sin (nT + a_n)$, 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 α , 2α , 3α , 4α respectively, where α 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	α_1	c_2	α_2	c_3	α_3	c_4	α_4	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4	c_1	α_1	c_2	α_2	c_3	α_3	c_4	α_4	
All Days																									
Jan.	3.8	8	1.8	274	2.4	162	0.4	317	12.3	262	4.4	350	1.6	335	3.1	44	6.7	156	2.1	228	0.4	155	0.5	235	0.5
Feb.	7.4	69	3.4	233	3.0	139	0.5	2	13.2	253	5.8	39	2.1	178	1.7	37	8.9	173	3.5	258	0.6	101	0.3	227	0.3
March	10.0	70	5.3	230	2.3	147	1.8	342	17.7	247	10.2	21	4.6	202	2.0	32	10.2	167	6.9	267	2.3	51	0.5	218	0.5
April	15.4	95	7.3	260	2.8	99	0.3	20	22.8	226	13.9	17	4.9	189	1.9	60	14.1	169	9.6	254	3.2	69	0.8	205	0.8
May	15.3	114	8.5	271	0.2	118	1.4																		

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 35

TABLE X. - RANGE OF MEAN DIURNAL INEQUALITIES FOR THE MONTHS, YEAR AND SEASONS OF 1951

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
January	6.78	1.14	11.8	4.12	1.02	14.4	12.38	3.04	32.2	13.0	34.1	14.3	14.9	22.3	7.8	33.9	65.6	35.8
February	6.64	1.26	17.3	3.62	0.83	13.0	9.10	3.15	40.4	20.8	33.8	19.1	11.8	19.1	6.4	44.9	44.8	47.8
March	9.65	1.55	20.0	6.64	1.56	26.8	15.92	3.77	32.2	24.9	49.5	29.5	29.0	34.7	16.0	37.0	85.7	58.4
April	11.47	1.86	32.2	10.10	1.83	33.2	15.48	3.95	60.4	38.7	60.0	39.8	35.9	52.9	29.0	69.5	76.4	56.0
May	12.69	1.84	39.8	14.52	1.90	38.2	16.18	2.34	53.0	39.2	67.6	40.6	37.1	77.7	38.4	49.6	88.0	56.8
June	11.69	2.23	45.1	13.32	2.80	50.4	13.14	2.84	54.8	45.8	63.4	34.6	50.5	71.3	31.4	56.4	72.7	52.8
July	11.19	2.54	47.2	11.02	2.14	42.4	11.80	4.06	53.8	44.6	63.6	37.3	39.7	60.0	28.8	54.1	64.4	83.6
August	10.86	2.62	44.5	11.16	2.55	43.8	12.00	3.71	52.0	45.7	58.2	34.8	42.6	60.8	24.2	54.4	58.0	64.4
September	9.73	3.10	41.9	12.64	3.08	49.4	13.68	6.31	88.8	44.1	50.9	48.9	47.3	71.5	16.6	90.5	72.7	123.2
October	8.96	1.84	28.4	7.22	1.65	29.6	12.62	5.91	61.6	31.3	45.6	30.6	29.6	38.9	12.8	61.4	69.7	115.6
November	7.28	1.89	20.7	5.36	1.04	15.4	12.26	3.29	40.6	23.3	37.4	18.4	17.4	27.9	9.4	44.7	65.9	43.2
December	7.33	1.76	21.7	3.88	0.87	12.4	13.88	5.62	63.0	22.9	37.8	18.4	13.9	20.3	6.4	63.5	70.9	53.6
Year	9.52	1.97	30.9	8.63	1.77	30.8	13.20	4.00	52.7	32.7	50.2	30.5	30.8	46.4	18.9	55.0	69.6	65.9
Winter	7.01	1.51	17.9	4.24	0.94	13.8	11.90	3.78	44.0	20.0	35.8	17.6	14.5	22.4	7.5	46.8	61.8	45.1
Equinox	9.95	2.09	30.6	9.15	2.03	34.8	14.42	4.99	60.8	34.8	51.5	37.2	35.4	49.5	18.6	64.6	76.1	88.3
Summer	11.61	2.31	44.2	12.50	2.35	43.7	13.28	3.24	53.4	43.8	63.2	36.8	42.5	67.4	30.7	53.6	70.8	64.4

TABLE XI. - NON-CYCCLIC CHANGE (24^h minus 0^h)

Month 1951	All Days			Quiet Days			Disturbed Days		
	Declination West	Horizontal Intensity	Vertical Intensity	Declination West	Horizontal Intensity	Vertical Intensity	Declination West	Horizontal Intensity	Vertical Intensity
January	-0.13	-1.0	+0.5	+0.16	+1.0	-0.2	-1.22	-6.6	-1.2
February	+0.06	+1.3	-0.4	+0.88	+7.8	-1.8	-1.56	-8.0	+0.8
March	+0.06	+0.5	0.0	-0.16	+11.4	-4.0	-2.14	-17.2	+3.6
April	-0.02	+0.7	-0.1	-1.20	+2.8	-3.0	+1.70	-4.4	-7.6
May	-0.02	+0.1	+0.1	-0.14	+6.2	-0.6	+0.90	-21.8	-2.6
June	-0.06	-0.5	+0.1	-0.44	+2.8	-2.2	-0.46	-6.2	+3.0
July	-0.12	0.0	-0.1	-0.02	+1.8	0.0	-0.46	-3.2	+17.0
August	+0.03	+0.1	+0.1	-0.40	+5.0	+1.6	+1.38	-9.6	-7.8
September	+0.01	+0.1	+0.5	+0.60	+4.8	+1.6	-4.40	-19.8	-33.0
October	+0.01	-0.5	+0.1	+0.66	+9.2	-4.0	-2.06	-11.2	+1.4
November	-0.00	+0.2	-0.1	-0.34	+5.2	-2.2	-2.46	-4.0	-3.6
December	-0.01	+0.1	0.0	+0.18	+3.2	-1.8	+0.94	-13.4	+6.4
Year	..	..	..	-0.02	+5.1	-1.4	-0.82	-10.5	-2.0

TABLE XII. - MEAN MONTHLY AND ANNUAL VALUES OF GEOMAGNETIC ELEMENTS

Month 1951	Declination West	Inclination	Intensity					
			Horizontal	North	West	Vertical	Total	
January	9 15.9	66 42.3	.18642	.18398	.03001	.43297	.47140	
February	9 15.0	66 42.6	.18638	.18396	.02996	.43299	.47140	
March	9 14.6	66 42.4	.18641	.18399	.02994	.43298	.47141	
April	9 13.7	66 42.3	.18642	.18401	.02990	.43298	.47141	
May	9 12.8	66 41.8	.18651	.18410	.02986	.43300	.47146	
June	9 12.8	66 41.2	.18659	.18419	.02987	.43299	.47149	
July	9 11.9	66 41.4	.18658	.18418	.02983	.43302	.47150	
August	9 11.2	66 41.8	.18653	.18413	.02978	.43303	.47150	
September	9 10.2	66 42.8	.18640	.18402	.02971	.43311	.47152	
October	9 10.0	66 42.7	.18644	.18406	.02970	.43316	.47158	
November	9 9.4	66 42.3	.18650	.18412	.02968	.43317	.47161	
December	9 8.8	66 42.1	.18653	.18416	.02965	.43316	.47161	
Year	9 12.2	66 42.1	.18648	.18408	.02982	.43305	.47149	

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE XIII. - DAILY MEAN VALUE OF THE BASE-LINE OF THE DECLINATION MAGNETOGRAMS

Day	January	February	March	April	May	June	July	August	September	October	November	December
1	8 49.5	8 49.6	8 49.6	8 49.8	8 49.8	8 50.0	8 50.1	8 50.0	8 50.0	8 50.2	8 50.5	8 50.4
2	49.6	49.6	49.6	49.8	50.0	50.0	50.1	50.0	50.0	50.2	50.5	50.5
3	49.6	49.6	49.7	49.8	50.0	50.0	50.0	50.1	50.0	50.2	50.5	50.3
4	49.5	49.6	49.7	49.8	50.0	49.9	50.1	50.1	50.0	50.1	50.5	50.3
5	49.5	49.6	49.7	49.8	50.0	49.9	50.0	50.1	50.0	50.1	50.5	50.3
6	49.6	49.6	49.7	49.8	50.0	50.1	49.9	50.0	50.0	50.1	50.4	50.3
7	49.5	49.6	49.7	49.8	50.1	50.0	50.0	50.0	50.0	50.3	50.5	50.4
8	49.7	49.6	49.7	49.9	50.1	50.0	50.0	50.0	50.0	50.2	50.5	50.3
9	49.5	49.5	49.7	49.8	50.0	50.0	50.0	50.0	50.0	50.2	50.6	50.3
10	49.6	49.7	49.7	49.8	49.9	50.0	50.0	50.0	50.0	50.2	50.5	50.2
11	49.6	49.6	49.7	49.8	50.0	50.0	50.0	50.0	50.0	50.1	50.4	50.3
12	49.6	49.6	49.6	49.8	50.1	50.0	50.0	50.0	50.0	50.2	50.5	50.3
13	49.6	49.7	49.7	49.8	50.0	49.9	50.0	50.0	50.0	50.1	50.5	50.4
14	49.6	49.6	49.7	49.8	50.1	50.0	50.1	50.0	49.9	50.1	50.6	50.4
15	49.6	49.6	49.6	49.7	50.0	50.1	50.1	50.0	50.1	50.3	50.4	50.4
16	49.6	49.7	49.7	49.8	50.0	50.1	50.1	50.1	50.0	50.2	50.5	50.3
17	49.5	49.6	49.7	49.8	50.0	50.0	50.1	50.0	50.0	50.2	50.5	50.3
18	49.4	49.7	49.6	49.8	50.1	50.0	50.0	50.0	50.0	50.3	50.5	50.3
19	49.6	49.6	49.7	49.8	50.0	50.1	50.0	50.0	50.0	50.4	50.3	50.3
20	49.5	49.6	49.7	49.8	49.9	50.1	50.1	50.0	49.9	50.4	50.4	50.3
21	49.5	49.7	49.7	49.9	50.1	50.2	50.0	50.0	50.1	50.5	50.4	50.3
22	49.5	49.6	49.7	49.8	50.0	50.1	50.0	50.1	50.2	50.5	50.4	50.3
23	49.6	49.6	49.8	49.9	50.0	50.1	50.0	50.0	50.2	50.6	50.4	50.3
24	49.5	49.6	49.7	50.1	50.0	50.1	50.1	50.0	50.2	50.6	50.4	50.3
25	49.5	49.6	49.9	50.0	50.0	50.2	50.1	50.1	50.2	50.5	50.4	50.3
26	49.5	49.7	49.9	50.0	50.0	50.1	50.0	50.0	50.2	50.5	50.4	50.3
27	49.5	49.7	49.9	50.1	49.9	50.1	50.0	50.0	50.2	50.5	50.4	50.2
28	49.6	49.6	49.9	49.9	49.9	50.1	50.0	50.0	50.2	50.4	50.4	50.3
29	49.7		49.8	50.0	50.0	50.1	50.0	50.0	50.2	50.5	50.3	50.3
30	49.6		49.8	49.7	50.0	50.0	50.0	50.0	50.2	50.6	50.3	50.2
31	49.5		49.7		50.1		50.0	50.0		50.6		50.2

June 5. Recording-Room Temperature raised from 16°0 C to 21°0 C.

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 37

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	10	22	-	10	33	8	18664	18483	Mar.	14	10	10	-	10	18	8	18612	18480	May	30	9	26	-	9	34	8	18633	18479
	2	10	19	-	10	28	8	18648	18483		15	9	51	-	10	01	8	18631	18481		31	9	21	-	9	30	8	18648	18482
	3	10	25	-	10	38	8	18647	18483		16	9	55	-	10	07	8	18631	18481										
	4	10	15	-	10	25	8	18645	18483		17	10	17	-	10	27	8	18596	18480										
	5	10	19	-	10	28	8	18647	18483		19	10	6	-	10	18	8	18634	18481										
	6	10	24	-	10	33	8	18639	18482		20	9	57	-	10	10	8	18647	18482										
	8	10	15	-	10	25	8	18650	18483		21	10	27	-	10	37	8	18650	18481										
	9	10	13	-	10	22	8	18642	18482		22	10	10	-	10	21	8	18648	18481										
	10	9	54	-	10	3	8	18644	18482		24	10	15	-	10	26	8	18625	18481										
	11	10	18	-	10	28	8	18642	18482		27	10	11	-	10	22	8	18621	18481										
	13	10	8	-	10	19	8	18634	18482		28	10	20	-	10	29	8	18626	18481										
	15	10	23	-	10	32	8	18645	18483		29	10	22	-	10	31	8	18621	18481										
	16	10	32	-	10	40	8	18631	18483		30	10	23	-	10	32	8	18632	18482										
	17	10	17	-	10	26	8	18632	18482		31	10	04	-	10	14	8	18637	18481										
	18	10	2	-	10	13	8	18640	18481																				
	19	10	12	-	10	25	8	18649	18483																				
	20	10	17	-	10	28	8	18637	18482	Apr.	2	10	11	-	10	18	8	18642	18480	June	1	9	24	-	9	36	8	18665	18481
	22	10	17	-	10	26	8	18622	18482		3	10	19	-	10	28	8	18607	18481										
	23	10	8	-	10	16	8	18609	18482		4	10	21	-	10	32	8	18606	18481										
	24	10	20	-	10	28	8	18634	18482		5	10	19	-	10	30	8	18585	18480										
	25	10	6	-	10	14	8	18632	18482		6	10	20	-	10	30	8	18600	18480										
	26	10	10	-	10	19	8	18648	18482		7	10	9	-	10	18	8	18614	18480										
	27	10	9	-	10	21	8	18641	18482		9	10	13	-	10	25	8	18609	18480										
	29	10	25	-	10	35	8	18637	18481		10	10	15	-	10	24	8	18612	18481										
	30	9	57	-	10	8	8	18650	18482		11	10	30	-	10	39	8	18627	18481										
	31	9	50	-	10	2	8	18583	18480		12	10	11	-	10	23	8	18623	18480										
											13	10	19	-	10	30	8	18628	18480										
											14	10	7	-	10	18	8	18608	18480										
Feb.	1	10	16	-	10	25	8	18604	18482		16	9	31	-	9	40	8	18637	18481										
	2	10	22	-	10	32	8	18635	18482		17	9	15	-	9	24	8	18638	18481										
	3	10	23	-	10	32	8	18635	18481		19	9	21	-	9	29	8	18627	18482										
	5	10	8	-	10	20	8	18659	18481		20	11	8	-	11	16	8	18626	18482										
	6	10	26	-	10	35	8	18593	18480		21	9	4	-	9	13	8	18613	18482										
	7	10	27	-	10	37	8	18624	18481		23	9	16	-	9	27	8	18619	18481										
	8	10	10	-	10	19	8	18630	18481		24	9	26	-	9	35	8	18620	18481										
	9	12	40	-	12	50	8	18622	18482		25	9	24	-	9	33	8	18602	18481										
	10	10	34	-	10	43	8	18629	18481		26	9	29	-	9	39	8	18615	18481										
	12	10	23	-	10	32	8	18631	18481		27	9	20	-	9	31	8	18647	18483										
	13	10	26	-	10	36	8	18635	18481		28	9	10	-	9	20	8	18659	18481										
	14	10	33	-	10	41	8	18634	18481		30	9	34	-	9	45	8	18647	18482										
	15	9	58	-	10	8	8	18645	18482																				
	16	10	32	-	10	41	8	18644	18481																				
	17	10	14	-	10	24	8	18637	18482	May	1	9	19	-	9	28	8	18605	18480	July	2	8	32	-	8	47	8	18631	18479
	19	10	29	-	10	39	8	18631	18482		2	9	31	-	9	40	8	18581	18479										
	20	10	17	-	10	28	8	18638	18482		3	9	17	-	9	26	8	18614	18481										
	21	10	21	-	10	32	8	18642	18482		4	9	07	-	9	16	8	18607	18481										
	22	10	14	-	10	26	8	18631	18482		5	9	09	-	9	27	8	18627	18481										
	23	10	20	-	10	34	8	18632	18482		7	9	19	-	9	32	4	18620	18480										
	24	10	1																										

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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.	9	9	31	-	9	42	8	18622	18476	Sept.	26	9	06	-	9	20	8	18594	18475	Nov.	9	11	38	-	11	51	8	18653	18475
	10	9	25	-	9	36	8	18639	18476		27	8	36	-	8	46	8	18631	18475		10	10	22	-	10	31	8	18666	18477
	11	9	33	-	9	42	8	18665	18479		28	9	09	-	9	18	8	18632	18477		12	10	35	-	10	42	8	18636	18475
	13	9	19	-	9	30	8	18642	18477		29	8	56	-	9	06	8	18651	18477		13	10	30	-	10	38	8	18625	18473
	14	9	27	-	9	36	8	18634	18477												14	12	20	-	12	32	8	18621	18473
	16	8	50	-	9	02	8	18586	18477												15	10	36	-	10	47	8	18602	18474
	17	9	25	-	9	33	8	18635	18476												16	11	27	-	11	44	8	18630	18473
	18	9	30	-	9	40	8	18633	18477												17	10	16	-	10	24	8	18660	18474
	20	9	32	-	9	43	8	18630	18477		1	9	21	-	9	31	8	18637	18476		19	10	32	-	10	41	8	18654	18475
	21	9	35	-	9	45	8	18609	18476		2	9	16	-	9	25	8	18632	18475		20	10	26	-	10	34	8	18656	18474
	22	9	31	-	9	41	8	18579	18475		3	9	29	-	9	38	8	18625	18475		21	10	34	-	10	42	8	18664	18475
	23	9	18	-	9	28	8	18628	18477		4	9	16	-	9	26	8	18628	18476		22	10	33	-	10	41	8	18674	18475
	24	9	22	-	9	33	8	18615	18475		5	14	58	-	15	09	8	18667	18477		23	10	26	-	10	34	8	18652	18475
	25	9	36	-	9	46	8	18620	18476		6	9	28	-	9	37	8	18636	18476		24	10	24	-	10	32	8	18650	18476
	27	9	27	-	9	40	8	18636	18476		8	10	51	-	11	02	8	18617	18476		26	10	31	-	10	39	8	18658	18476
	28	9	32	-	9	43	8	18632	18476		9	10	34	-	10	44	8	18622	18474		27	10	19	-	10	34	8	18651	18475
	29	9	22	-	9	35	8	18623	18475		10	9	34	-	9	43	8	18636	18476		28	10	33	-	10	40	8	18675	18475
	30	9	24	-	9	35	8	18634	18475		11	9	12	-	9	25	8	18626	18476		29	10	40	-	10	49	8	18660	18475
	31	9	31	-	9	43	8	18642	18476		12	9	33	-	9	43	8	18647	18476		30	10	25	-	10	33	8	18647	18474
											13	9	21	-	9	31	8	18644	18476										
											15	10	17	-	10	28	8	18625	18475										
											16	8	43	-	8	52	8	18633	18476										
											17	8	59	-	9	10	8	18595	18475										
	Sept.	1	9	35	-	9	45	8	18621	18476	18	8	58	-	9	07	8	18582	18474	Dec.	1	10	24	-	10	31	8	18641	18475
		3	9	30	-	9	39	8	18631	18476	19	9	27	-	9	38	8	18631	18475	3	11	30	-	11	38	8	18646	18475	
		4	9	22	-	9	31	8	18622	18476	20	9	28	-	9	36	8	18631	18475	4	10	31	-	10	40	8	18664	18475	
		5	9	32	-	9	40	8	18624	18477	22	10	29	-	10	38	8	18627	18476	5	9	31	-	9	43	8	18651	18475	
		6	9	14	-	9	22	8	18632	18477	23	10	28	-	10	39	8	18633	18476	6	10	15	-	10	24	8	18660	18475	
		7	9	14	-	9	24	8	18640	18477	24	11	38	-	11	49	8	18649	18476	7	10	27	-	10	39	8	18656	18475	
		8	9	21	-	9	31	8	18618	18475	25	11	31	-	11	46	8	18649	18476	8	10	28	-	10	37	8	18640	18475	
		10	9	28	-	9	37	8	18624	18477	26	11	39	-	11	51	8	18645	18476	11	10	29	-	10	38	8	18645	18475	
		11	8	55	-	9	07	8	18645	18477	27	11	27	-	11	42	8	18643	18476	13	10	06	-	10	18	8	18648	18474	
		12	8	56	-	9	07	8	18599	18475	29	10	30	-	10	38	8	18597	18475	14	9	57	-	10	13	8	18658	18475	
		13	9	34	-	9	46	8	18632	18476	31	11	33	-	11	42	8	18626	18475	15	9	30	-	9	46	8	18655	18475	
		14	9	19	-	9	33	8	18607	18476										17	10	07	-	10	22	8	18669	18474	
		15	8	59	-	9	12	8	18620	18476										18	10	10	-	10	25	8	18648	18475	
		17	9	00	-	9	12	8	18583	18476										19	12	23	-	12	35	8	18661	18475	
		18	9	10	-	9	23	8	18628	18477	2	10	16	-	10	27	8	18645	18476	20	9	50	-	10	07	8	18642	18474	
		19	9	20	-	9	33	7	18646	18476	3	10	26	-	10	37	8	18648	18476	21	12	22	-	12	37	8	18659	18474	
		21	9	25	-	9	33	8	18511	18474	5	10	27	-	10	36	8	18645	18475	22	11	40	-	11	54	8	18626	18474	
		22	9	35	-	9	44	5	18618	18475	6	10	30	-	10	40	8	18619	18475	27	10	16	-	10	27	8	18683	18476	
		24	9	27	-	9	37	8	18632	18475	7	10	15	-	10	32	8	18623	18475	28	10	30	-	10	41	8	18578	18473	
		25	8																										

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 39

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	10	02	-	10	16	8	43292	43048	Mar.	14	10	30	-	10	50	8	43298	43052	May	29	8	54	-	9	14	8	43290	43049
	2	9	58	-	10	16	8	43295	43050		15	10	13	-	10	38	8	43302	43050		30	8	53	-	9	20	8	43292	43052
	3	9	55	-	10	19	8	43298	43050		16	10	14	-	10	38	8	43289	43050		31	8	51	-	9	16	8	43291	43051
	4	9	51	-	10	08	8	43295	43049		19	9	45	-	10	02	8	43294	43050										
	5	9	58	-	10	15	8	43296	43050		20	10	20	-	10	45	8	43291	43051										
	6	9	58	-	10	18	8	43300	43051		21	9	54	-	10	21	8	43286	43051										
	8	9	46	-	10	10	8	43290	43051		22	9	44	-	10	04	8	43284	43050										
	9	9	54	-	10	8	8	43293	43051		24	9	48	-	10	12	8	43300	43052										
	10	9	29	-	9	49	8	43292	43051		27	9	43	-	10	07	8	43289	43052										
	11	10	00	-	10	13	8	43297	43050		28	9	50	-	10	16	8	43301	43050										
	13	9	41	-	10	00	8	43296	43050		29	9	59	-	10	19	8	43282	43050										
	15	9	53	-	10	19	8	43294	43051		30	9	55	-	10	19	8	43279	43049										
	16	10	3	-	10	28	8	43297	43051		31	9	40	-	9	58	8	43296	43049										
	17	9	55	-	10	12	8	43297	43052												11	9	00	-	9	23	8	43288	43049
	18	9	31	-	9	53	8	43295	43053												12	8	50	-	9	10	8	43295	43051
	19	9	46	-	10	6	8	43287	43050												13	8	50	-	9	04	8	43303	43049
	20	9	53	-	10	13	8	43293	43050												14	8	56	-	9	17	8	43289	43050
	22	9	47	-	10	11	8	43291	43050		2	9	53	-	10	5	8	43286	43049										
	23	9	49	-	10	3	8	43293	43049		3	9	56	-	10	15	8	43280	43050										
	24	9	55	-	10	16	8	43292	43050		4	9	52	-	10	16	8	43287	43050										
	25	9	44	-	10	01	8	43292	43048		5	9	51	-	10	14	8	43280	43049										
	26	9	50	-	10	06	8	43282	43048		6	9	47	-	10	16	8	43273	43049										
	27	9	49	-	10	04	8	43297	43052		7	9	46	-	10	05	8	43288	43051										
	29	9	59	-	10	19	8	43298	43050		8	9	54	-	10	08	8	43287	43050										
	30	9	33	-	9	51	6	43294	43051		10	10	00	-	10	28	8	43283	43049										
	31	10	13	-	10	28	8	43274	43049		11	9	35	-	9	58	8	43292	43049										
											12	9	52	-	10	16	8	43275	43048										
											13	9	40	-	10	02	8	43294	43049										
											14	9	09	-	9	27	8	43302	43050										
											15	8	51	-	9	09	8	43287	43050										
Feb.	1	9	52	-	10	10	8	43296	43048		17	8	51	-	9	09	8	43287	43050										
	2	10	02	-	10	19	8	43305	43052		18	8	35	-	8	51	8	43284	43050										
	3	10	02	-	10	21	8	43297	43049		19	9	04	-	9	17	8	43290	43049										
	5	9	46	-	10	04	8	43293	43049		20	10	45	-	11	03	8	43286	43048										
	6	10	07	-	10	23	8	43302	43049		21	8	35	-	8	57	8	43287	43047										
	7	10	06	-	10	23	8	43293	43049		23	8	55	-	9	13	8	43300	43048										
	8	9	46	-	10	06	8	43301	43050		24	8	52	-	9	13	8	43295	43047										
	9	10	08	-	10	34	8	43291	43048		25	8	55	-	9	19	8	43301	43047										
	10	10	14	-	10	31	8	43294	43050		26	9	04	-	9	23	8	43306	43047										
	12	10	02	-	10	20	8	43291	43049		27	8	53	-	9	14	8	43296	43048										
	13	10	06	-	10	22	8	43298	43050		28	8	42	-	9	02	8	43298	43048										
	14	10	08	-	10	29	8	43299	43051		30	9	10	-	9	30	8	43292	43050										
	15	9	39	-	9	56	8	43293	43049												27	8	56	-	9	11	8	43294	43051
	16	10	11	-	10	28	8	43300	43051												28	8	51	-	9	18	8	43306	43049
	17	9	53	-	10	10	8	43290	43051												29	8	48	-	9	21	8	43288	43051
	19	9	49	-	10	24	8	43284	43049												30	8	55	-	9	11	8	43295	43052
	20	9	48	-	10	12	8	43294	43050																				
	21	9	58	-	10	18	8	43290	43050																				
	22	9	47	-	10	10	8	43273	43048																				
	23	9	50	-	10	14	8	43282	43049																				
	24	9	47	-	10	06	8	43294	43051																				
	26	9	56	-	10	37	8	43287	43051																				
	27	9	49	-	10	10	8	43288	4																				

MAGNETIC OBSERVATIONS, ABINGER, 1951.

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. 25		9 02 -	9 29	8	43299	43049	Oct.	1	8 55 -	9 17	8	43310	43051	Nov.	6	9 57 -	10 25	8	43312	43046	
27		8 51 -	9 20	8	43305	43050		2	8 53 -	9 13	8	43308	43050		7	9 24 -	10 03	8	43315	43050	
28		9 01 -	9 27	8	43310	43051		3	8 56 -	9 26	8	43308	43051		8	9 11 -	9 36	8	43318	43052	
29		8 53 -	9 17	8	43310	43050		4	8 54 -	9 11	8	43310	43050		9	10 05 -	10 40	8	43302	43040	
30		8 58 -	9 18	8	43307	43050		5	9 24 -	9 41	8	43312	43049		10	9 45 -	10 17	8	43307	43046	
31		8 50 -	9 21	8	43293	43049		6	8 56 -	9 24	8	43310	43052		12	9 58 -	10 26	10	43320	43054	
								8	9 16 -	9 38	8	43321	43051		13	9 57 -	10 26	8	43313	43048	
								9	9 19 -	9 35	8	43319	43052		14	10 24 -	10 39	8	43312	43043	
Sept. 1		8 56 -	9 29	8	43295	43049		10	9 14 -	9 31	8	43307	43048		15	10 05 -	10 32	8	43309	43050	
3		9 06 -	9 26	8	43300	43051		11	8 36 -	8 59	8	43314	43051		16	10 12 -	10 34	8	43314	43050	
4		8 58 -	9 18	8	43297	43053		12	9 12 -	9 29	8	43313	43049		17	9 55 -	10 12	8	43308	43052	
5		9 07 -	9 29	8	43299	43051		13	8 57 -	9 15	8	43303	43052		19	10 03 -	10 29	8	43304	43044	
6		8 49 -	9 11	8	43301	43052		15	9 8 -	9 26	6	43314	43050		20	9 57 -	10 23	8	43308	43047	
7		8 47 -	9 10	8	43304	43050		16	8 20 -	8 40	8	43310	43050		21	10 00 -	10 31	8	43312	43053	
8		9 00 -	9 18	8	43297	43051		17	8 30 -	8 47	8	43304	43051		22	9 57 -	10 30	10	43297	43043	
10		9 04 -	9 24	8	43297	43051		18	8 32 -	8 53	8	43315	43050		23	9 58 -	10 24	8	43306	43045	
11		8 23 -	8 45	8	43307	43053		19	9 06 -	9 24	8	43313	43051		24	9 51 -	10 20	8	43311	43045	
12		8 29 -	8 47	8	43308	43051		20	9 08 -	9 25	8	43314	43051		26	10 10 -	10 26	8	43313	43050	
13		8 52 -	9 19	8	43299	43052		22	9 59 -	10 25	8	43303	43049		27	9 53 -	10 13	8	43316	43053	
14		8 32 -	9 05	8	43309	43053		23	9 57 -	10 23	8	43302	43049		28	10 07 -	10 30	8	43300	43042	
15		8 25 -	8 55	8	43305	43052		24	10 12 -	10 33	8	43300	43049		29	10 13 -	10 35	8	43312	43051	
17		8 19 -	8 47	8	43315	43053		25	10 08 -	10 31	8	43302	43049		30	9 50 -	10 11	8	43309	43052	
18		8 18 -	8 47	8	43309	43051		26	10 13 -	10 48	8	43291	43049								
19		8 37 -	9 06	8	43298	43050		27	10 11 -	10 35	8	43301	43049								
20		8 41 -	9 09	8	43295	43050		29	9 57 -	10 26	6	43332	43048								
21		9 02 -	9 22	8	43303	43051		30	15 58 -	16 14	8	43333	43048		Dec.	1	9 59 -	10 21	8	43305	43051
22		8 54 -	9 14	8	43305	43052		31	9 57 -	10 44	8	43314	43049			3	10 06 -	10 36	8	43306	43043
24		8 54 -	9 21	8	43314	43051									4	10 00 -	10 26	8	43312	43052	
25		8 22 -	8 50	8	43313	43051									5	10 00 -	10 24	8	43312	43052	
26		8 39 -	9 01	8	43330	43051	Nov.	1	9 31 -	10 11	8	43313	43050			6	9 51 -	10 09	8	43301	43046
27		8 56 -	9 19	8	43314	43051		2	9 50 -	10 10	8	43301	43049			7	9 56 -	10 23	8	43312	43052
28		8 51 -	9 06	8	43317	43051		3	9 59 -	10 22	8	43304	43049			8	10 03 -	10 24	8	43309	43053
29		8 36 -	8 50	8	43313	43051		5	10 07 -	10 23	8	43318	43051			11	10 00 -	10 25	8	43314	43053

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 41

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 43044	Y 43042	-	-	-	-	-	-	Y 43049	Y 43053	-	Y 43045
2	43046	43049	-	43045	-	-	-	-	-	43044	43044	-
3	43042	43044	-	43044	43045	-	-	-	43051	43046	43046	43045
4	43046	-	-	-	-	-	-	-	43051	-	-	43045
5	43043	43044	-	43045	-	-	-	-	43045	-	43047	43046
6	43046	43046	-	43044	-	-	-	-	43048	43048	43048	43044
7	-	43045	-	43041	43050	-	-	-	43051	-	-	43037
8	43045	43044	-	-	43047	-	-	-	43049	-	43045	43048
9	43042	43045	-	43044	43044	-	-	-	-	43050	43046	-
10	43042	-	-	43041	-	-	-	-	43050	-	43045	-
11	43045	-	-	43043	43046	-	-	-	43049	-	-	43043
12	-	43043	-	-	-	-	-	-	43040	-	43047	-
13	-	43043	-	43045	-	-	-	-	-	-	43048	43045
14	-	43042	43047	43043	-	-	-	-	-	-	43048	43045
15	43043	43045	43044	-	-	-	-	-	-	43046	43045	-
16	43047	43042	43047	-	-	-	-	-	-	43049	43047	-
17	43042	43046	43047	43044	-	-	-	-	-	-	43045	-
18	43043	-	-	43043	-	-	-	-	-	43052	-	43046
19	-	43047	43045	43041	-	-	-	-	-	-	43045	43045
20	43044	43047	-	43041	-	-	-	-	-	43051	43044	-
21	-	-	43045	-	-	-	-	-	-	-	43045	43044
22	43043	-	43044	-	-	-	-	-	-	43052	43046	43045
23	43045	-	-	-	-	-	-	-	-	43045	43045	-
24	43044	-	43046	-	-	-	-	-	-	43048	43047	-
25	43044	-	-	-	-	-	-	-	-	43046	-	-
26	43042	-	-	-	-	-	-	-	43048	43049	43047	-
27	43045	-	43048	-	-	-	-	-	-	43050	43043	43046
28	-	-	43046	-	-	-	-	-	43052	-	43042	-
29	43045	-	43043	-	-	-	-	-	43044	43050	-	43047
30	-	-	43040	-	-	-	-	-	-	-	43041	-
31	-	-	-	-	-	-	-	-	-	43048	-	-

MAGNETIC OBSERVATIONS, ABINGER, 1951.

TABLE XV(B). - OBSERVATIONS OF VERTICAL INTENSITY MADE WITH THE BMZ 35 AS AN
ADDITIONAL CHECK UPON THE STABILITY OF THE Z-VARIOMETER BASE-LINE VALUES

Universal Time		Number of Observations	Observed Vertical Intensity	Deduced Value of Base-line	Universal Time		Number of Observations	Observed Vertical Intensity	Deduced Value of Base-line					
		h m	h m	Y		h m	h m	Y	Y					
Feb. 13	9 43	-	9 55	10	43316	43067	July 27	8 47	-	9 02	10	43319	43071	
	14	9 47	-	9 58	10	43315	43067	28	8 38	-	8 46	10	43315	43071
June 6	8 49	-	8 59	10	43318	43067	Oct. 16	15 15	-	15 28	10	43347	43071	
	7	8 48	-	8 59	10	43321	43067	13	9 31	-	9 44	10	43330	43067
	8	8 48	-	8 56	10	43304	43067	14	9 54	-	10 02	10	43337	43066
July 5	8 55	-	9 12	10	43323	43071	Nov. 13	9 44	-	9 52	10	43330	43066	
	6	8 53	-	9 05	10	43324	43070	16	9 44	-	9 52	10	43330	43066
	9	8 51	-	9 02	10	43317	43073	14	16 18	-	16 27	10	43332	43065
	10	8 54	-	9 04	10	43324	43073	17	12 25	-	12 36	10	43332	43070
	11	8 52	-	9 03	10	43328	43074	18	14 45	-	14 58	10	43337	43068
	12	8 58	-	9 05	10	43317	43073	19	10 23	-	10 34	10	43336	43068
	13	8 54	-	9 02	10	43312	43072	21	10 15	-	10 31	10	43328	43068
	14	8 45	-	8 54	10	43317	43071	22	10 16	-	10 27	10	43337	43068
	16	8 58	-	9 06	10	43324	43073	27	12 39	-	12 46	10	43322	43067
	17	8 56	-	9 07	10	43318	43071	28	10 14	-	10 22	10	43336	43068
18	8 51	-	9 02	10	43322	43073	Dec. 14	10 06	-	10 15	10	43339	43067	
	19	8 53	-	9 01	10	43320	43071	29	10 13	-	10 21	10	43331	43068
	20	8 36	-	8 44	10	43315	43071	31	10 18	-	10 27	10	43332	43065
	25	8 49	-	8 58	10	43319	43071	17	12 25	-	12 36	10	43332	43070

MAGNETIC OBSERVATIONS, ABINGER, 1951.

D 43

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	0.4368	67 1.2
1860	21 14.3	..	..	68 30.1	1904	16 15.0	0.1854	0.4359	66 57.6
1861	21 5.5	0.1773	..	68 24.6	1905	16 9.9	0.1854	0.4355	66 56.3
					1906	16 3.6	0.1854	0.4353	66 55.6
1861	..	0.1759	..	68 15.8	1907	15 59.8	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 56.5	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	0.1803	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 1925-1951

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
1941	10 33.8	0.18539	0.43128	66 44.3
1942	10 24.8	0.18554	0.43146	66 43.9
1943	10 16.2	0.18556	0.43172	66 44.5
1944	10 7.8	0.18566	0.43189	66 44.3
1945	9 59.5	0.18573	0.43207	66 44.3
1946	9 51.1	0.18569	0.43235	66 45.4
1947	9 43.1	0.18577	0.43246	66 45.2
1948	9 35.4	0.18593	0.43255	66 44.4
1949	9 27.5	0.18607	0.43273	66 44.0
1950	9 19.7	0.18628	0.43288	66 43.0
1951	9 12.2	0.18648	0.43305	66 42.1

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 -1.7γ in H and -3.9γ in Z were introduced in 1938. See Introduction pp. x and xi.

January. Limited activity was recorded on 2^d, the largest movement in the form of a polar bay occurring between 19^h and 20^h, (H +70γ, D 12' E). By the following day conditions had become fairly quiet, and continued so until 10^d, the only significant movement in the traces during this period being a double easterly bay in D at 5d21^h and 5d22^h of about 10'. A fall in the value of H occurring between 10d16^h and 18^h marked the beginning of a revival of activity which continued on a moderate scale for several days. Amongst the most outstanding movements was a westerly movement in D of 12' (PSC with pulsations) between 11d0h53^m and 1h4^m followed by a recovery between 1h59^m and 1h40^m. The initial movement was accompanied by a pulsating increase in H of 30γ. An easterly PSC with pulsations, of 9', was recorded in D between 11d22h5^m and 22h20^m with an accompanying positive bay in H. A movement of similar character occurred in H (+50γ) between 16d21h21^m and 21h28^m, accompanied by an easterly bay in D, these movements occurring during a period of increased activity which was followed next day by a quiet spell. Minor movements were recorded during the night hours of 18^d to 19^d and on a more pronounced scale during the following night, when an easterly movement in D between 19d21^h and 21h44^m of 12' was followed by an unsteady recovery which continued until about 20d3^h. A further quiet spell terminated with a slow fall in the value of H and an accompanying rise in Z beginning about 21d14^h. This marked the commencement of a further spell of activity. Noteworthy was an easterly bay in D (17') occurring between 21d21^h and 22^h and a similar movement on a larger scale between 22d20^h and 22^h (25'). The latter was accompanied by a positive bay in H of +70γ. This spell of activity, which continued until the end of 23^d, has been classified as being of storm intensity. Between 26d18^h and 27d1^h a shallow positive bay in Z (+40γ) was accompanied by a similar negative bay in H (-50γ) while for some ten hours or so, commencing at 26d18^h the D trace exhibited an irregular oscillatory movement with period very roughly one hour. The month ended with a further outbreak of activity which continued throughout 31^d and showed a noteworthy sequence of oscillations in D, of the order of 10' double amplitude, between 3^h and 9^h.

Ranges for the month: D, from 8°47'.2 to 9°28'.8 both on 22^d; H, from .18558 on 22^d to .18703 on 2^d; Z, from .43248 on 31^d to .43346 on 26^d.

February. Little of note occurred upon the traces until following the appearance of agitation in the morning of 5^d which later developed into large movements in the elements. Outstanding amongst these was a positive peak in H, with maximum (+80γ) at 6d0h5^m and of overall duration about 30 minutes. This was accompanied between 5d23h56^m and 6d0h14^m by a westerly movement in D of 13'. A second sharp increase in H (+90γ) occurred between 0h50^m and 1h10^m, an irregular recovery being made during the following two hours. Between 1h20^m and 2h30^m there was an easterly swing in D of 24' at a time when Z had reached a minimum value. By 6^h the traces exhibited only small scale agitation. A drop in the value of H between 8d15^h and 16^h marked the commencement of several hours of fairly sharp activity. H rose +60γ from 17h20^m to a peak at 17h31^m and again +100γ from 18h30^m to a peak at 39^m. These movements were preceded by easterly peaks in D at 17h24^m and 18h34^m respectively, while the second was further accompanied by an increase in Z of 27γ between 18h34^m and 38^m, followed by a drop of 40γ during the subsequent 20 minutes. Disturbance continued for several days, though this was limited mainly to the night hours in accordance with the diurnal tendency. Of the more outstanding movements were a rise in H of 100γ from 10d22h5^m to a maximum at 22h32^m with recovery during the following hour. This was accompanied by an easterly peak (15') in D at 22d21^h and a similar small movement (+15γ) in Z. Following an irregular slow rise H dropped 90γ between 11d23h46^m and 12d0h18^m. Between 12d17h52^m and 18h28^m the D trace swung 22' easterly to a sharp maximum, from which it recovered during the next 70 minutes. At 12d23h1^m H rose sharply by 50γ (PSC) to a maximum at 23h14^m from which it recovered during the following 45 minutes. From 15^d to 20^d the traces continued comparatively featureless, but agitation appearing during the morning of 21^d slowly developed into activity of storm intensity which extended from 22^d to 24^d. Peak values in H, representing fluctuations of the order of 100γ, occurred at 22d21h7^m, 23d18h59^m, 23d19h53^m, 23d22h40^m and 23d23h15^m with a comparable minimum at 24d16h47^m. Outstanding easterly peaks of similar magnitude occurred in D at 22d19h42^m, 23d18h43^m, 23d20h37^m and 24d17h6^m. From 24d4^h to 11^h D was subject to an oscillatory movement similar to that described following January 26d18^h. On 25^d between 21^h and 22^h there was a positive bay in H (60γ) with small accompanying movements in D and Z. On 27^d, following a period of some hours of minor disturbance there occurred at 0h27^m a sudden commencement (H +67γ, D 6'W, Z +10γ). Between 1h55^m and 2h37^m H fell steadily by 135γ to a sharp minimum from which it rose suddenly by 40γ in about four minutes. Following the SC, D swung from its most westerly value at 0h46^m to an extreme easterly value at 2h36^m through 32'. By 2h40^m it had returned by 6' and continued to move westward through another 12' during the next 30 minutes. This sharp movement of sudden commencement

NOTES ON MAGNETIC ACTIVITY

type at 2^h36^m was accompanied by a similar movement in Z (+14γ). Following these movements the character of the traces changed entirely from occasional large movements to small and rapid oscillations. This agitation became very marked in H during the latter half of 27^d and again from about 28^d4^h, when it also became very pronounced in D. At 28^d14^h17^m there occurred a characteristic SC-type movement in all elements which, in H consisted of an initial drop of 16γ, followed immediately by a sharp increase of 59γ, the whole movement occupying about three minutes of time. The spell of marked activity terminated with the month.

Ranges for the month: D, from 8°53'7 on 12^d to 9°35'0 on 28^d; H, from .18549 on 24^d to .18745 on 22^d; Z, from .43227 on 27^d to .43361 on 8^d.

March. Small isolated bays occurred in H about 2^d23^{1/2}h (+30γ) and 4^d22^{1/2}h (+40γ) and in D at 3^d6^h (6'W), but otherwise the traces remained practically featureless until the appearance of unsteadiness about 6^d3^h marked the beginning of a period of disturbance which continued on a varying scale for about ten days. The build up of activity was gradual. Movements were slow during 6^d but became sharper during the afternoon of 7^d. This scale of activity was practically continuous, with many movements in the H trace of 50γ or more with corresponding movements in D. A period of reduced activity during the earlier hours of 13^d was followed in the evening by an outburst of increased intensity. From 14^d2^h the traces became quieter, though considerable agitation was apparent from midday onwards, with a complex peak in H of over 100γ at 20^h3^m. This was accompanied by a depression in Z (-40γ) with minimum about 20^h35^m. The period 15^d to 21^d was characterized by intermittent small scale agitation of the traces with occasional small bays. About 21^d20^h activity showed an increase and became marked during the evening of 22^d. This was accompanied by a rise in Z to a peak (+80γ) at 17^h15^m and a steady recovery during the next seven hours. A rapid rise in the value of H (+95γ) from 23^h25^m to a sharp peak at 23^h45^m was notable. A similar movement was recorded in H on 24^d between 19^h and 20^h, activity during the intervening period having been maintained at a moderate level. From 25^d movements became more subdued, with a slight revival of activity during the evening of 26^d. 28^d was nearly quiet, but between 29^d3^h and 4^h irregularities began to show in the traces. These were followed by limited disturbance which continued into the early hours of the following morning, when the traces again became relatively quiet.

Ranges for the month: D, from 8°50'2 on 13^d to 9°30'6 on 7^d and 29^d; H, from .18533 to .18718 both on 13^d; Z, from .43254 on 14^d to .43404 on 13^d.

April. At 1^d18^h small irregularities began to appear in the traces. These became more pronounced on the following day and rose to storm intensity during the period 2^d to 5^d. The movements in general were not excessively large, but the traces throughout this period were characterized by a state of continuous rapid fluctuation. This became subsequently less marked, but conditions remained generally disturbed until about 14^d when activity abated. Irregularities, however, continued during the next four days until 18^d6^h52^{1/2}^m when a sudden commencement, most marked in D (8'E), was followed by a spell of considerable activity which lasted until about 19^d2^h. There followed a lull, but about midday on 20^d increased activity began to show in H and D, accompanied by a rise in Z characteristic of disturbed conditions. The more outstanding movements consisted mainly of bays lasting from 20 minutes to one hour. Activity continued from 21^d until 23^d6^h on a reduced scale, followed by a lull lasting until 24^d4^h, when a revival of the disturbance appeared which lasted until the early hours of 26^d. The remaining four days of the month were made up of intermittent periods of calm and low activity. Taken as a whole the month was one of considerable activity.

Ranges for the month: D, from 8°49'0 on 20^d to 9°36'6 on 18^d; H, from .18464 on 18^d to .18723 on 12^d; Z, from .43241 on 5^d to .43382 on 20^d.

May. The month opened with an increase of activity which rose to storm intensity during the night hours of 1^d to 2^d. Particularly noteworthy was an easterly increase in D of 27' which took place in three stages between 21^h0^m and 34^m. D remained large, attaining a maximum at midnight after

which it fell during the following 70 minutes by 37' to its normal value. Activity was subdued during the following morning but increased again in the evening becoming again marked between 19^h and 22^h when there occurred four peak values in H accompanying oscillations of the order of 100γ. Similar movements appeared in D. Considerable unsteadiness continued until 5^d with outstanding bays in H and D on 3^d between 18^h and 19^h and again at midnight. Conditions from 5^d to 8^d were fairly quiet, with some irregularities in the traces on 6^d, but disturbance set in on the evening of 9^d. A very sharp peak (PSC) in H occurred at 22^h 53^m (+220γ). During daylight hours of 10^d and 11^d the traces became very agitated, though apart from two negative bays in H between 10^d 14^h and 16^h (100γ), upon which were superposed rapid oscillations, movements were not large. Bays occurred between 16^h and 19^h on 12^d, but otherwise the traces for 12^d and 13^d were featureless. A renewal of minor activity appeared on 14^d and continued on a fairly uniform scale with no features of outstanding interest until 18^d when conditions gradually became more quiet. From 20^d to 22^d the traces were practically calm but on 23^d a renewal of activity set in. An easterly bay in D (17') centred on 23^d 21^h was noteworthy. Minor disturbance continued throughout 24^d, and to a lesser degree during 25^d, though at 25^d 18^h 47^m there occurred a well-defined SC in H (+32γ). Following this, disturbance continued on a very moderate scale until 26^d 15^h after which a minor storm was recorded. This was short-lived and by 27^d 5^h relative calm had been restored. This was maintained until 29^d when irregularities began to appear in the traces. An isolated bay in D (8'E) centred on 29^d 23^h was notable, but apart from this no further feature of note was recorded in May.

Ranges for the month: D, from 8°37'.4 on 1^d to 9°30'.9 on 26^d; H, from .18511 on 1^d to .18855 on 9^d; Z, from .43228 to .43368 both on 2^d.

June. Considerable small-scale activity consisting of short period oscillations was recorded during the first two days of the month. During the evening of 2^d a series of small bays occurred after which conditions remained fairly quiet until the afternoon of 4^d, when the traces again became somewhat irregular. Two well-defined negative bays (-60γ and -80γ) occurred in H between 6^d 6^h and 8^h and a general depression of H was shown between 10^h and 16^h on the same day. Well-defined maximum values occurred in H on 8^d near 16^h and on 9^d at 15^h. An easterly movement of 11' in D between 9^d 2^h 40^m and 3^h 10^m followed a slower westerly movement. The period 9^d 17^h to 10^d 9^h was practically quiet after which the traces were subject to irregularities and occasional small bays until about 14^d 0^h. Conditions then became again quiet until the occurrence of a large sudden commencement (H +80γ) at 14^d 17^h 51^m 4. The activity, of which this was the onset was not intense, but slightly disturbed conditions persisted for about two days. By 18^d this had disappeared but was renewed on a larger scale with a second large sudden commencement (H +80γ) at 17^d 17^h 01^m 9. This storm lasted about 24 hours during which a notable depression in Z occurred at 18^d 0^h with a subsequent rapid recovery. Conditions were again quiet from 18^d 19^h until 18^d 23^h 14^m 4 when a third sudden commencement (H +40γ) marked the onset of renewed activity. This however was on a very limited scale, though a significant bay occurred in H (+100γ) near 19^d 16^h. During the period 20^d to 24^d the traces showed only minor irregularities, but on 25^d 4^h 29^m 1 a sudden commencement (H +19γ) marked the onset of a further period of limited activity. This was most pronounced during the afternoon of the same day, the largest single movement being an increase in H of 115γ between 13^h 20^m and 50^m. By midnight the movements had died down to mere irregularities in the traces, and these conditions prevailed throughout the remainder of the month. The single outstanding feature during this period was a sharp positive bay in H (+75γ) centred on 27^d 16^h 12^m.

Ranges for the month: D, from 8°53'.5 on 18^d to 9°29'.2 on 25^d; H, from .18543 on 18^d to .18763 on 17^d; Z, from .43144 on 18^d to .43365 on 25^d.

July. A small bay at 1^d 1^h (H +35γ) was followed by a more conspicuous one occurring between 17^h 48^m and 18^h 40^m, (H +75γ, D 11'E). At 22^h 26^m 9 there occurred a sudden commencement (H +66γ) which was followed by a drop in Z of over 200γ occurring during the succeeding three hours. There was an irregular recovery of Z during the following seven hours. This depression of Z was accompanied by activity in H and D of storm intensity, though the large movements had died out by 2d7h. Considerable agitation, with many small sharp bays, was recorded during the following days. By 6^d this had to a large extent subsided though the traces continued to reveal some agitation on a much reduced scale. Throughout the following week the traces showed little variation from a state of minor activity, the most conspicuous movement during this interval being an elongated bay in H

NOTES ON MAGNETIC ACTIVITY

(+50γ) between 9d17h26m and 18h45m. At 15d15 $\frac{1}{2}$ h activity became more pronounced, and between 14h and 18h on the following day there appeared several fluctuations in H of the order of 50γ. Conditions were moderately disturbed throughout 17d and 18d, there being a conspicuous bay in H (+80γ) near 18d15h. By 19d0h this activity had subsided, little of interest appearing in the traces until about 22d3h when there was a revival of activity. This was in no way spectacular, however, though some oscillations of about 40 minutes period occurring in H between 15h and 19h are of interest. From 23d3h conditions were quiet, or nearly so until midday on 25d when movements became more pronounced and the traces assumed a more agitated appearance. These conditions prevailed, in a varying degree, throughout the remainder of the month. Of the more significant features occurring during this period should be mentioned a broad bay in H (+50γ) between 26d23h10m and 27d1h10m; a bay in D (15'W) with a sharp minimum at 28d3h10m; several abrupt oscillations in H of 2 or 3 minutes period around 15h and 16h on 28d, of double amplitude up to 45γ; a large positive swing in Z during the afternoon and evening of 31d accompanied by a period of increased activity in D and H which terminated with a positive bay in the latter (+80γ) between 23h and midnight.

Ranges for the month: D, from 8°51'.6 to 9°28'.4 both on 2d; H, from .18517 on 2d to .18735 on 1d; Z, from .43109 on 2d to .43409 on 31d.

August. After a quiet spell during the morning of 1d activity became brisk following an abrupt rise in H of 25γ at 15h41m. An SC-type movement occurred at 17h19m (H +55γ), this being the most striking of several sharp movements about this time. The largest single movement of this storm occurred in H (-140γ) between 23h0m and 53m. By 2d6h conditions had returned to normal and throughout the next ten days the records exhibited no more than minor activity with small bays up to about 50γ in H. Signs of increasing disturbance appeared with abrupt movements (SC) in H (+20γ) and Z at 13d3h37m, but this was short-lived terminating with two sharp bays in H of about +100γ each between 18h and 19 $\frac{1}{2}$ h, these being accompanied by similar positive, or easterly bays in D. At 15d20h10m there occurred a typical SC (H +79γ) which was followed by a temporary increase in the value of H lasting about two hours, but by no marked increase in the general level of activity. Between 16d7h30m and 50m there occurred a striking series of oscillations (pulsation) with period about 30 seconds and with varying double amplitude in H up to 28γ. A similar pulsation, though less marked, occurred during the preceding hour. Between 8h and 12h there occurred a double negative bay in H (70γ). Small scale fluctuations were maintained throughout the following day but by 18d conditions had become quiet. Small movements reappeared on 19d and at 20d1h there appeared a polar bay (H +30γ, D 11'W) which marked the beginning of a period of increasing activity. Between 15h and 23h H oscillated with a period of roughly one hour, the largest bay occurring between 21h and 22h (+60γ). A double easterly bay occurred in D (10' to 15') between 19h and 22h and a westerly bay (16') between 21d1h and 2h. This was accompanied by a negative bay in Z (30γ) centred on 2h. Activity remained subdued during the morning hours of 21d but became intensified from midday until about 22d5h, during which a number of sharp bays were recorded. The two largest, of about +100γ, were recorded in H between 21h and 22h with corresponding westerly bays (10' and 12') in D. The traces throughout the remainder of the month were characterized by minor disturbance of varying degree including some outstanding bays of which the following were the most noteworthy:- at 23d23h, H +110γ, D 20'E; between 25d19h and 20h, H +90γ, D 15'E; between 26d19h and 20h, H +60γ, and between 22h and midnight H +70γ; at 27d21h, H +70γ, D 16'E; at 28d21h, H +50γ, D 9'E; at 31d23h, H +40γ.

Ranges for the month: D, from 8°53'.7 on 23d and 27d to 9°22'.9 on 1d; H, from .18570 on 26d to .18765 on 1d; Z, from .43246 to .43392 both on 21d.

September. The month opened quietly with only occasional small bays appearing in the traces. At 5d20h45m, however, there was an SC which showed in all three elements (H +56γ) and was followed immediately by a slight, but limited, increase of activity. At 7d20h there occurred an easterly bay in D (9') on an otherwise quiet trace. Activity increased noticeably at midday on 9d, when, in the course of six minutes, the H trace rose by 30γ and subsequently performed a rough oscillation forming a series of shallow bays of from a half to one hour duration. From 21h the D trace exhibited similar movements. During the night hours of 10d to 11d conditions became fairly quiet, apart from a bay between 1h and 2h (H +30γ, D 6'W) but activity was resumed about 10h. Between

$11^d 18^h 21^m$ and $19^h 30^m$ D moved easterly by $14'$, while three sharp maxima E occurred at $21^h 37^m$, $22^h 9^m$ and $22^h 35^m$, these being each succeeded by maxima in H at $21^h 43^m (+120\gamma)$, $22^h 13^m (+40\gamma)$ and $22^h 43^m (+90\gamma)$. This disturbance was accompanied by a drop of 70γ in Z between $21^h 20^m$ and $22^h 0^m$. A similar movement in Z (-50γ) was associated with the latter part of a complete oscillation in D occurring between $12^d 22^h 50^m$ and $13^d 0^h 20^m$ and having a double amplitude of $23'$, while a third (-55γ) accompanied large double swings in D ($23'$) and H (90γ) centred near $13^d 23^h$. From $16^d 8^h 30^m$ H dropped away to a sharp minimum at $9^h 34^m$. The movements in the traces subsequently recorded on this day appear in an accompanying plate. On 17^d at 22^h a double peak was recorded in H ($+100\gamma$) and on 18^d there occurred an easterly bay in D ($22'$) with maximum excursion at $18^h 5^m$ and extending over the interval from $17^h 30^m$ to $19^h 0^m$. A quiet spell during the early morning hours of 19^d was followed at $11^h 54^m 4$ by a sudden commencement (H $+28\gamma$) which marked the beginning of a prolonged storm. Activity became less marked during 23^d , 24^d and the first half of 25^d though there were notable bays at $23^d 21^h$ in H ($+110\gamma$) and D ($20'E$). Following noon on 25^d activity became brisk with some notably large movements in Z. The storm was of short duration ending fairly abruptly between $26^d 5^h$ and 6^h . Activity remained subdued until $27^d 0^h 5^m$ when a sudden commencement marked the beginning of a period of considerable agitation in the traces. At $7^h 28^m$ abrupt, SC-like movements appeared in all three elements; H -60γ , D $14'E$, Z -18γ . The latter part of 27^d exhibited no features of special interest and apart from a small easterly bay between 0^h and 1^h conditions on 28^d were fairly quiet. A short revival of moderate activity occurred during the latter half of 29^d with bays in H ($+70\gamma$) and D ($15'E$) coinciding with a well-marked maximum in Z about 17^h . 30^d was relatively quiet. The month was one of very considerable activity.

Ranges for the month: D, from $8^{\circ} 16'.6$ on 26^d to $9^{\circ} 59'.5$ on 25^d ; H, from .18322 on 26^d to .18777 on 25^d ; Z, from .43130 on 26^d to .43524 on 25^d .

October. After a week of comparatively quiet conditions increased activity began to show about midday on 7^d , becoming marked during the evening and night hours. The largest single movement was an easterly swing in D of $26'$ between $18^h 54^m$ and $20^h 55^m$. An increase in H of 90γ between $8d 2h 30^m$ and $2h 51^m$ was followed by a recovery of 80γ by $3^h 26^m$. At $8d 22^h 28^m$ H rose steeply in the form of a polar bay reaching a maximum ($+60\gamma$) about 23^h . A very sharp polar bay in H ($+90\gamma$) and D ($18'E$) began at $9d 21^h 22^m$ the maximum values being attained at $21^h 43^m$ and $21^h 34^m$ respectively. Considerable activity continued until $11^d 19^h$ when conditions suddenly became quiet. Unsteadiness appeared in the traces the following day from about 10^h , and between $13^d 19^h$ and $14^d 2h$ several pronounced bays occurred in H and D. The most conspicuous was a polar bay in H which increased 90γ between $23^h 0^m$ and $23^h 25^m$. During a further short spell of activity on 14^d H rose sharply at $19^h 4^m$ through 70γ to a sharp peak at $19^h 11^m$ which was followed by two small peaks at $19^h 59^m$ and $20^h 31^m$. During the afternoon of 16^d disturbance became more pronounced and considerable disturbance prevailed throughout the following three days. The most striking features occurring during this interval were, in H, a negative movement of 100γ between $17^d 15^h 0^m$ and 20^m ; an abrupt increase of 180γ from $19^h 28^m$ to a sharp peak at $19^h 34^m$ followed by a rapid fall of 170γ during the next 20 minutes; a rise of 130γ in 30 minutes from a sharp minimum to a sharp maximum at $18^d 17^h 13^m$; a rise of 110γ from $19^d 18^h 10^m$ to 26^m with a second smaller peak at 40^m . These were accompanied by comparable movements in D, the most striking being an easterly swing of $18'$ between $17^d 19^h 25^m$ and 31^m followed immediately by a westerly movement through $33'$ which continued until 41^m when a second easterly swing of $23'$ occurred lasting until $20^h 0^m$. At $20^d 20^h$ an isolated large movement occurred in H ($+90\gamma$) accompanied by an easterly bay in D ($13'$) movements being otherwise on a small scale from $20^d 1^h$. Similar conditions continued until 24^d by which time the traces had become quiet. Some unsteadiness appeared in all elements on 26^d with the appearance of a large easterly bay in D around 22^h ($23'$). From $27^d 14^h$ the traces became very quiet and remained so for about 14 hours after which they became less steady. At $28^d 11^h 53^m 2$ a "sudden commencement" marked the beginning of a storm which in spite of short duration showed a remarkable degree of activity and a well defined storm time pattern. The two most striking features of this storm were, firstly the very high maximum value attained by Z which from $13\frac{1}{2}^h$ rose unsteadily by 420γ to a maximum at $17^h 46^m$. It returned unsteadily until 20^h , about which time the violent movement suddenly ceased, after which a steady decrease of about 60γ during the next four hours returned the trace to its normal position on the sheet. The second outstanding feature was the very deep and sharp minimum in H which decreased in four or five oscillations by 340γ between $19^h 33^m$ and 40^m , i.e. in seven minutes. Recovery took about 30 minutes. By 0^h the traces had become practically quiet and remained so until the end of the month.

Ranges for the month: D, from $8^{\circ} 32'.1$ to $9^{\circ} 55'.0$ both on 28^d ; H, from .18171 on 28^d to .18741 on 9^d ; Z, from .43264 on 17^d to .43715 on 28^d .

NOTES ON MAGNETIC ACTIVITY

November. Following a quiet spell unsteadiness began to appear in the traces on 1^d at about 21^h. At 3^d3^h0^m H suddenly began to increase by 60γ in 20^m to form a small bay. A peak in H occurred at 3^d21^h22^m followed by a drop of 125γ to a fairly sharp minimum at 22^h2^m. Small positive bays (50γ) appeared in H at 4^d22^{1/2}h and 5^d23^h with a comparable easterly bay in D (10') at 4^d21^h. A more outstanding example occurred when H increased by 150γ between 6^d19^h10^m and 30^m, after which it decreased by 110γ by 19^h46^m. The corresponding movement in D was an easterly swing of 19' from 18^h50^m to a maximum at 19^h20^m, followed by a westerly swing of 25' which lasted until 19^h41^m. A second easterly movement of 9' restored the trace to approximately its initial position. The movements were accompanied by a small initial increase of Z followed by a decrease of about 50γ between 19^h28^m and 50^m. The following three days exhibited only moderate unsteadiness in the traces and conditions on 10^d, and until about 11^d20^h remained practically quiet. After this some irregularities began to appear, but the traces took on a new character from about midday on 13^d. For the following 12 hours all elements were subject to a ripple of small bays of duration from a half to one hour. Single movements varied in magnitude up to 100γ in H and 20' in D with small movements in Z. Unsteadiness continued until 16^d the ripple being again very marked during the evening hours of 14^d. By 17^d conditions had become comparatively quiet, but at 17^d19^h24^m D suddenly swung easterly to reach a maximum (28') at 20^h11^m. This was followed by a slow recovery during the next three hours. The traces continued to exhibit varying degrees of unsteadiness throughout the remainder of the month with a number of bays of the order of 50γ, but no further features of special interest were recorded.

Ranges for the month: D, from 8°44'.1 on 17^d to 9°24'.3 on 14^d; H, from .18534 on 13^d to .18748 on 6^d; Z, from .43267 on 14^d to .43392 on 13^d.

December. The first five days of the month were characterized by a general unsteadiness in the traces, the largest single movement being an easterly swing in D (20') at 4^d20^{1/2}h reaching maximum at 21^h4^m and returning 13' during the following half hour. This was accompanied by a similar positive bay in H (75γ). During the next two days the traces were fairly quiet but on 8^d between 1^h0^m and 30^m D moved westerly through 16' afterwards swinging back 27' during the following 45 minutes. This was accompanied by a positive bay in H (70γ) and a decrease in Z of 40γ. A period of increased agitation followed with rapid movements of small amplitude. A sharp easterly bay in D (30') occurred between 8^d19^h40^m and 20^h28^m accompanied by rapid increase in H (110γ) between 20^h5^m and 13^m. On 9^d a large irregular bay appeared in H (+120) between 17^{1/2}h and 19^{1/2}h with a slightly smaller easterly bay in D (15'). This was followed by small scale agitation, with increased activity from 10^d15^h which terminated with a positive bay in H (70γ) at 11^d23^h. Little movement of the traces was then recorded until 14^d21^h when a slight increase of activity set in. An easterly bay in D (15') occurring between 15^d18^{1/2}h and 20^{1/2}h was accompanied by one in H (-80γ) but otherwise movements were not outstanding. Slight unsteadiness prevailed until 17^d14^h when disturbance became more marked. This state of generally increased activity continued until 20^d though during this no movements of special interest were recorded. A revival of activity occurred during the afternoon of 22^d, the largest movement being an easterly bay in D (23') between 17^{1/2}h and 19^h, but by midday on 23^d conditions had become practically quiet. Very quiet conditions were maintained for several days. A shallow westerly bay in D (4') at 27d5h was accompanied by a rise in H of 20γ between 4^h40^m and 5^h10^m, following which H again continued fairly steady until the occurrence of a sudden commencement at 21^h37^m0 which marked the beginning of a disturbance which reached storm intensity. The largest single movement was a drop in H of 150γ from a maximum at 28^d5^h53^m to a minimum at 6^h25^m. By the afternoon of 28^d activity was reduced to moderate intensity and this ceased abruptly at 29d1h. The quiet spell continued until 30d21h when H and later D became agitated. Between 8^h and 11^h on 31^d this agitation became particularly marked, following which the traces exhibited a series of successive bays (average 50γ) which continued throughout the remainder of the day.

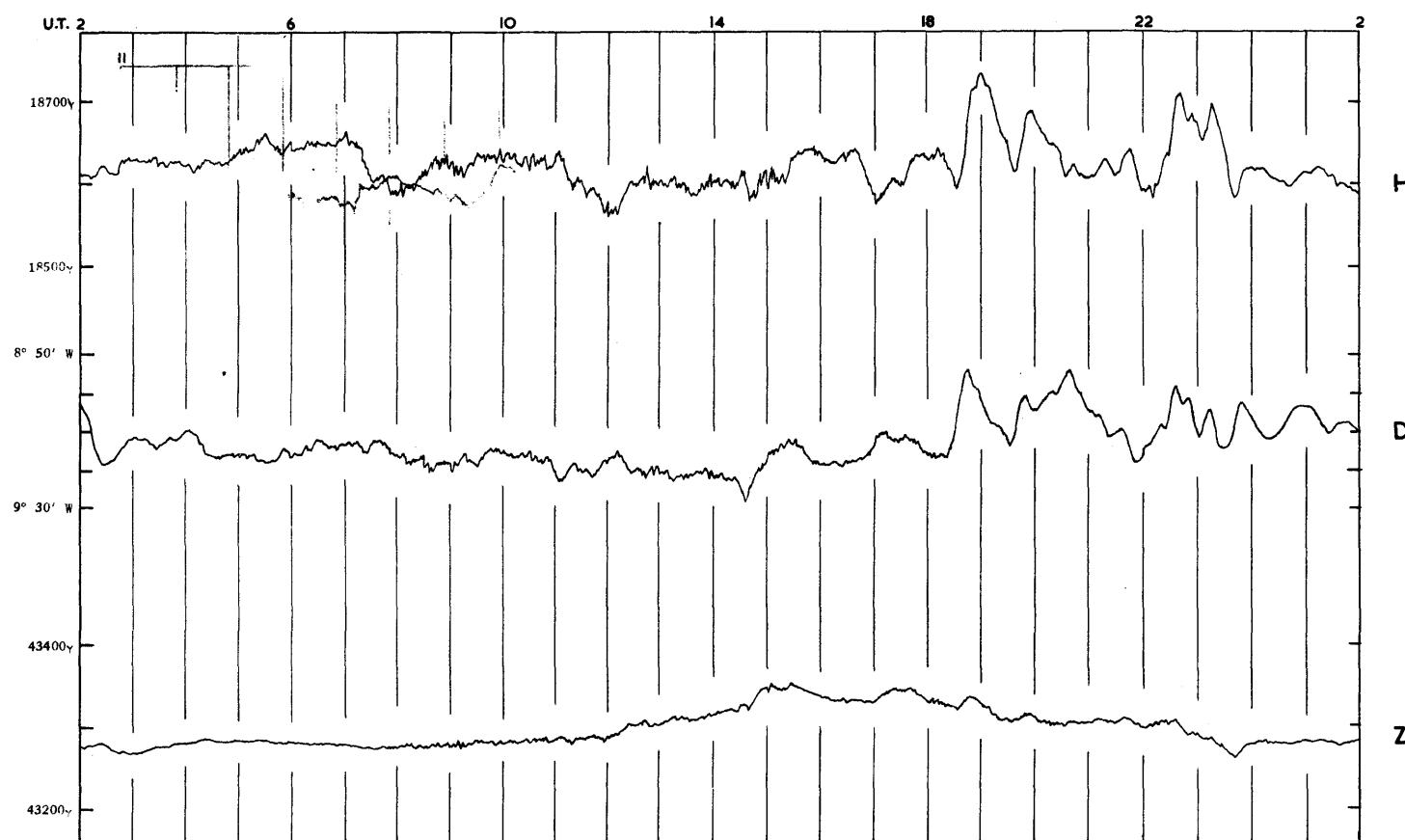
Ranges for the month: D, from 8°33'.7 on 8^d to 9°31'.1 on 28^d; H, from .18534 to .18742 both on 28^d; Z, from .43228 to .43389 both on 28^d.

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

Declination West: 9°59'5 on September 25; 8°16'6 on September 26.
 Horizontal Intensity: .18855 on May 9; .18171 on October 28.
 Vertical Intensity: .43715 on October 28; .43109 on July 2.

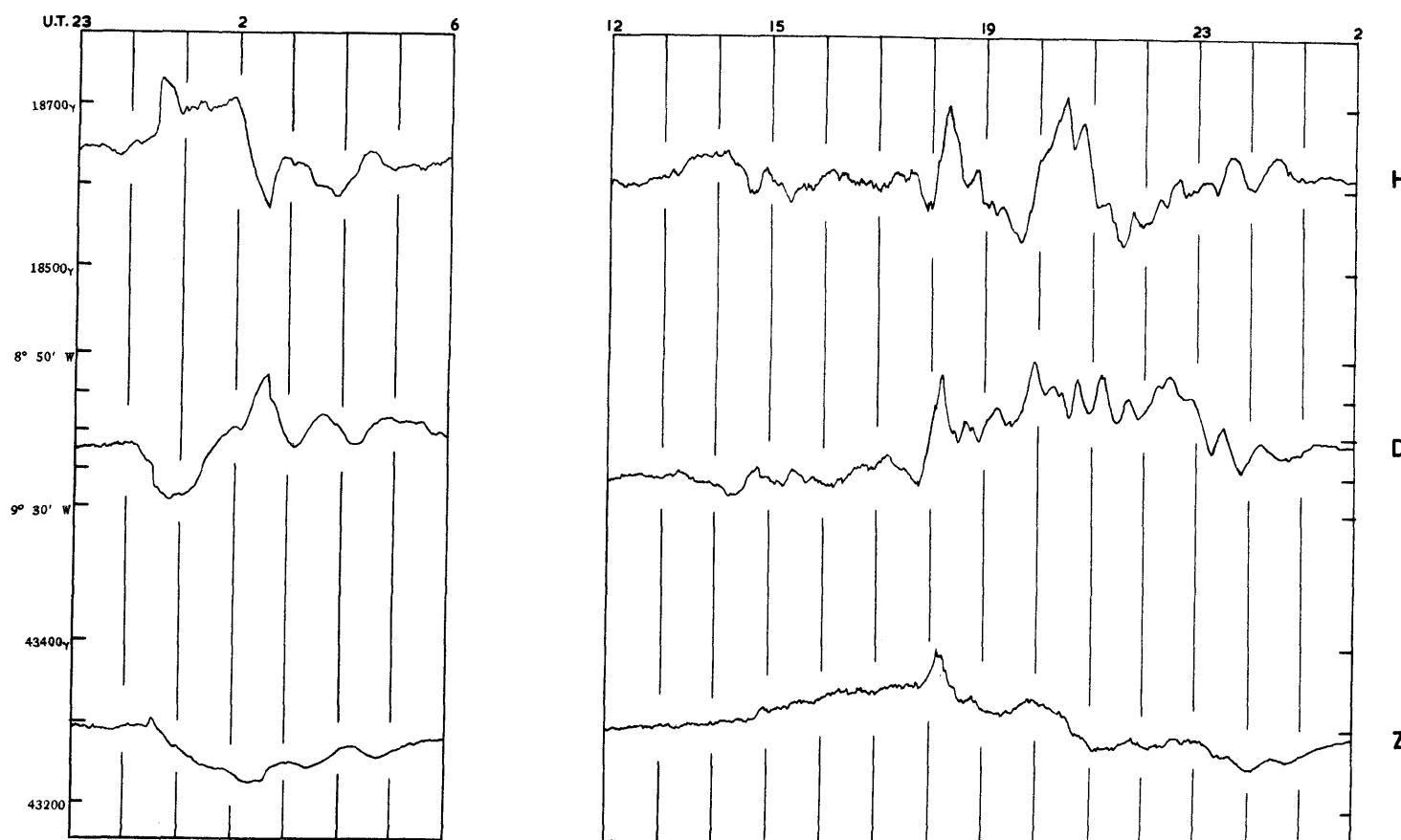
1951 FEBRUARY 23 - 24

Plate I



FEB 26 - 27

1951 MARCH 13 - 14



SCALES FOR THE MAGNETIC ELEMENTS

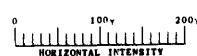
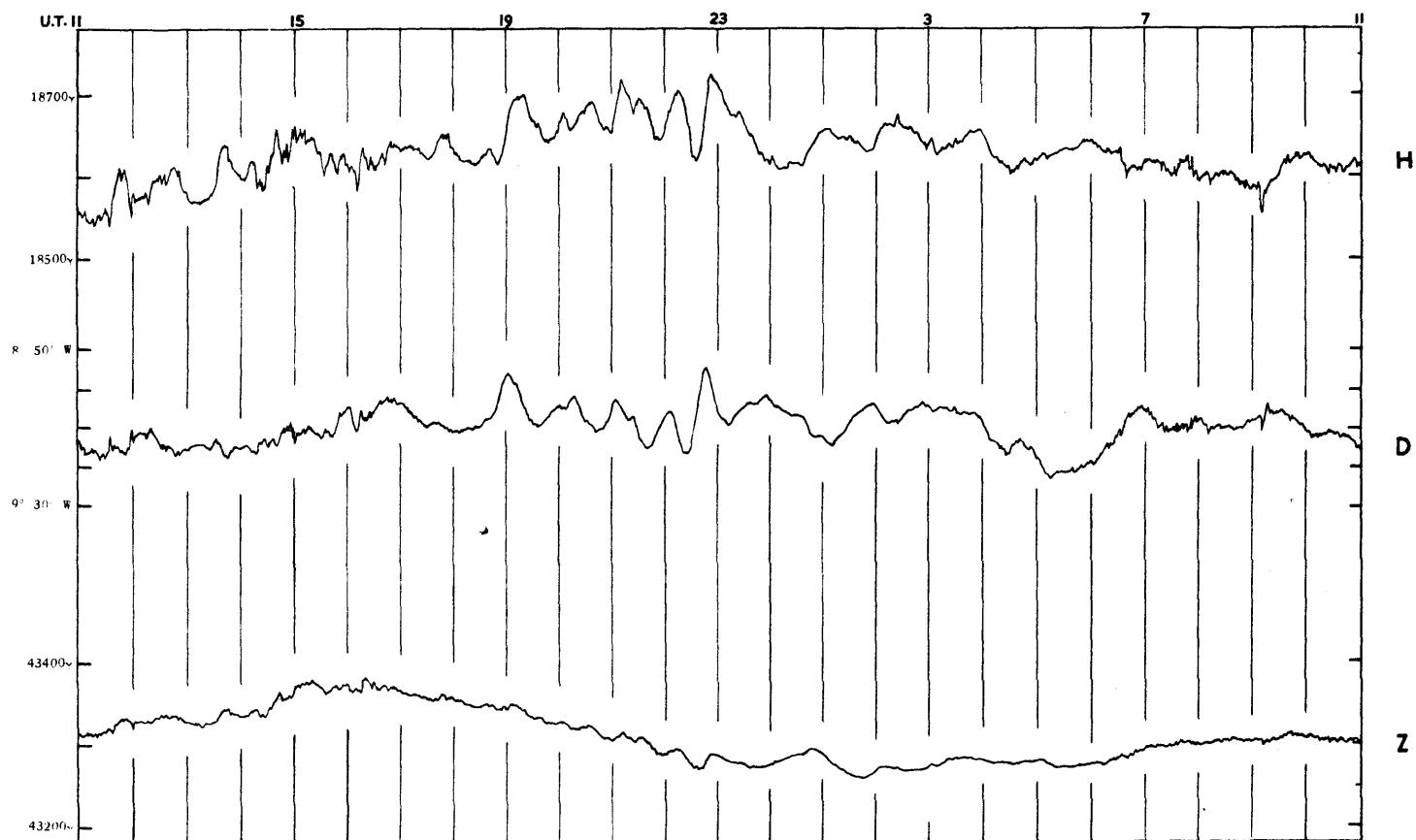
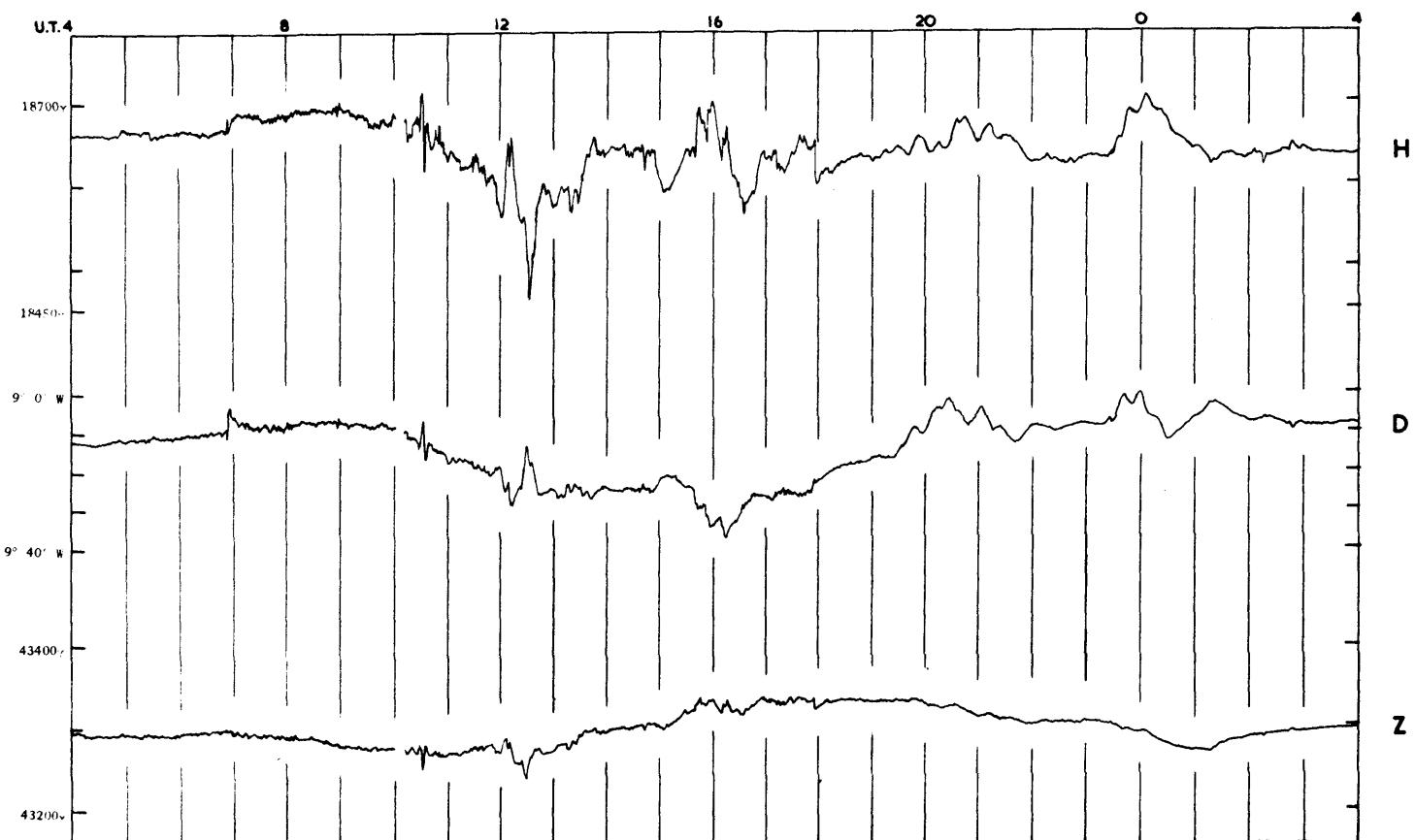


Plate II

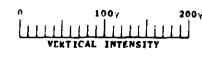
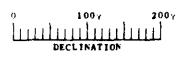
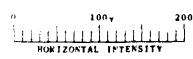
1951 SEPTEMBER 21 - 22



1951 APRIL 18 - 19

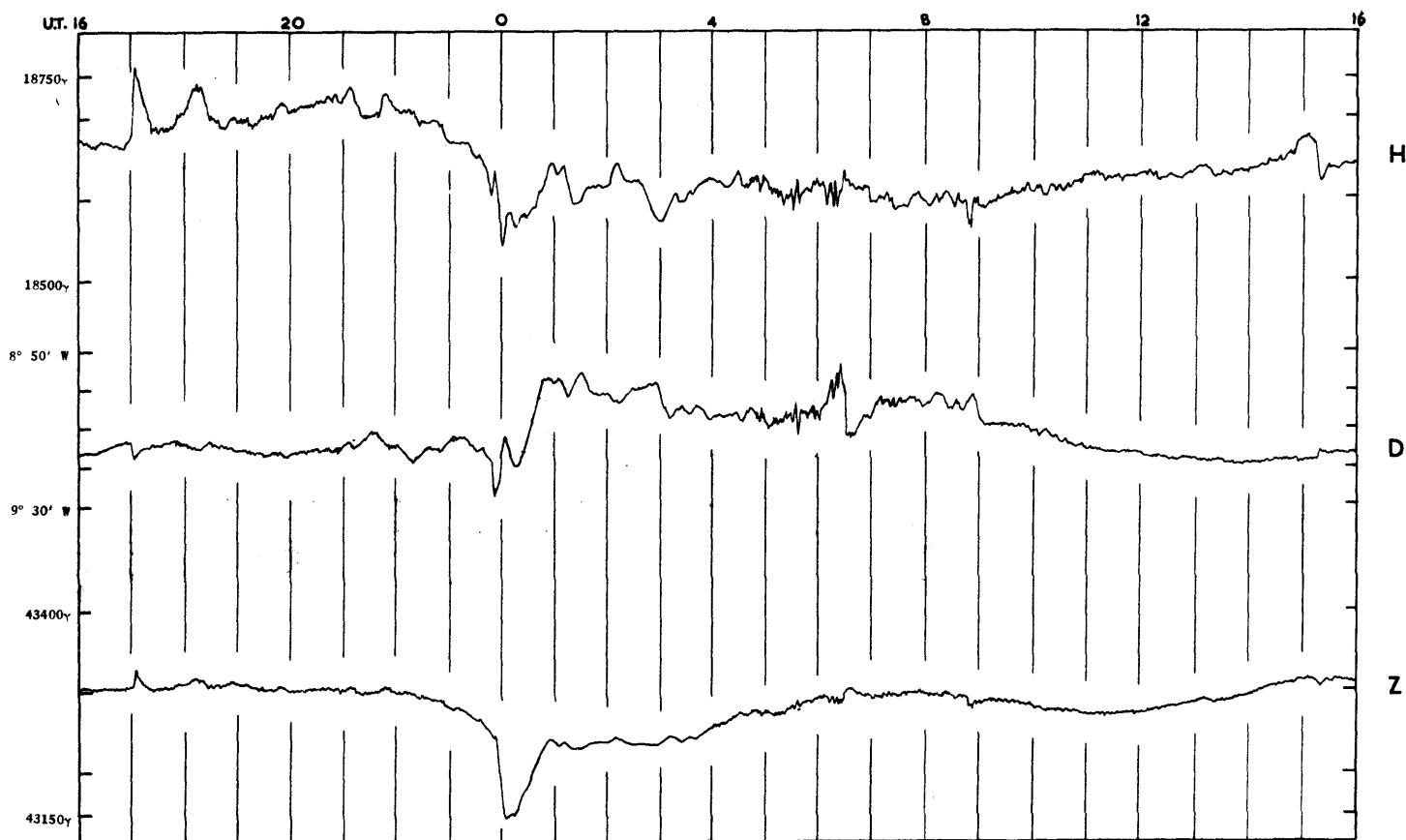


SCALES FOR THE MAGNETIC ELEMENTS

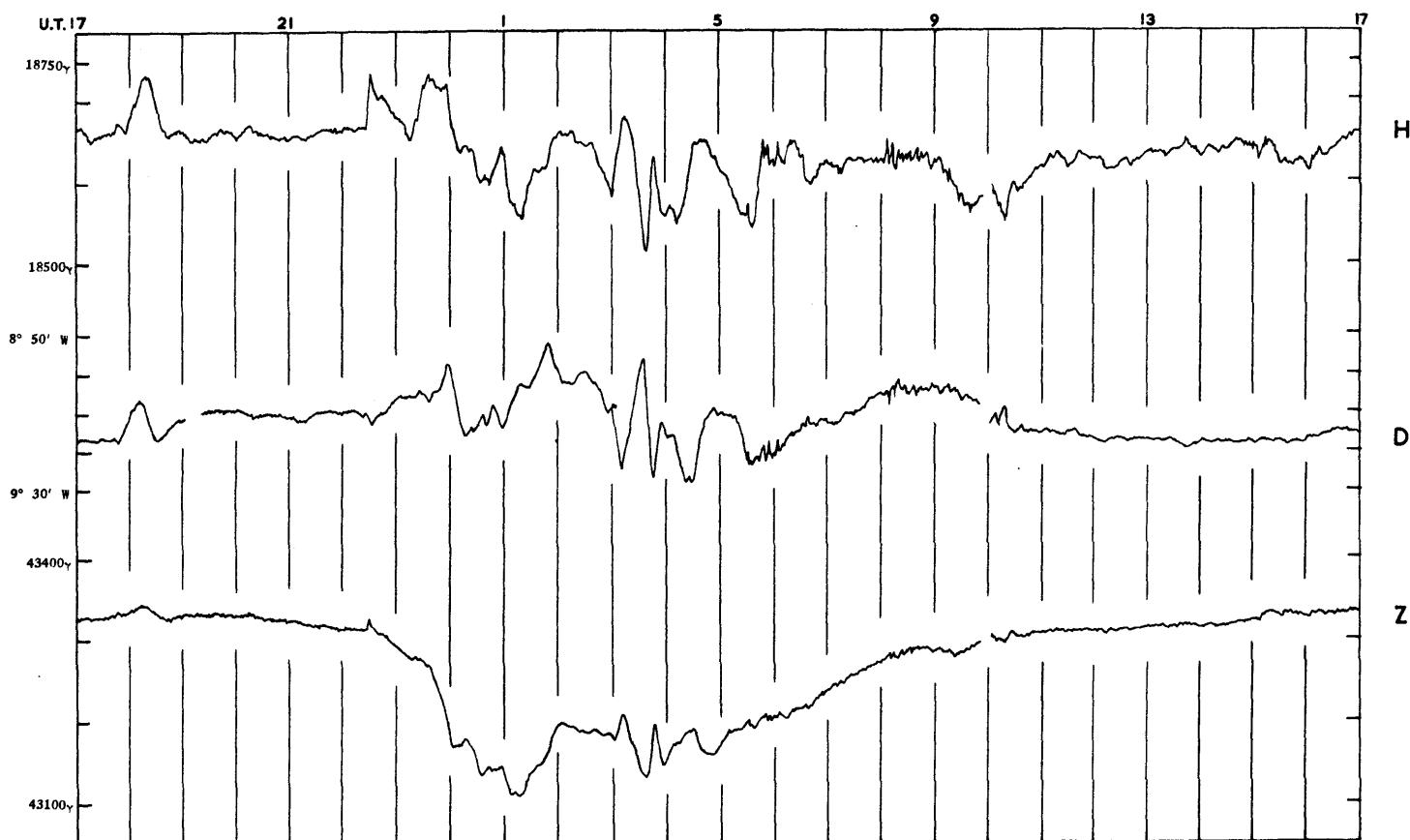


1951 JUNE 17 - 18

Plate III



1951 JULY 1 - 2



SCALES FOR THE MAGNETIC ELEMENTS

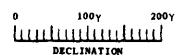
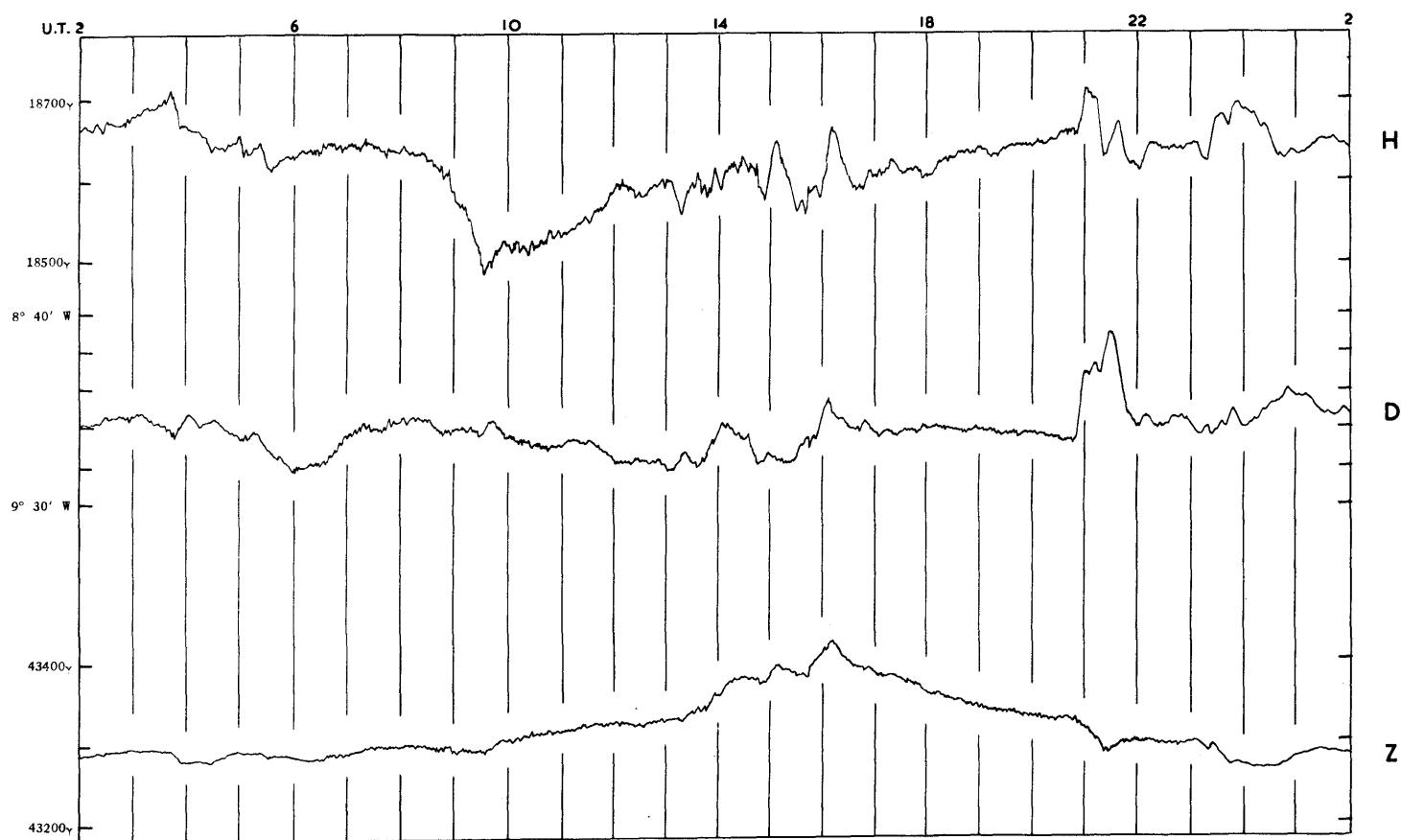
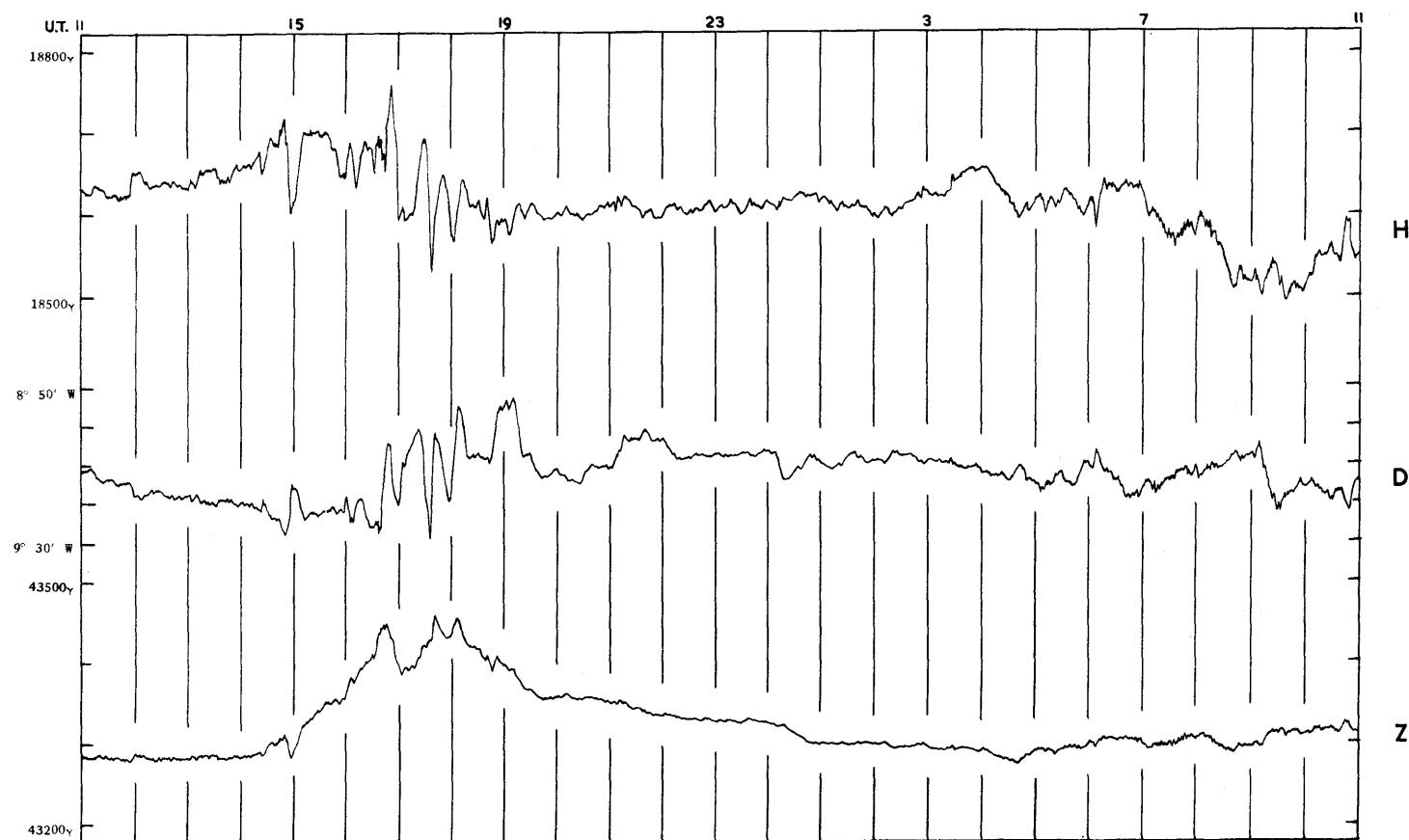


Plate IV

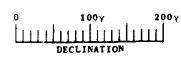
1951 SEPTEMBER 16-17



1951 SEPTEMBER 19-20

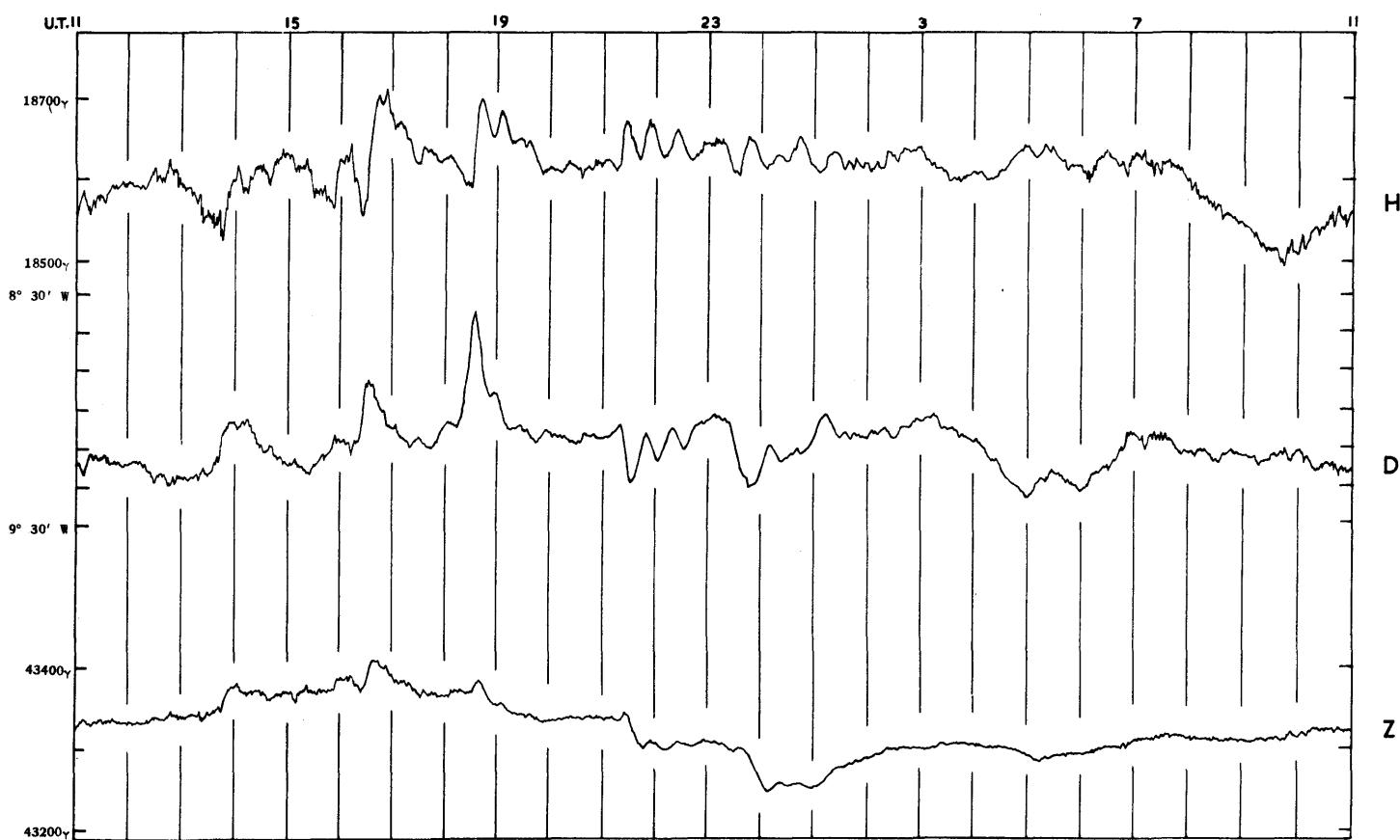


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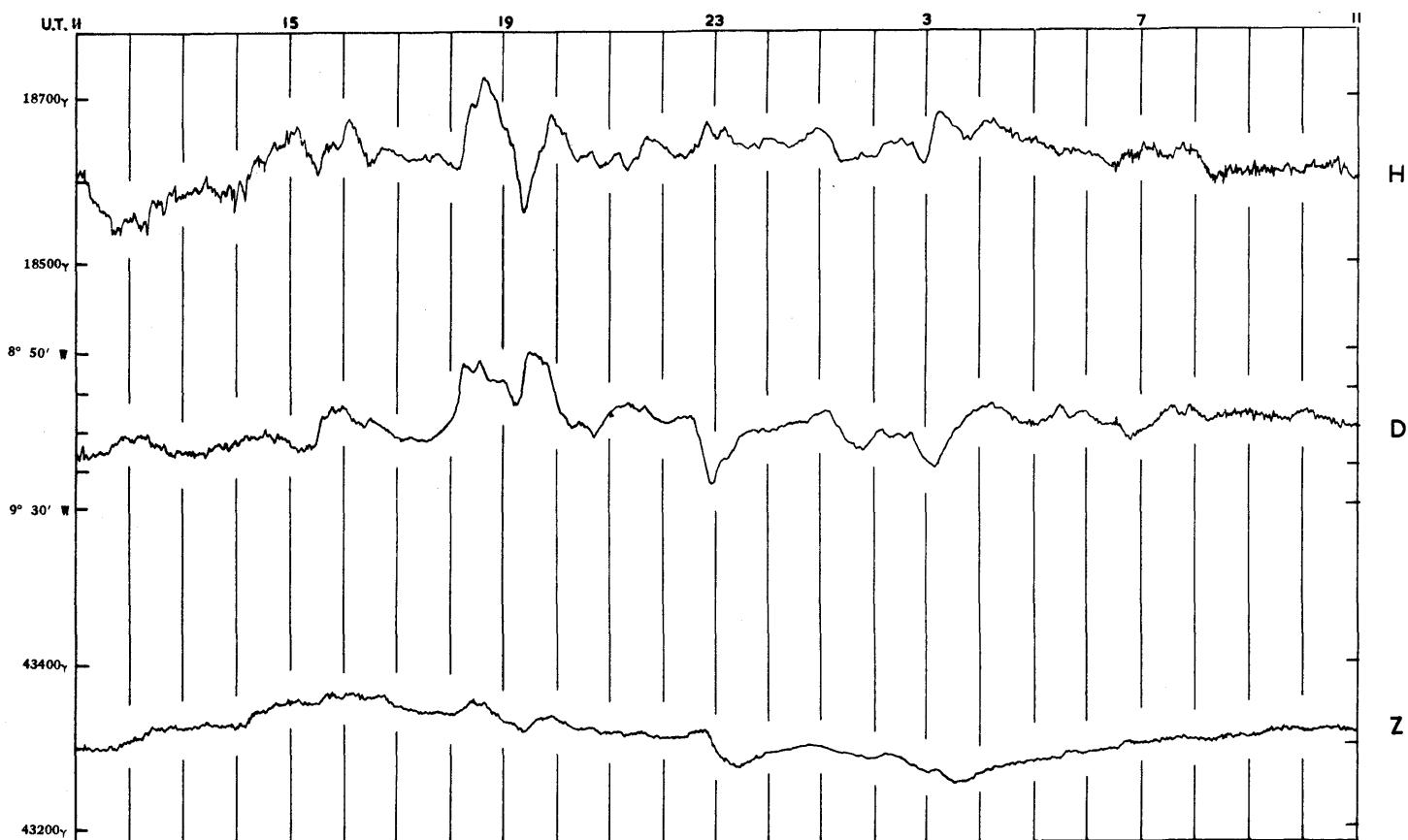


1951 SEPTEMBER 20-21

Plate V



1951 SEPTEMBER 22-23



SCALE FOR THE MAGNETIC ELEMENTS

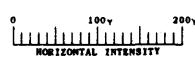
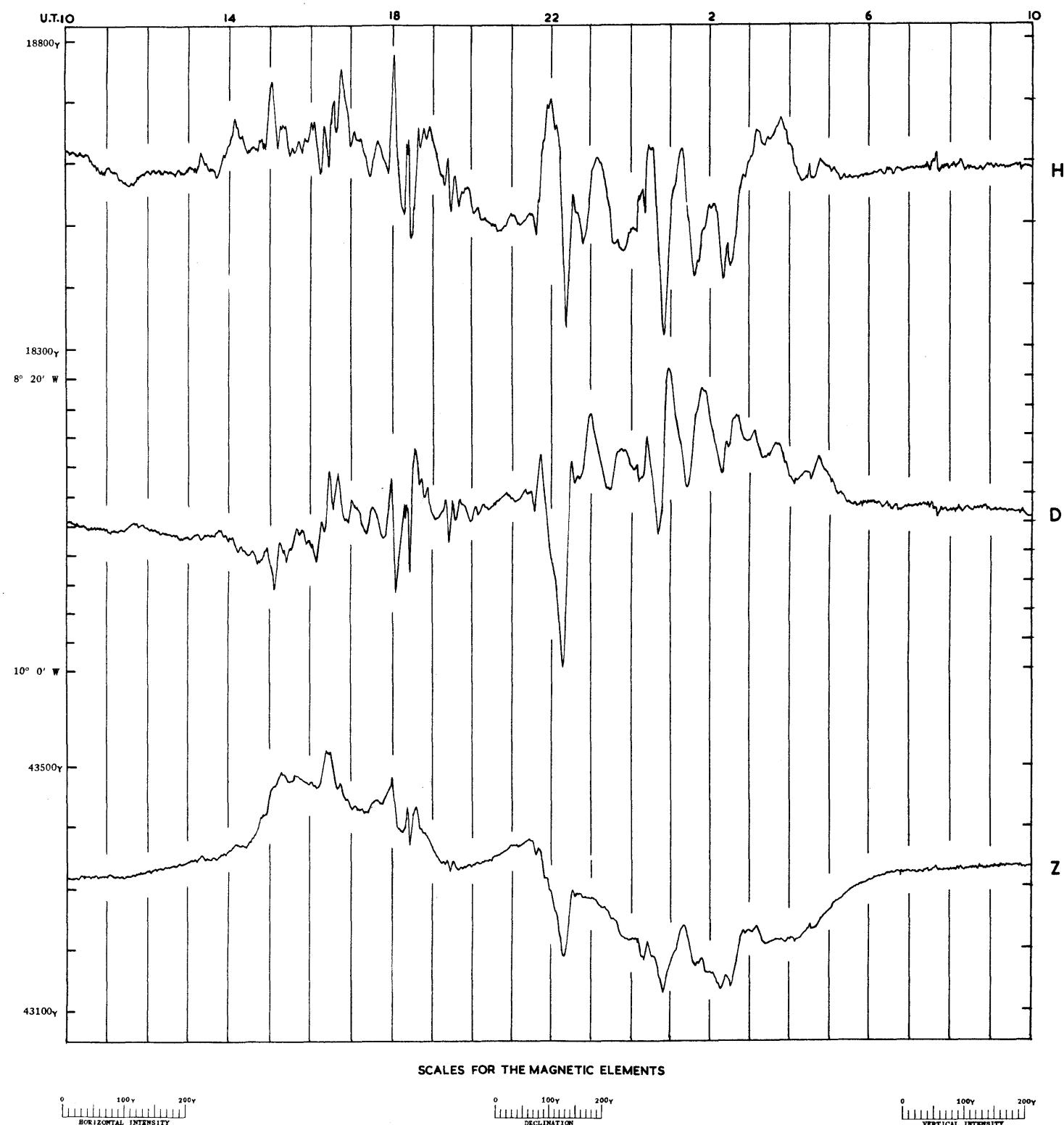


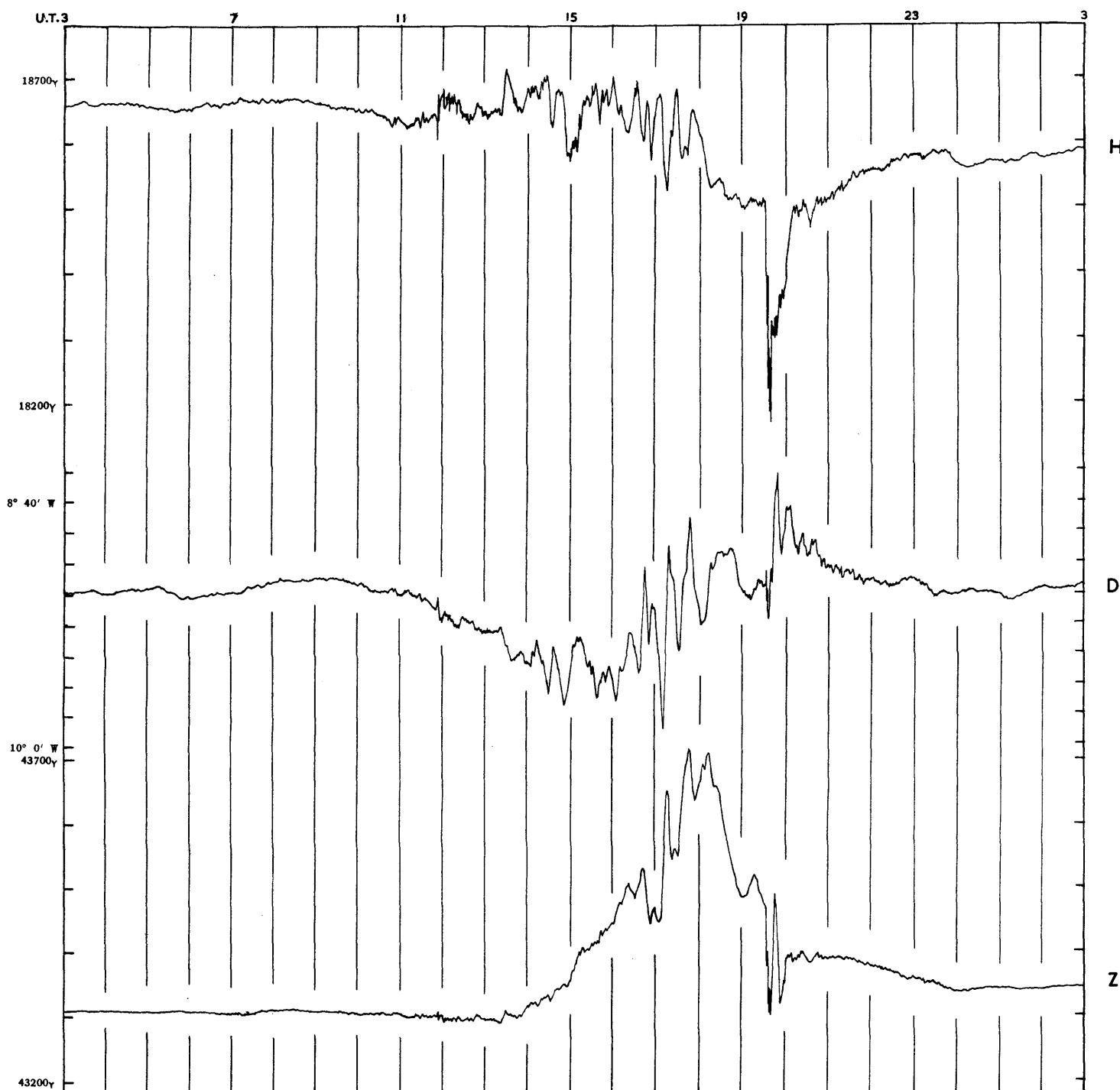
Plate VI

1951 SEPTEMBER 25-26



1951 OCTOBER 28-29

Plate VII



SCALES FOR THE MAGNETIC ELEMENTS

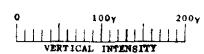
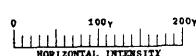
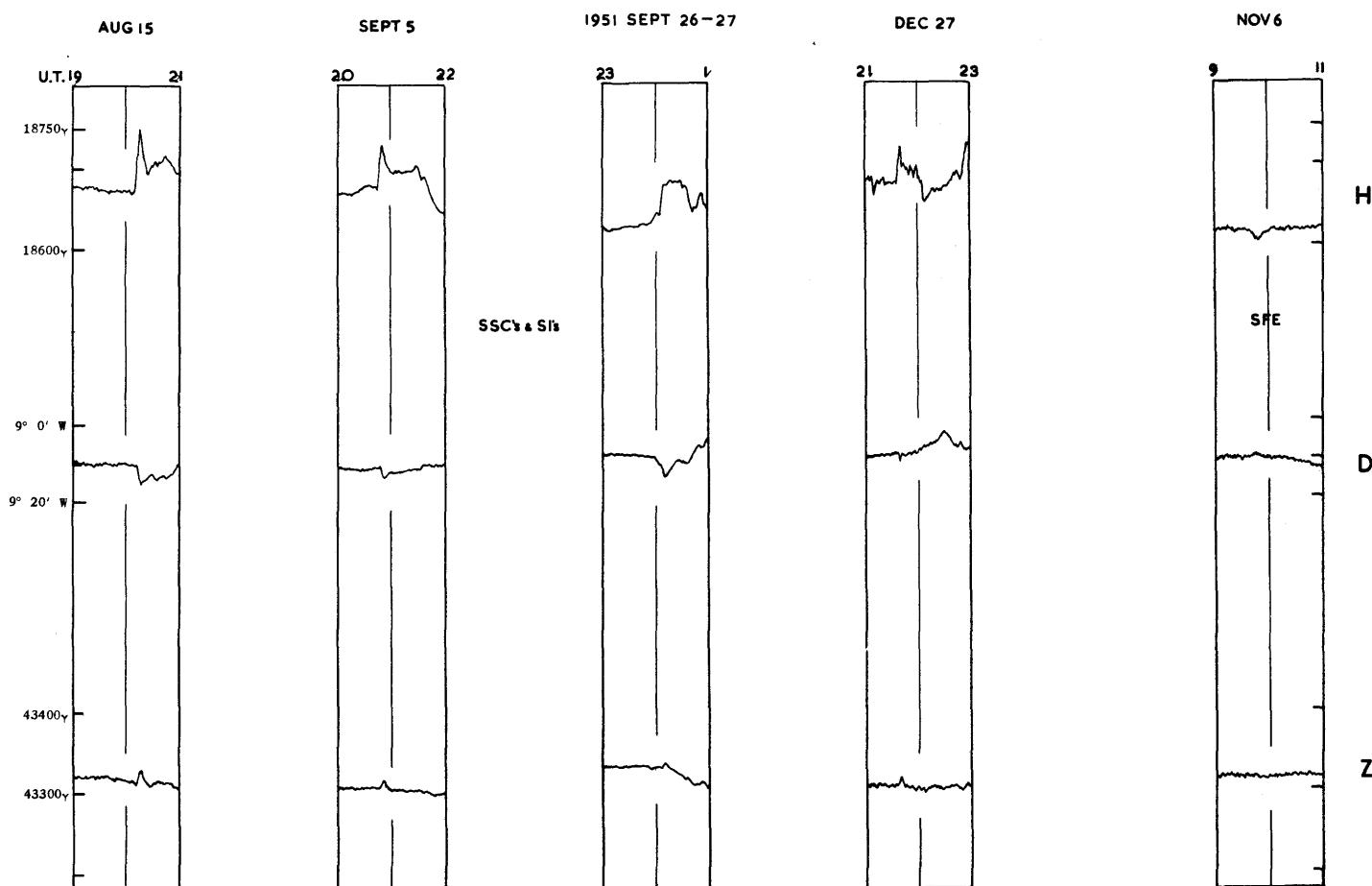
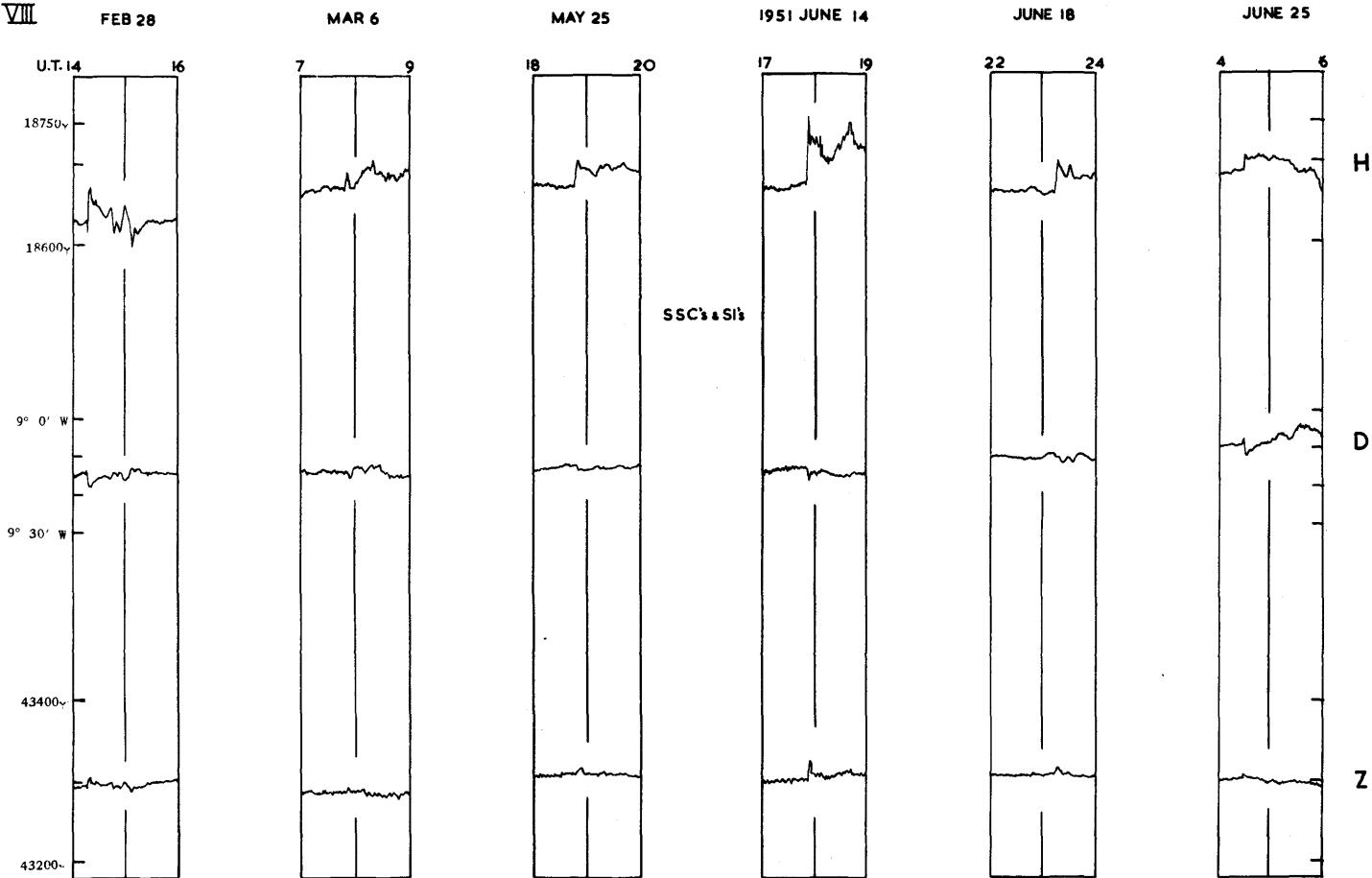
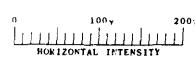
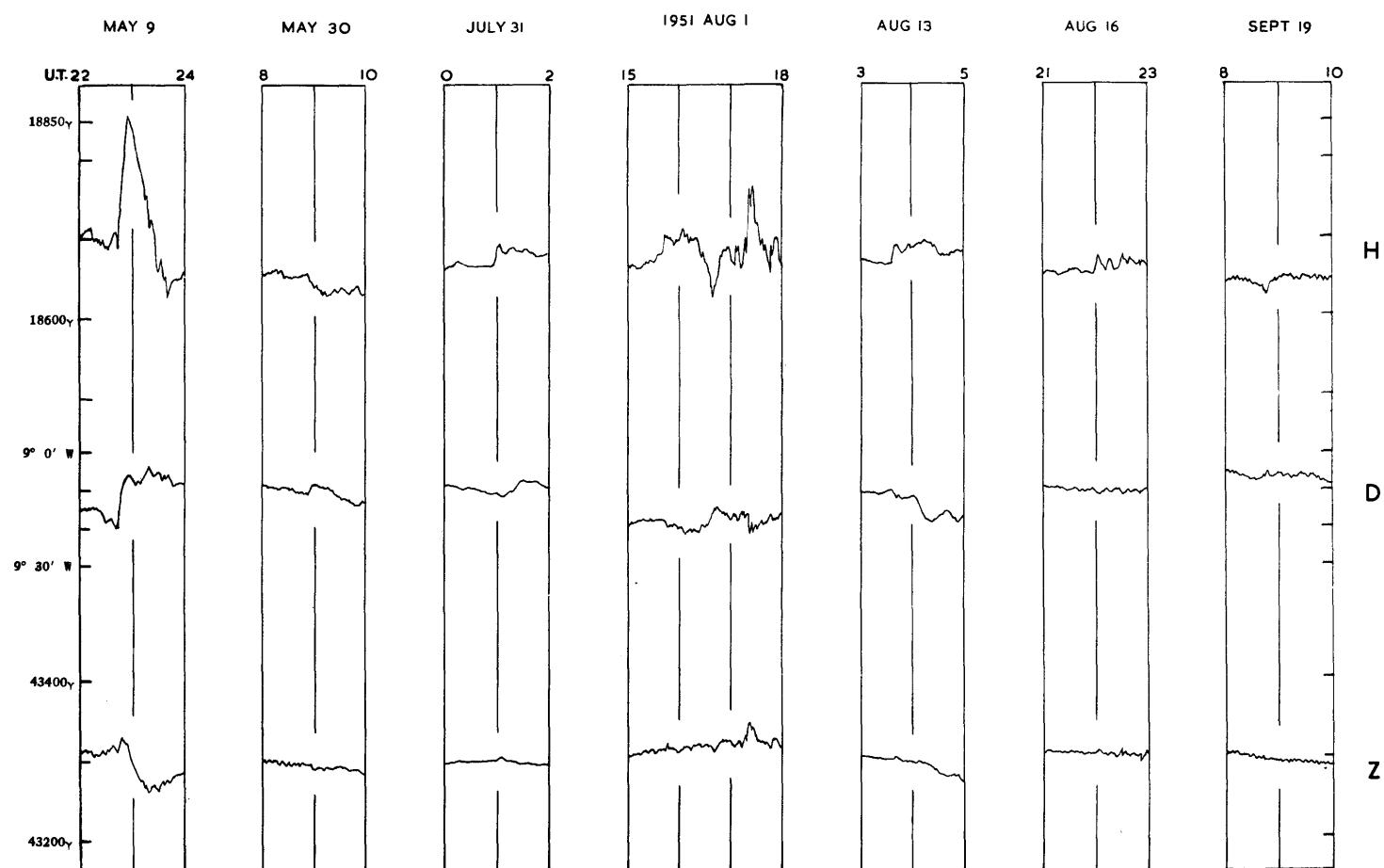
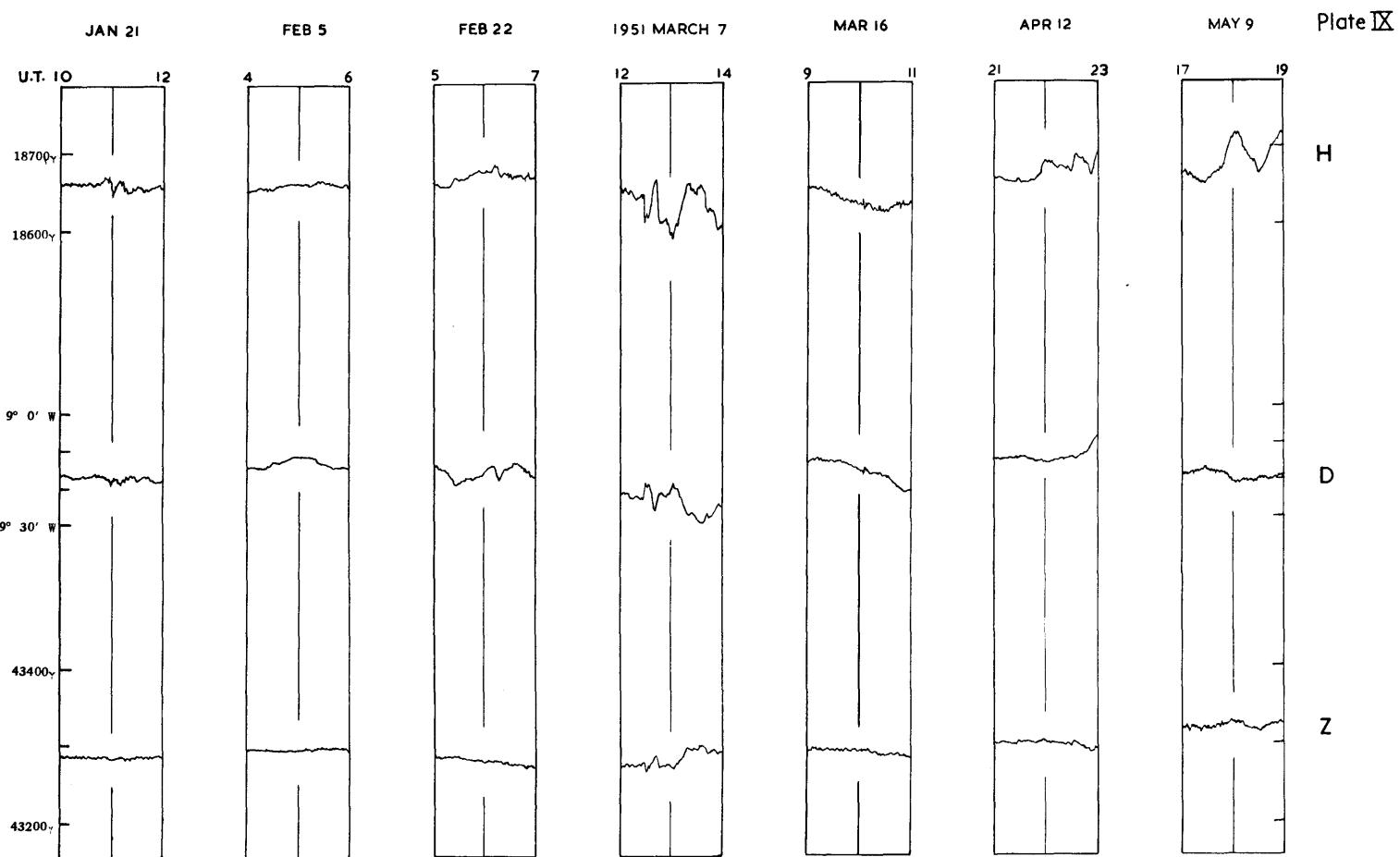


Plate VIII

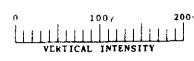


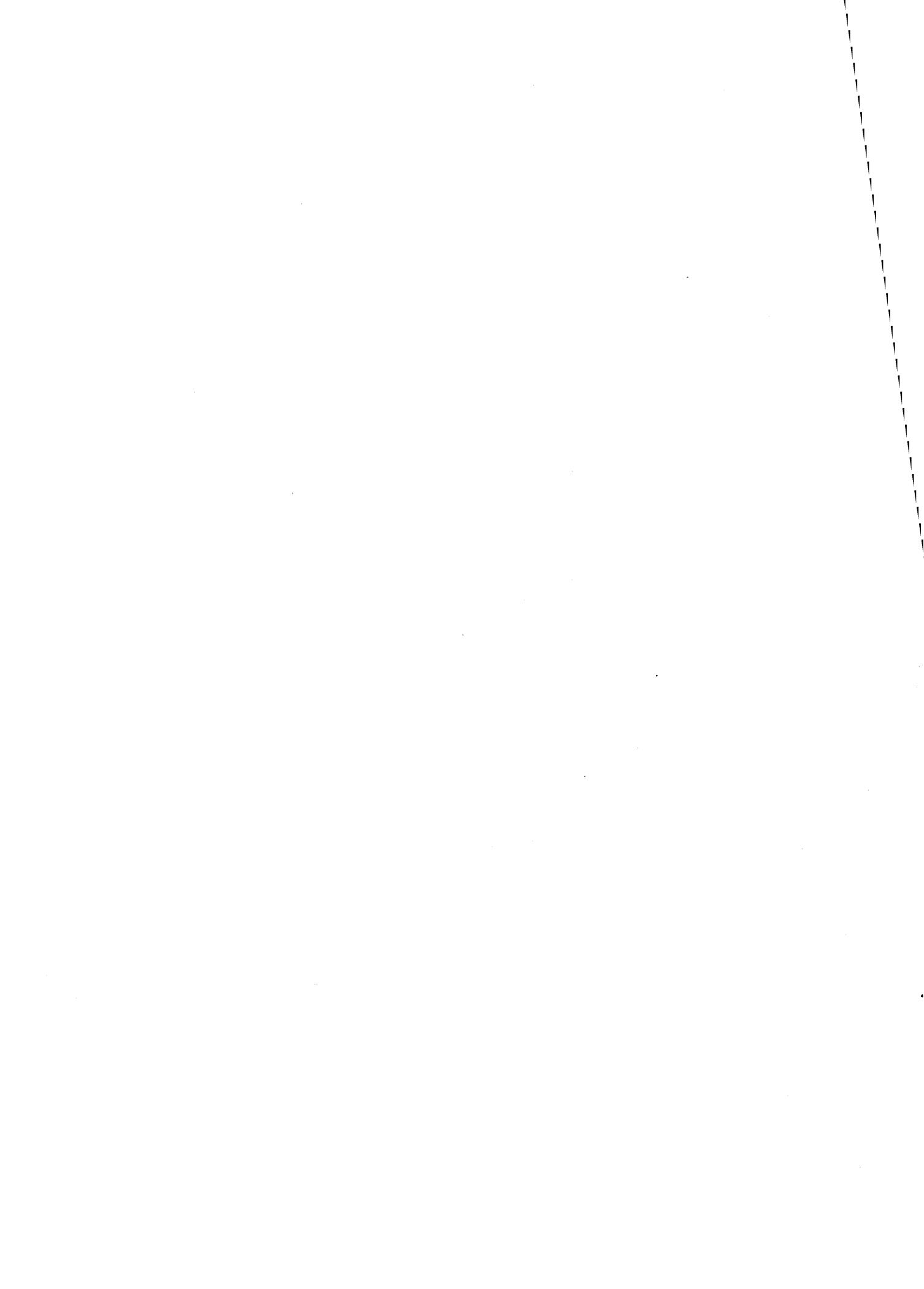
SCALES FOR THE MAGNETIC ELEMENTS





SCALES FOR THE MAGNETIC ELEMENTS





ROYAL OBSERVATORY, GREENWICH
AND THE
ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX

Results of
Meteorological Observations

1951

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH																
	Eye Readings made at 09 00 hours						Degree of Humidity (Saturation = 100)	Temperature of Radiation		Rainfall (Thrown back)	Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky				
	Temperature of the Air							Highest in Sun's Rays (Thrown back)	Lowest on the Grass				Polaris		δ Ursæ Minoris		
	Barometer Corrected and Reduced to 32° Fahrenheit	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb							Duration	Fraction of total Exposure	Duration	Fraction of total Exposure	
	in.	°	°	°	°	°		°	°	in.	hours	hours	hours		hours	hours	
Jan. 1	28.869	35.0	31.8	3.2	33.2	32.8	96	38.0	26.8	0.764	0.4	7.9	0.9	0.06	0.3	0.02	
2	28.750	36.4	32.4	4.0	34.2	33.9	97	35.0	30.4	0.110	0.0	7.9	1.7	0.12	1.5	0.11	
3	29.468	40.8	33.7	7.1	34.2	32.7	84	43.8	29.0	0.023	0.2	7.9	6.5	0.47	5.5	0.40	
4	29.512	49.6	30.6	19.0	40.8	40.4	96	50.0	22.9	0.150	0.0	8.0	0.6	0.05	0.0	0.00	
5	29.450	51.2	40.8	10.4	49.6	48.2	90	53.3	38.3	0.210	0.0	8.0	0.0	0.00	0.0	0.00	
6	29.423	50.4	45.6	4.8	45.6	43.3	82	63.3	43.1	0.030	1.6	8.0	5.1	0.38	3.8	0.28	
7	29.547	47.8	41.4	6.4	41.8	39.5	80	63.6	36.4	0.007	5.4	8.0	4.7	0.35	3.4	0.25	
8	29.579	47.6	41.4	6.2	47.3	46.1	91	54.2	36.8	0.220	0.0	8.1	8.3	0.61	7.2	0.53	
9	29.651	43.6	35.3	8.3	36.2	34.4	82	63.7	30.2	0.004	2.4	8.1	11.7	0.87	10.0	0.74	
10	29.522	46.6	33.8	12.8	39.2	37.7	86	56.6	23.3	0.200	0.1	8.1	0.6	0.04	0.0	0.00	
11	29.058	48.4	36.6	11.8	46.6	45.3	90	50.4	32.2	0.100	0.0	8.2	9.5	0.70	9.0	0.67	
12	28.996	42.1	36.9	5.2	39.6	37.7	83	57.6	31.5	0.055	0.5	8.2	9.3	0.69	8.0	0.60	
13	29.115	45.0	35.2	9.8	41.4	38.9	78	67.8	28.8	0.000	1.9	8.2	13.0	0.98	12.6	0.95	
14	29.444	46.2	38.6	7.6	41.3	39.1	81	63.2	30.0	0.225	1.2	8.3	2.4	0.18	1.4	0.10	
15	29.542	43.6	39.3	4.3	39.7	37.6	81	54.8	34.1	0.000	2.0	8.3	12.3	0.93	9.6	0.72	
16	30.249	51.8	33.9	17.9	37.4	35.9	86	51.6	27.1	0.130	0.0	8.3	0.0	0.00	0.0	0.00	
17	29.712	51.8	36.7	15.1	51.7	49.3	83	63.3	33.4	0.010	0.1	8.4	5.6	0.43	3.7	0.28	
18	29.557	50.0	45.1	4.9	49.0	44.1	65	63.3	40.6	0.020	0.1	8.4	12.2	0.92	12.0	0.91	
19	29.905	50.4	38.0	12.4	42.1	39.6	79	48.8	31.9	0.005	0.0	8.5	3.0	0.23	2.4	0.18	
20	29.849	49.8	41.8	8.0	48.6	46.6	85	59.4	38.9	0.000	0.0	8.5	2.1	0.16	1.8	0.14	
21	29.982	49.7	46.0	3.7	47.2	46.1	91	65.6	39.0	0.003	0.0	8.5	1.6	0.13	1.5	0.12	
22	29.898	48.4	43.6	4.8	44.8	43.0	85	66.1	35.3	0.050	0.1	8.6	2.5	0.19	1.1	0.08	
23	29.783	48.9	39.8	9.1	43.5	43.0	96	71.1	29.3	0.074	1.0	8.7	0.0	0.00	0.0	0.00	
24	29.934	44.5	41.4	3.1	42.6	41.3	89	61.9	39.4	0.006	0.6	8.7	0.0	0.00	0.0	0.00	
25	29.693	42.4	39.2	3.2	40.0	39.0	91	51.0	36.4	0.016	0.0	8.8	0.2	0.02	0.0	0.00	
26	29.489	44.0	39.6	4.4	41.6	40.9	94	49.4	34.0	0.167	0.0	8.8	5.6	0.43	5.6	0.43	
27	29.412	42.8	27.3	15.5	30.9	30.1	91	83.5	18.0	0.000	5.8	8.9	12.8	1.00	12.8	1.00	
28	29.603	38.4	27.7	10.7	29.6	29.3	97	64.7	18.0	0.000	3.4	8.9	12.8	1.00	11.3	0.88	
29	29.977	30.8	24.4	6.4	28.4	28.4	100	32.5	17.6	0.000	0.0	9.0	0.0	0.00	0.0	0.00	
30	29.965	37.0	23.7	13.3	25.2	25.2	100	58.0	24.6	0.000	3.2	9.0	1.0	0.08	0.9	0.07	
31	29.758	41.4	24.9	16.5	34.7	33.2	84	60.9	22.6	0.000	0.6	9.1	..	..	..	..
Means	29.571	45.0	36.3	8.7	40.3	38.8	87.5	57.0	31.0	Sum 2.579	1.0	8.4	4.9	0.37	4.2	0.32	

METEOROLOGICAL OBSERVATIONS, 1951.

D 63

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX					
	Clouds and Weather				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky			
	0 ^h to 6 ^h	6 ^h to 12 ^h	12 ^h to 18 ^h	18 ^h to 24 ^h			Polaris		δ Ursæ Minoris	
	0 ^h to 6 ^h	6 ^h to 12 ^h	12 ^h to 18 ^h	18 ^h to 24 ^h			Duration	Fraction of total Exposure	Duration	Fraction of total Exposure
Jan. 1	r o b x	b c ss c s c Nbst m	S s c b A cu Ci c m	c r c m	hours	hours	hours	0.04	0.5	0.04
2	c ss m	ss c Nbst i rs m	c Nbst rs ir o s o m	c ir o s o c m	0.2	8.0	1.0	0.08	0.8	0.06
3	c r o c b m	b bc Ci m	bc A cu m b f	b c ff x	6.2	8.1	6.5	0.48	4.3	0.32
4	c ir o f m	c Nbst m	c Nbst rr c m b	c r c r m b	0.0	8.1	0.0	0.00	0.0	0.00
5	rr c r m o	r c Nbst r	rr o	rr o	0.0	8.1	1.2	0.09	0.2	0.02
6	dd c r c	c Nbst ir c Ci A cu	bc c Nbst ir o	ir o d o c	2.2	8.1	4.2	0.31	3.1	0.23
7	c b	b Frcu	bc Ci b	b c	6.2	8.1	5.5	0.41	4.2	0.31
8	c r c	c Nbst r o r	rr f c Nbst d o	d o c bc	0.0	8.2	5.1	0.38	3.8	0.28
9	bc b x	b c Ci so-ha c	c bc c A cu Ast p o	c bc b	3.4	8.2	12.8	0.95	12.5	0.92
10	b c b x	b x c A cu Ast	c Nbst rr c	c	0.5	8.2	0.0	0.00	0.0	0.00
11	c rr	rr c Nbst r	c Nbst r b c	c r b c d	0.0	8.3	6.5	0.48	5.9	0.44
12	b	b c p bc Ci Cumb prhn	c Nbst Cumb p	c b c d	0.9	8.3	6.5	0.48	4.9	0.36
13	b c	c Stcu c p o	c Stcu m c b	b	4.4	8.3	12.9	0.98	12.9	0.97
14	b x	b c Nbst r o	c Nbst r c A cu	c r c	5.4	8.4	..	..	..	..
15	rr c	c b m b Frcu	b c A cu b	b	5.2	8.4	12.3	0.93	9.8	0.74
16	b c x f	c o St ff	o St m r o c	c rr	2.0	8.4	0.0	0.00	0.0	0.00
17	r c rr c	c Nbst ir c	c bc Frcu c r o	c lu-ha c	0.7	8.5	3.6	0.27	2.5	0.19
18	c	c Stcu	c Nbst p b c	c b bc	0.0	8.5	11.9	0.90	11.8	0.89
19	bc b m	b c A cu Ast m	c Nbst r o m c m o	c m o	0.0	8.6	2.4	0.18	1.8	0.14
20	c m o	c Stcu A cu m o	c Stcu A cu m b	c	0.0	8.6	0.0	0.00	0.0	0.00
21	c m o	c Stcu m b m	c Stcu m m o	c i d m o	0.0	8.7	0.0	0.00	0.0	0.00
22	id c m	bc Ci c A cu m	c Stcu St m	c m m o	0.0	8.7	0.0	0.00	0.0	0.00
23	c i r m	c A cu Frst b c m	c m c r c	c r c	4.8	8.8	2.8	0.21	2.4	0.18
24	rr c	c Stcu Frst	c Stcu c so-ha c	c	1.3	8.8	3.8	0.29	0.7	0.05
25	c o d m	o St i d o m	o St m	o m	0.0	8.8	1.2	0.09	0.9	0.07
26	o m	o c Nbst r r o m	c Nbst rr c m	c m	0.0	8.9	5.5	0.41	5.3	0.40
27	c b x m	b x m b Frcu	b bc Frcu b	b m x	4.6	8.9	11.8	0.95	11.7	0.93
28	b x f	b x f m	b m f x	b ff x	7.2	9.0	12.5	1.00	12.5	1.00
29	b ff x	f FF x	FF x	FF x	6.5	9.0	6.6	0.53	4.7	0.37
30	FF x	FF b f x	b f m	b c m	6.0	9.1	0.0	0.00	0.0	0.00
31	c m x	c A cu Stcu m x	c A cu b m	b x c m	0.6	9.1	12.5	1.00	12.5	1.00
Means	-	-	-	-	2.3	8.5	5.0	0.38	4.3	0.33

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH																
	Eye Readings made at 09 00 hours						Degree of Humidity (Saturation = 100)	Temperature of Radiation		Rainfall (Thrown back)	Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky				
	Temperature of the Air							Highest in Sun's Rays (Thrown back)	Lowest on the Grass				Polaris		δ Ursae Minoris		
	Barometer Corrected and Reduced to 32° Fahrenheit	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb							Duration	Fraction of total Exposure	Duration	Fraction of total Exposure	
Feb. 1	in.	o	o	o	o	o		o	o	in.	hours	hours	hours		hours		
2	29.979	44.3	28.1	16.2	33.0	31.3	82	61.3	20.6	0.000	0.0	9.1	3.0	0.24	2.7	0.21	
3	29.918	42.1	33.0	9.1	40.4	39.7	94	47.2	30.6	0.042	0.0	9.2	0.0	0.00	0.0	0.00	
4	29.417	40.4	39.2	1.2	39.9	39.1	93	44.4	37.0	0.343	0.0	9.3	5.5	0.44	5.4	0.43	
5	28.605	42.9	31.8	11.1	39.3	38.1	89	46.6	24.4	0.760	0.0	9.3	4.1	0.33	2.6	0.21	
6	28.533	46.1	37.7	8.4	40.9	38.4	78	82.9	34.1	0.020	2.8	9.3	12.4	0.99	12.0	0.96	
7	28.960	46.4	34.8	11.6	36.8	35.7	89	88.8	28.3	0.020	4.4	9.4	11.6	0.93	11.4	0.91	
8	29.302	48.1	32.3	15.8	36.6	35.7	91	89.0	24.5	0.060	6.8	9.5	2.0	0.16	1.1	0.09	
9	29.072	48.9	36.6	12.3	48.1	45.4	80	61.3	30.6	0.890	0.0	9.5	0.0	0.00	0.0	0.00	
10	29.259	43.8	36.7	7.1	36.8	36.3	95	63.5	34.6	0.065	0.8	9.6	11.8	0.94	11.5	0.92	
11	29.622	43.2	32.7	10.5	36.4	35.7	93	66.3	22.2	0.348	0.2	9.6	0.0	0.00	0.0	0.00	
12	29.454	40.3	36.5	3.8	36.5	35.8	93	46.8	32.2	0.110	0.0	9.7	9.6	0.80	9.1	0.76	
13	29.576	50.6	33.7	16.9	40.3	39.7	94	104.3	23.8	0.000	3.9	9.8	4.1	0.34	4.0	0.33	
14	29.560	41.8	35.7	6.1	37.4	37.1	97	46.8	28.1	0.630	0.0	9.8	0.0	0.00	0.0	0.00	
15	29.529	38.4	35.9	2.5	36.4	35.9	95	47.0	34.4	0.044	0.0	9.9	0.0	0.00	0.0	0.00	
16	29.662	44.8	34.9	9.9	36.0	35.4	94	76.9	30.0	0.040	2.3	10.0	5.4	0.45	4.3	0.36	
17	29.497	46.7	34.2	12.5	43.2	42.1	91	61.3	26.2	0.310	0.8	10.0	3.2	0.27	2.9	0.24	
18	29.267	46.8	42.5	4.3	46.7	46.0	95	62.3	36.2	0.249	0.5	10.1	10.9	0.95	10.6	0.92	
19	29.446	48.6	35.0	13.6	41.6	39.2	79	80.9	29.1	0.370	0.5	10.1	0.7	0.06	0.0	0.00	
20	29.206	47.7	38.2	9.5	40.3	37.7	77	97.0	32.6	0.023	7.3	10.2	10.4	0.90	10.0	0.87	
21	29.097	47.0	34.8	12.2	44.4	42.5	85	62.9	26.6	0.620	0.0	10.3	2.1	0.19	1.2	0.10	
22	28.966	46.6	34.6	12.0	38.8	36.0	74	99.5	29.7	0.095	4.5	10.3	9.3	0.81	8.3	0.72	
23	29.290	43.3	34.2	9.1	36.6	35.5	89	83.3	27.8	0.008	2.5	10.4	9.5	0.83	9.2	0.80	
24	29.627	47.1	35.4	11.7	40.2	37.9	79	94.3	29.4	0.018	3.0	10.5	9.3	0.81	8.5	0.74	
25	29.467	46.7	34.1	12.6	39.8	39.1	93	90.9	25.2	0.628	0.1	10.5	0.0	0.00	0.0	0.00	
26	29.673	41.2	36.2	5.0	37.3	36.6	93	53.0	33.7	0.086	0.2	10.6	8.5	0.77	1.0	0.09	
27	29.821	42.6	28.0	14.6	33.1	31.3	81	76.1	20.4	0.160	2.6	10.7	0.0	0.00	0.0	0.00	
28	29.793	44.6	33.1	11.5	39.6	37.8	84	98.3	32.4	0.000	1.7	10.7	6.5	0.59	2.5	0.23	
Means	29.420	44.9	34.6	10.2	39.0	37.7	88.2	72.1	28.8	Sum 5.939	1.6	9.9	5.4	0.46	4.5	0.38	

METEOROLOGICAL OBSERVATIONS, 1951.

D 65

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX					
	Clouds and Weather				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky			
	0 ^h to 6 ^h	6 ^h to 12 ^h	12 ^h to 18 ^h	18 ^h to 24 ^h			Polaris		δ Ursæ Minoris	
							Dura- tion	Frac- tion of total Exposure	Dura- tion	Frac- tion of total Exposure
Feb. 1	c b bc m x	c m x Acu c Stcu	c Stcu	b c	hours	hours	hours	0.20	0.5	0.04
2	c	c Nbst id _o m _o	c Nbst id _o m _o	c id _o c m	0.0	9.2	0.0	0.00	0.0	0.00
3	c r c m _o	c Nbst rr m _o	rr	r c b x	0.0	9.3	5.2	0.43	4.9	0.40
4	b x c rr	rr	rr c	c rr	0.0	9.3	3.8	0.31	2.5	0.20
5	rr c ir bc	bc Cumb Acu Ci	bc Cumb Stcu p bc	b	2.6	9.4	5.0	0.41	4.8	0.39
6	b x	b x c r b	b c b c p b	b	3.2	9.5	3.9	0.32	3.2	0.26
7	b x m	b x m b Cu Acu	b bc c Cu Acu	c rr	5.8	9.5	1.3	0.11	0.7	0.06
8	rr c	c Nbst rr _o	rr _o m	rr _o c r m	0.0	9.6	0.9	0.07	0.6	0.05
9	rr m	rr m c Stcu	c p c Stcu b	b c p c b	6.2	9.7	10.0	0.82	9.5	0.77
10	b m x	b m c Stcu Acu	c Ast	c	0.9	9.7	0.8	0.07	0.1	0.01
11	c r R	R r c Nbst	c ff	c ff b m	1.7	9.8	10.6	0.90	9.9	0.84
12	b m x	b m c Acu Ou	c Stcu Frst b m	b m ff	7.4	9.8	2.4	0.20	1.8	0.15
13	fe fe	fe fe o f r _o	c Nbst r _o rr f m	rr m	0.0	9.9	0.0	0.00	0.0	0.00
14	rr m	rr r _o m	c Nbst id _o m	c m	0.0	9.9	2.3	0.20	1.4	0.12
15	c r m	r c b m c Stcu	c Stcu	c b	0.4	10.0	0.0	0.00	0.0	0.00
16	c	c Nbst rr _o	r c Nbst Acu c r	r c b m c	0.0	10.1	1.2	0.10	0.0	0.00
17	c r	rr	rr c Stcu b	b x	0.4	10.1	11.1	0.97	10.5	0.91
18	b x	b c Nbst r _o c p c	c Nbst p bc Ast Ci	c r c r	4.4	10.2	0.9	0.08	0.4	0.03
19	rr c	c b c Cu Stcu	c Cu p b	b c lu-ha b	7.8	10.2	9.6	0.84	9.6	0.84
20	b x c	c Nbst ir d _o r	rr c r _o p bc	bc c ir	0.2	10.3	2.9	0.25	1.8	0.16
21	ir c	c Cist so-ha bc Ci Frcu	bc Acu Ci c p t bc	b prsa	7.8	10.4	9.3	0.81	9.0	0.78
22	b c r m	r m c Ci Cist so-ha c	c p c	c p _o b c b	4.7	10.4	11.4	0.99	11.3	0.98
23	b c m	c m c Nbst Cumb	c Cumb b	b bc lu-ha	5.8	10.5	7.0	0.61	6.5	0.56
24	bc lu-haxc	c Nbst ir c Ast	c Nbst u rr _o	r _o r c	0.1	10.6	2.6	0.24	1.9	0.17
25	c id rr	r rs rr _o	r _o c Stcu	c bc	0.6	10.6	9.9	0.90	8.3	0.76
26	b c x m	b c Cist so-ha	so-ha c Nbst rr	r c r c	4.9	10.7	0.0	0.00	0.0	0.00
27	c	c Stcu	c bc Acu Frcu m	c b m f	2.8	10.8	8.5	0.77	7.3	0.67
28	f F x	F x b m	b c Acu b m	b m F f	4.7	10.8	10.9	0.99	9.0	0.82
Means	-	-	-	-	2.7	10.0	4.8	0.41	4.1	0.36

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH																
	Eye Readings made at 09 00 hours						Degree of Humidity (Saturation = 100)	Temperature of Radiation		Rainfall (Thrown back)	Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky				
	Barometer Corrected and Reduced to 32° Fahrenheit	Temperature of the Air						Highest in Sun's Rays (Thrown back)	Lowest on the Grass				Polaris		δ Ursae Minoris		
		Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb		Duration	Fraction of total Exposure				Duration	Fraction of total Exposure			
	in.	°	°	°	°	°		°	°	in.	hours	hours	hours		hours		
Mar. 1	30.171	45.9	29.2	16.7	35.4	33.9	85	72.3	21.2	0.038	2.5	10.9	0.0	0.00	0.0	0.00	
2	30.026	44.4	35.4	9.0	42.1	41.6	96	56.7	32.2	0.006	0.0	10.9	5.2	0.48	4.7	0.43	
3	30.208	40.4	34.6	5.8	35.4	31.7	65	86.3	26.5	0.000	2.0	11.0	1.0	0.10	0.8	0.07	
4	30.159	46.8	35.1	11.7	36.7	34.4	77	92.3	28.1	0.000	5.8	11.1	5.6	0.53	3.7	0.35	
5	29.927	47.4	31.1	16.3	33.4	32.9	95	79.0	19.0	0.008	0.3	11.1	0.0	0.00	0.0	0.00	
6	29.646	45.8	33.4	12.4	42.0	40.0	83	80.6	32.2	0.006	0.0	11.2	5.4	0.52	4.0	0.38	
7	29.248	50.6	36.2	14.4	44.8	39.7	60	101.0	27.4	0.000	2.9	11.3	8.2	0.78	7.0	0.67	
8	29.293	40.4	36.2	4.2	40.0	37.7	79	47.0	25.0	0.114	0.0	11.3	0.0	0.00	0.0	0.00	
9	29.366	36.2	34.6	1.6	35.2	34.4	92	39.0	32.2	0.024	0.0	11.4	0.0	0.00	0.0	0.00	
10	29.351	38.7	34.3	4.4	35.3	34.3	90	48.9	32.0	0.178	0.0	11.4	0.0	0.00	0.0	0.00	
11	29.086	43.8	35.3	8.5	38.7	38.3	96	70.1	34.2	0.060	0.0	11.5	0.3	0.03	0.0	0.00	
12	29.157	50.3	37.3	13.0	40.2	38.4	84	104.9	30.1	0.003	7.5	11.6	2.8	0.27	1.7	0.17	
13	28.969	52.4	39.0	13.4	48.3	44.4	71	94.3	28.2	0.600	1.6	11.6	0.1	0.01	0.0	0.00	
14	28.877	52.6	42.7	9.9	46.2	42.8	74	96.1	40.6	0.000	1.9	11.7	4.1	0.40	4.0	0.39	
15	29.601	55.1	39.3	15.8	43.6	41.3	81	104.2	32.0	0.000	5.8	11.8	7.8	0.76	7.0	0.69	
16	29.631	52.7	34.1	18.6	44.4	42.4	84	66.7	24.1	0.284	0.1	11.8	0.0	0.00	0.0	0.00	
17	29.323	55.9	44.0	11.9	52.2	51.2	92	88.7	45.4	0.050	0.0	11.9	0.0	0.00	0.0	0.00	
18	29.248	51.0	44.0	7.0	47.7	42.6	62	96.3	40.6	0.360	2.7	12.0	6.6	0.68	6.0	0.62	
19	29.259	43.4	40.8	2.6	42.8	42.3	96	72.8	32.4	0.106	0.0	12.0	2.7	0.28	1.2	0.12	
20	29.920	45.4	32.7	12.7	38.4	35.0	68	101.6	25.4	0.000	8.7	12.1	3.8	0.39	0.6	0.06	
21	30.181	51.1	31.8	19.3	44.1	39.1	60	99.3	23.6	0.270	3.8	12.2	0.0	0.00	0.0	0.00	
22	29.771	57.0	39.8	17.2	50.8	48.8	86	91.3	37.7	0.000	0.1	12.2	0.0	0.00	0.0	0.00	
23	29.490	53.7	49.2	4.5	50.1	47.0	78	75.3	47.3	0.278	0.0	12.3	8.0	0.82	7.6	0.78	
24	29.728	47.8	37.8	10.0	41.3	36.8	61	107.3	31.2	0.000	5.2	12.4	8.9	0.96	8.5	0.92	
25	29.904	46.7	33.7	13.0	40.3	36.0	62	97.7	27.3	0.040	4.9	12.4	0.0	0.00	0.0	0.00	
26	29.582	47.9	39.7	8.2	41.6	38.9	77	63.0	38.4	0.163	0.0	12.5	5.4	0.58	5.0	0.54	
27	29.428	45.1	37.1	8.0	37.9	36.1	83	92.9	35.4	0.010	2.3	12.6	8.8	0.95	8.4	0.90	
28	29.730	45.1	32.1	13.0	38.8	34.5	61	100.5	25.0	0.027	5.7	12.6	4.2	0.46	0.4	0.04	
29	29.405	44.2	31.3	12.9	40.3	37.3	73	77.7	25.6	0.135	0.2	12.7	0.0	0.00	0.0	0.00	
30	29.508	45.7	34.8	10.9	38.2	34.7	67	101.6	33.3	0.000	4.6	12.7	9.3	1.00	9.3	1.00	
31	29.629	46.2	26.7	19.5	41.5	37.0	62	78.3	18.8	0.070	0.0	12.8	7.4	0.85	6.6	0.75	
Means	29.575	47.4	36.2	11.2	41.5	38.9	77.4	83.3	30.7	Sum 2.830	2.2	11.8	3.4	0.35	2.8	0.29	

METEOROLOGICAL OBSERVATIONS, 1951.

D 67

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX					
	Clouds and Weather				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky			
	0 ^h to 6 ^h	6 ^h to 12 ^h	12 ^h to 18 ^h	18 ^h to 24 ^h			Polaris	δ Ursæ Minoris		
							Dura- tion	Frac-tion of total Exposure	Dura- tion	
Mar. 1	b m f x	b f c Stcu	c Stcu b c	c	7.4	10.9	0.0	0.00	0.0	0.00
2	c o f	o St f m id _o	o St c b	b c	0.1	10.9	4.1	0.37	3.4	0.31
3	c x	c Stcu	c bc Frcu b	b c	7.9	11.0	3.0	0.28	1.8	0.17
4	c x	c bc Ci Frcu	bc Ci Frcu so-ha b	b x f	6.4	11.1	10.5	0.98	7.7	0.71
5	b c x f F	FF c Cist so-ha m	c Cist so-ha c Ast m	c r c m	6.4	11.1	2.8	0.26	0.6	0.06
6	c m _o	c Ast Nbst r _o c	c r _o c Stcu	c b	1.3	11.2	1.5	0.14	1.2	0.11
7	b c ir	c Acu Ast Ci	c bc Acu Ci b m	b m x	5.3	11.3	8.4	0.78	8.4	0.78
8	b x c	c Stcu	c Stcu c d	dd c r	1.9	11.3	0.0	0.00	0.0	0.00
9	rr _o c m	r rs s c Nbst id _o	c Nbst r _o r _o s _o	c r _o s _o r _o c	0.0	11.4	0.0	0.00	0.0	0.00
10	c	c Nbst s _o r _o s _o	c Nbst ir r _o	c ir r _o	0.0	11.4	0.0	0.00	0.0	0.00
11	c ir	ir d _o c h c Nbst	c Nbst	c f	0.0	11.5	3.0	0.30	2.8	0.27
12	FF r c	c p c bc Cumb Acu Cu	c p bc Cu Acu b	b c	7.4	11.6	4.9	0.48	3.9	0.38
13	c b c bc x	bc Cist Ci so-ha b c r	c Nbst rr c	c rr	2.5	11.7	0.0	0.00	0.0	0.00
14	rr c	c d c Nbst	c Stcu Nbst D _o c	c	7.2	11.7	8.5	0.83	8.0	0.78
15	c b	b c Stcu m bc b	b bc Frcu b	b bc	9.4	11.8	9.8	0.95	8.8	0.86
16	b bc x	bc c Nbst r _o c	c Nbst r _o c r	rr c r c	0.0	11.8	0.0	0.00	0.0	0.00
17	c ir _o	c Nbst ir _o	c Nbst r id	c id	0.2	11.9	0.5	0.05	0.4	0.04
18	c ir _o c	c b c Nbst	c Nbstr c r c	c b	6.6	12.0	6.0	0.61	5.8	0.59
19	b c rr	c rr c Nbst	c Nbstr c rr	r _o c r c	2.0	12.0	0.0	0.00	0.0	0.00
20	c b x	b Ci Frcu so-ha b	b bc Cu Acu	bc c lu-ha c	10.3	12.1	0.0	0.00	0.0	0.00
21	c x	c Acu Ci so-ha c Ast	c Ast	c rr	5.0	12.2	0.0	0.00	0.0	0.00
22	rr c	c Nbst	c	c	0.4	12.2	3.0	0.31	1.1	0.11
23	c	c Stcu	c r c r R	r c b	0.0	12.3	8.9	0.91	8.9	0.91
24	b c b	b c Cu Stcu	c r _o bc b	b	6.1	12.4	9.0	1.00	9.0	1.00
25	b x	b Frcu c	c	c ir c	7.2	12.4	0.0	0.00	0.0	0.00
26	c	c Nbst ir _o	c Nbst ir _o r	rr bc b	0.0	12.5	6.0	0.66	6.0	0.66
27	b c	c Nbst r _o r c	c bc b	b c b	1.0	12.5	9.0	1.00	9.0	1.00
28	b x	b c Cu Stcu	c Nbst	s c	9.6	12.6	8.2	0.91	7.7	0.85
29	c x	c Acu Ast	c Nbst r _o r _o r	rr r _o r	0.5	12.7	0.0	0.00	0.0	0.00
30	r c	c bc Acu Cu Stcu	bc	b	7.2	12.7	9.0	1.00	9.0	1.00
31	b x bc	bc Cist so-ha c Ast	c Nbst ir	c b	0.2	12.8	6.8	0.80	6.1	0.72
Means	-	-	-	-	3.9	11.8	4.0	0.41	3.5	0.36

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH															
	Eye Readings made at 09 00 hours						Degree of Humidity (Saturation = 100)	Temperature of Radiation		Rainfall (Thrown back)	Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky			
	Temperature of the Air							Highest in Sun's Rays (Thrown back)	Lowest on the Grass				Polaris		δ Ursæ Minoris	
	Barometer Corrected and Reduced to 32° Fahrenheit	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb							Dura- tion	Frac- tion of total Exposure	Dura- tion	Frac- tion of total Exposure
	in.	°	°	°	°	°		°	°	in.	hours	hours	hours		hours	
Apr. 1	29.330	52.3	40.0	12.3	46.2	43.2	77	103.3	34.1	0.200	2.3	12.9	2.4	0.28	1.3	0.15
2	29.538	50.4	37.8	12.6	43.8	39.8	68	92.8	32.2	0.000	4.4	12.9	7.3	0.84	7.1	0.81
3	29.948	53.6	36.3	17.3	46.2	41.6	65	108.3	28.3	0.050	5.4	13.0	3.6	0.41	1.4	0.16
4	29.648	54.0	43.9	10.1	48.7	47.3	89	100.0	39.2	0.230	2.6	13.1	8.6	0.98	8.6	0.98
5	29.946	56.6	37.4	19.2	47.6	42.9	65	113.3	30.0	0.204	8.8	13.2	4.9	0.56	4.2	0.48
6	29.614	57.5	40.2	17.3	49.2	48.3	93	102.3	29.2	0.208	0.1	13.2	1.2	0.14	0.5	0.06
7	29.237	50.0	40.7	9.3	46.2	41.0	60	105.3	37.1	0.437	4.5	13.3	0.0	0.00	0.0	0.00
8	29.377	52.4	37.4	15.0	45.6	41.0	65	103.8	35.0	0.478	4.7	13.3	0.0	0.00	0.0	0.00
9	28.906	46.0	42.3	3.7	43.6	40.9	78	93.3	39.3	0.118	0.7	13.4	6.8	0.83	6.7	0.81
10	29.530	49.0	38.3	10.7	44.8	39.0	55	104.9	32.4	0.068	5.4	13.5	3.9	0.47	3.8	0.46
11	29.890	51.0	33.7	17.3	42.4	37.0	55	105.0	25.6	0.000	7.5	13.5	4.6	0.56	2.9	0.36
12	29.715	54.3	41.4	12.9	50.0	45.9	71	102.1	29.4	0.320	0.8	13.6	0.0	0.00	0.0	0.00
13	29.533	53.7	36.8	16.9	40.9	39.4	87	116.0	35.4	0.020	4.4	13.7	5.5	0.66	5.2	0.63
14	29.849	48.8	37.0	11.8	42.8	37.7	58	103.3	30.8	0.000	5.7	13.7	7.5	1.00	7.5	1.00
15	30.114	52.9	33.2	19.7	46.7	40.1	51	103.5	24.2	0.000	5.1	13.8	3.6	0.48	3.5	0.47
16	29.813	52.2	40.8	11.4	49.7	44.9	66	82.3	33.6	0.006	0.6	13.9	7.4	0.98	7.3	0.97
17	30.029	55.8	36.7	19.1	44.7	37.9	47	112.1	28.1	0.000	10.8	13.9	7.3	0.98	4.8	0.64
18	29.851	56.2	37.4	18.8	47.5	40.7	50	117.9	25.0	0.000	7.0	14.0	1.3	0.18	0.4	0.05
19	29.818	55.7	43.6	12.1	49.3	41.4	44	118.9	38.4	0.000	5.3	14.1	7.2	0.96	6.8	0.91
20	29.931	57.5	40.0	17.5	46.2	42.3	70	115.6	35.0	0.000	8.7	14.1	5.8	0.78	5.7	0.76
21	30.021	49.0	36.7	12.3	43.2	38.5	61	109.9	32.2	0.000	8.3	14.2	3.8	0.55	2.3	0.33
22	30.129	51.3	38.0	13.3	44.4	39.3	59	116.3	30.2	0.000	11.5	14.2	..	..	..	..
23	30.081	70.4	36.8	33.6	46.7	44.8	85	122.7	25.6	0.000	7.6	14.3	6.9	0.99	6.7	0.96
24	30.046	73.3	38.8	34.5	61.2	51.5	47	127.7	27.1	0.000	11.4	14.4	7.0	1.00	7.0	1.00
25	29.975	73.6	39.2	34.4	62.6	50.9	39	128.3	26.9	0.000	11.8	14.4	7.0	1.00	7.0	1.00
26	29.739	58.4	42.7	15.7	55.2	50.1	68	94.1	28.7	0.000	2.1	14.5	0.1	0.02	0.0	0.00
27	29.809	51.6	39.8	11.8	43.3	39.1	66	108.7	36.8	0.012	1.1	14.6	4.0	0.58	3.6	0.51
28	29.934	47.4	37.8	9.6	44.1	39.1	60	99.5	32.7	0.004	1.7	14.6	2.2	0.34	1.2	0.18
29	29.878	50.6	35.2	15.4	43.4	38.9	63	110.0	27.8	0.302	0.8	14.7	0.0	0.00	0.0	0.00
30	29.850	50.0	36.0	14.0	42.0	40.0	83	108.6	33.3	0.154	2.4	14.7	3.5	0.54	3.1	0.47
Means	29.769	54.5	38.5	16.0	46.9	42.1	64.8	107.7	31.5	Sum 2.811	5.1	13.8	4.3	0.56	3.7	0.49

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX					
	Clouds and Weather				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky			
	0 ^h to 6 ^h	6 ^h to 12 ^h	12 ^h to 18 ^h	18 ^h to 24 ^h			Polaris	δ Ursae Minoris		
							Dura- tion	Frac-tion of total Exposure	Dura- tion	
Apr. 1	b c	c Nbst r _o t R _c Cumb Cu	c Stcu Nbst r bc	bc p c	3.5	12.9	2.9	0.35	1.5	0.18
2	c r c b	b c Stcu	c Cu Stcu	c b	7.9	12.9	6.1	0.72	5.3	0.62
3	b x bc	bc Ou Frcu	bc c Stcu	c bc c	7.2	13.0	2.7	0.32	1.5	0.18
4	c ir	rr Nbst	r c bc Stcu Ci b	b	2.2	13.1	8.5	1.00	8.5	1.00
5	b	b Frcu	b Frcu bc	b bc	10.8	13.1	5.8	0.68	4.9	0.57
6	bc c rr	rr c Nbst	c Nbst d _o d _o	d _o rr c	0.0	13.2	0.1	0.01	0.1	0.01
7	c p c	c bc c Cu Ci p	c q h r t l c p c	c rr c	6.6	13.3	1.7	0.21	0.7	0.09
8	c	c Nbst	c Ou Stcu c r _o	c r _o c rr	7.9	13.3	0.0	0.00	0.0	0.00
9	rr c r	r c Nbst Cumb	c Nbst r _o r _o rr	r c b	0.7	13.4	7.0	0.85	6.9	0.84
10	b c b	b c Cu Cumb p	c Cumb p h c	c p c	7.5	13.4	2.1	0.26	2.0	0.24
11	c b x	b bc Cu Frcu	bc Cu Stcu	bc b c	8.2	13.5	6.6	0.80	5.3	0.64
12	c b c	c Ci Cu Ast	c Ast	c	0.3	13.6	0.0	0.00	0.0	0.00
13	c rr	c Nbst c Cu	c bc Cu Cumb p c	c p b c b	5.8	13.6	8.3	1.00	8.3	1.00
14	b c	c b c Cu Cumb	c Cumb p c	c b	10.7	13.7	7.5	1.00	7.5	1.00
15	b x	c bc Ci Cist so-ha c	c b	b c	11.5	13.8	4.5	0.60	4.4	0.58
16	c	c Nbst d _o d _o	c Nbst d _o d _o c	c b	3.2	13.8	7.4	0.98	7.2	0.96
17	b c b x	b	b	b bc	12.9	13.9	7.5	1.00	6.8	0.91
18	b c x	bc Cicu Ci Acu	bc Ci Acu c	c	10.2	14.0	5.7	0.76	4.7	0.63
19	c p c	c bc Cu Acu Ci	bc Ou Acu Ci c	c b	0.0	14.0	0.0	0.00	0.0	0.00
20	b c	c Stcu b	b	b	10.7	14.1	7.5	1.00	7.5	1.00
21	b bc c	c Stcu	c Stcu bc b	b c	10.7	14.1	7.0	1.00	7.0	1.00
22	c b	b Frcu Acu	b	b	11.1	14.2	7.0	1.00	7.0	1.00
23	b c x f	f b Ci	b Ci	b	13.0	14.3	7.0	1.00	7.0	1.00
24	b x	b x z _o	b z _o	b z _o	13.3	14.3	7.0	1.00	7.0	1.00
25	b x z _o	b z _o	b z _o	b	13.3	14.4	7.0	1.00	7.0	1.00
26	b bc	bc b z _o c	c r _o c	c r _o c	8.5	14.4	0.0	0.00	0.0	0.00
27	c	c Stcu Nbst	c Cumb p	c p b c p	2.5	14.5	6.0	0.86	5.7	0.81
28	c p	c Ou Cumb	r _o c r _o c	c b	3.2	14.6	3.5	0.54	3.5	0.53
29	b c x	bc Ast Cist so-ha c Stcu	c Stcu Nbst	c R c	1.7	14.6	2.6	0.40	2.3	0.35
30	c r c	c rs r c Nbst p c	c Nbst Cumb p	c b	4.3	14.7	0.6	0.09	0.4	0.06
Means	-	-	-	-	7.0	13.8	4.7	0.61	4.3	0.57

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH									
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine	Sun above Horizon
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb					
May 1	o	o	o	o	o	92	37.1	inches	hours	hours
2	54.7	40.6	14.1	43.2	42.2	49	41.2	Trace	9.6	14.8
3	58.0	42.8	15.2	53.2	45.4	71	30.6	0.07	0.1	14.9
4	61.3	41.3	20.0	53.1	48.7	95	42.6	0.19	0.5	14.9
5	54.5	46.4	8.1	47.7	47.1	78	29.7	0.11	2.3	15.0
6	58.6	41.7	16.9	53.2	49.9	83	33.4	Trace	0.3	15.1
7	57.8	42.8	15.0	49.1	46.7	84	44.2	0.01	0.0	15.1
8	49.5	44.8	4.7	45.9	43.9	84	36.6	0.01	0.2	15.2
9	49.4	38.8	10.6	40.2	38.4	94	40.4	0.06	0.0	15.2
10	49.6	40.0	9.6	43.5	42.8	79	43.5	0.00	8.1	15.3
11	58.4	43.2	15.2	48.6	45.7	74	36.4	0.00	7.0	15.4
12	58.8	41.3	17.5	51.8	46.5	64	29.6	0.00	11.9	15.4
13	63.1	38.2	24.9	51.1	44.2	53	35.6	0.00	3.2	15.5
14	58.9	46.2	12.7	55.3	49.3	66	37.9	0.00	1.0	15.5
15	51.8	43.8	8.0	45.9	41.5	74	36.3	0.12	0.0	15.6
16	57.4	45.2	12.2	51.5	47.7	68	47.1	0.00	1.7	15.6
17	52.7	48.3	4.4	49.4	44.9	58	38.4	0.10	6.8	15.7
18	55.7	41.8	13.9	52.5	46.2	69	41.1	0.02	3.1	15.7
19	61.5	45.1	16.4	55.7	50.8	82	43.6	0.21	0.4	15.8
20	61.7	49.4	12.3	54.8	52.1	82	45.3	0.08	4.4	15.8
21	66.2	48.5	17.7	55.8	53.0	61	43.5	0.12	11.8	15.9
22	66.7	48.7	18.0	56.9	50.4	84	32.6	0.01	6.9	15.9
23	62.0	43.3	18.7	55.4	52.8	62	41.6	0.27	1.4	16.0
24	69.7	49.7	20.0	60.5	53.9	95	46.2	Trace	4.6	16.0
25	72.7	53.7	19.0	56.9	56.1	63	42.6	0.00	8.9	16.0
26	70.2	51.4	18.8	64.7	57.7	67	43.5	0.59	0.0	16.1
27	62.8	51.8	11.0	58.3	52.7	82	45.6	0.00	1.7	16.1
28	57.3	48.3	9.0	52.0	49.4	76	35.4	0.01	2.8	16.1
29	65.4	44.0	21.4	57.1	53.2	80	46.4	0.00	1.1	16.2
30	58.7	50.3	8.4	52.4	49.5	75	43.2	0.00	6.9	16.2
31	60.0	45.1	14.9	48.5	45.1	54	38.3	0.00	13.7	16.3
Means	59.6	45.2	14.4	52.3	48.3	73.7	39.7	Sum 1.99	3.9	15.6

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX							
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky					
	Polaris		δ Ursæ Minoris				Polaris		δ Ursæ Minoris			
	Dura- tion	Fraction of total Exposure	Dura- tion	Fraction of total Exposure			Dura- tion	Fraction of total Exposure	Dura- tion	Fraction of total Exposure		
May 1	hours		hours		hours	hours	hours		hours			
1	0.0	0.00	0.0	0.00	5.7	14.7	0.0	0.00	0.0	0.00		
2	5.7	0.88	5.2	0.80	11.3	14.8	4.7	0.72	4.3	0.65		
3	0.6	0.09	0.1	0.01	3.3	14.8	0.0	0.00	0.0	0.00		
4	6.2	0.95	6.1	0.94	3.1	14.9	3.8	0.58	3.3	0.52		
5	3.2	0.53	3.1	0.51	7.0	15.0	5.8	0.93	5.3	0.85		
6	0.1	0.01	0.1	0.01	3.6	15.0	0.9	0.15	0.8	0.13		
7	0.2	0.04	0.1	0.02	0.0	15.1	0.0	0.00	0.0	0.00		
8	0.0	0.00	0.0	0.00	0.3	15.1	0.0	0.00	0.0	0.00		
9	0.0	0.00	0.0	0.00	0.3	15.2	0.0	0.00	0.0	0.00		
10	3.7	0.62	3.2	0.54	8.7	15.2	6.3	1.00	6.3	1.00		
11	6.0	1.00	6.0	1.00	13.0	15.3	6.3	1.00	6.3	1.00		
12	5.4	0.98	4.3	0.78	13.9	15.3	5.7	1.00	5.7	1.00		
13	0.3	0.06	0.3	0.05	5.4	15.4	1.5	0.26	1.1	0.18		
14	0.8	0.15	0.6	0.12	1.0	15.4	0.0	0.00	0.0	0.00		
15	0.0	0.00	0.0	0.00	0.9	15.5	0.0	0.00	0.0	0.00		
16	0.6	0.12	0.5	0.10	5.0	15.5	2.1	0.37	1.9	0.33		
17	0.2	0.04	0.1	0.02	9.8	15.6	0.0	0.00	0.0	0.00		
18	0.0	0.00	0.0	0.00	8.7	15.6	1.8	0.32	1.5	0.26		
19	0.0	0.00	0.0	0.00	1.0	15.7	0.0	0.00	0.0	0.00		
20	0.0	0.00	0.0	0.00	7.0	15.7	0.0	0.00	0.0	0.00		
21	3.6	0.71	3.6	0.71	14.3	15.8	3.3	0.63	3.1	0.59		
22	4.8	0.97	4.8	0.97	6.4	15.8	3.3	0.63	2.3	0.43		
23	2.9	0.59	2.7	0.53	3.4	15.8	4.3	0.83	4.0	0.76		
24	0.8	0.16	0.5	0.10	7.7	15.9	0.0	0.00	0.0	0.00		
25	1.2	0.25	1.1	0.21	12.9	15.9	0.0	0.00	0.0	0.00		
26	0.0	0.00	0.0	0.00	0.0	16.0	0.0	0.00	0.0	0.00		
27	3.7	0.77	3.3	0.70	7.0	16.0	4.4	0.89	3.3	0.66		
28	2.6	0.54	2.4	0.51	7.2	16.0	1.4	0.28	0.4	0.07		
29	2.8	0.59	2.5	0.52	2.0	16.1	3.8	0.76	2.5	0.51		
30	4.7	1.00	4.7	1.00	14.4	16.1	5.0	1.00	5.0	1.00		
31	4.7	0.98	4.7	0.98	13.9	16.2	5.0	1.00	5.0	1.00		
Means	2.1	0.39	1.9	0.36	6.4	15.5	2.2	0.40	2.0	0.35		

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH									
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine	Sun above Horizon
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb					
June 1	o	o	o	o	o	59	41.2	0.00	12.5	16.3
2	67.7	46.9	20.8	60.3	53.1	63	37.2	0.00	10.8	16.3
3	68.3	44.0	24.3	55.8	49.8	67	39.9	0.00	12.3	16.4
4	71.6	40.4	31.2	60.7	54.8	75	35.7	0.00	8.8	16.4
5	65.7	46.3	19.4	51.2	47.7	56	40.6	0.00	12.2	16.4
6	73.0	47.7	25.3	58.1	50.7	59	35.3	0.00	13.0	16.4
7	70.8	47.7	23.1	63.0	55.3	70	44.8	0.00	4.1	16.5
8	57.5	49.4	8.1	52.2	48.0	56	39.6	0.00	13.5	16.5
9	65.2	44.8	20.4	55.4	48.3	62	30.4	0.09	4.8	16.5
10	65.7	43.8	25.9	58.9	52.5	67	41.7	0.01	9.6	16.5
11	69.7	49.3	23.1	59.0	53.4	58	39.0	0.38	12.3	16.5
12	72.4	48.8	27.0	64.7	56.7	86	54.6	0.00	7.6	16.6
13	70.0	59.3	10.7	64.2	61.6	68	52.3	0.00	4.4	16.6
14	68.7	57.2	11.5	64.5	58.4	68	47.4	0.06	3.8	16.6
15	74.6	55.6	19.0	67.4	61.1	68	51.6	0.00	11.5	16.6
16	74.6	57.0	17.6	65.3	59.1	53	39.2	0.00	12.2	16.6
17	73.7	51.3	22.4	64.5	55.3	53	38.7	0.00	11.0	16.6
18	71.4	49.6	21.8	61.8	55.5	59	34.2	Trace	8.7	16.6
19	70.4	47.7	22.7	62.6	54.5	55	33.0	Trace	9.4	16.6
20	72.2	47.1	25.1	64.2	57.5	65	34.2	0.00	6.7	16.6
21	73.5	45.9	27.6	68.3	57.8	50	31.6	0.42	10.8	16.6
22	70.8	58.8	12.0	60.9	58.7	87	56.5	Trace	3.0	16.6
23	65.3	55.5	9.8	56.6	55.0	90	54.4	0.00	0.0	16.6
24	70.5	55.7	14.8	63.7	56.9	64	53.3	0.05	2.7	16.6
25	71.6	47.5	24.1	63.8	56.1	59	38.1	0.14	10.0	16.6
26	73.5	49.2	10.3	53.9	50.6	78	42.6	0.10	0.5	16.6
27	67.4	53.0	14.4	59.1	53.2	65	51.3	0.00	0.9	16.6
28	65.5	55.6	9.9	57.3	54.1	80	53.5	Trace	0.0	16.6
29	68.6	51.4	17.2	62.4	58.4	77	41.4	0.00	6.9	16.6
30	72.1	45.5	26.6	60.3	53.4	61	34.8	0.00	12.5	16.6
Means	69.5	49.9	19.6	60.8	54.7	65.9	42.3	Sum 1.25	7.9	16.5

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX							
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky					
	Polaris		δ Ursæ Minoris				Polaris		δ Ursæ Minoris			
	Dura- tion	Fraction of total Exposure	Dura- tion	Fraction of total Exposure			Dura- tion	Fraction of total Exposure	Dura- tion	Fraction of total Exposure		
June 1	hours		hours		hours	hours	hours		hours			
2	4.7	1.00	4.7	1.00	13.6	16.2	5.0	1.00	5.0	1.00		
3	4.2	0.93	4.1	0.90	13.9	16.2	4.3	0.90	3.9	0.81		
4	4.5	1.00	4.5	1.00	13.8	16.2	4.7	1.00	4.7	1.00		
5	4.5	1.00	4.5	1.00	9.8	16.3	4.7	1.00	4.7	1.00		
6	4.5	1.00	1.7	0.39	14.2	16.3	4.7	1.00	4.4	0.92		
7	3.7	0.82	3.6	0.80	13.8	16.3	4.7	1.00	4.7	1.00		
8	4.5	1.00	4.5	1.00	14.9	16.4	4.7	1.00	4.7	1.00		
9	3.6	0.80	3.5	0.77	9.9	16.4	1.4	0.32	1.2	0.27		
10	1.5	0.33	1.4	0.32	12.7	16.4	3.9	0.86	3.9	0.86		
11	0.2	0.05	0.2	0.05	12.4	16.4	0.5	0.11	0.3	0.06		
12	0.0	0.00	0.0	0.00	5.5	16.5	0.0	0.00	0.0	0.00		
13	2.6	0.58	2.4	0.53	6.2	16.5	4.5	1.00	4.5	1.00		
14	0.0	0.00	0.0	0.00	10.8	16.5	0.0	0.00	0.0	0.00		
15	4.1	0.91	4.0	0.89	10.9	16.5	4.3	0.96	4.2	0.94		
16	4.4	0.98	4.3	0.96	12.5	16.5	2.0	0.45	1.8	0.40		
17	4.5	1.00	4.2	0.93	12.2	16.5	4.5	1.00	4.4	0.97		
18	4.5	1.00	4.5	1.00	11.2	16.5	4.5	1.00	4.5	1.00		
19	4.5	1.00	4.5	1.00	15.0	16.5	4.5	1.00	4.5	1.00		
20	4.5	1.00	4.5	1.00	14.8	16.5	4.5	1.00	4.5	1.00		
21	0.0	0.00	0.0	0.00	12.9	16.5	0.0	0.00	0.0	0.00		
22	0.0	0.00	0.0	0.00	6.8	16.6	0.0	0.00	0.0	0.00		
23	0.0	0.00	0.0	0.00	0.0	16.5	0.0	0.00	0.0	0.00		
24	3.7	0.83	2.8	0.61	1.1	16.5	1.6	0.35	1.0	0.22		
25	0.1	0.01	0.0	0.00	9.4	16.5	1.9	0.43	1.7	0.37		
26	0.0	0.00	0.0	0.00	3.4	16.5	0.0	0.00	0.0	0.00		
27	0.0	0.00	0.0	0.00	4.4	16.5	3.1	0.69	2.5	0.54		
28	1.3	0.28	0.8	0.18	0.3	16.5	0.7	0.16	0.6	0.13		
29	4.5	1.00	4.5	1.00	6.6	16.5	4.5	1.00	4.5	1.00		
30	4.7	1.00	4.0	0.85	14.4	16.5	4.5	1.00	4.5	1.00		
Means	2.8	0.62	2.6	0.57	9.8	16.4	2.9	0.64	2.8	0.62		

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH								
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb				
July 1	°	°	°	°	°	67	42.1	0.00	hours
2	80.7	50.5	30.2	67.0	60.5	58	44.5	0.00	10.3
3	81.9	56.1	25.8	70.6	61.7	57	49.0	0.01	16.6
4	81.4	61.2	20.2	71.6	62.3	57	49.0	0.00	11.9
5	67.5	57.8	9.7	64.2	59.9	77	49.0	0.00	3.3
6	69.0	51.2	17.8	61.2	52.7	53	40.1	0.02	16.5
7	75.4	55.7	19.7	68.5	62.2	69	50.8	0.00	8.6
8	74.9	56.3	18.6	66.1	59.7	67	43.5	0.00	5.4
9	76.0	55.6	20.4	68.4	61.9	68	42.2	0.00	5.0
10	74.4	54.3	20.1	67.0	57.3	52	44.0	0.13	5.9
11	74.4	59.3	17.0	66.8	61.6	73	56.6	0.00	5.2
12	76.3	59.1	13.4	66.0	60.7	73	51.6	0.03	16.4
13	70.9	54.8	16.1	63.1	56.0	62	47.8	0.44	7.0
14	70.3	50.3	20.0	60.3	56.5	78	41.4	0.00	16.3
15	67.8	47.5	20.3	60.3	55.1	70	37.1	0.00	1.7
16	69.0	52.9	16.1	60.8	56.8	77	42.7	0.00	3.4
17	72.5	52.4	20.8	65.4	56.9	56	38.6	0.00	16.2
18	81.3	52.9	28.4	70.3	61.4	58	40.6	0.00	11.7
19	72.8	59.8	13.0	69.2	63.0	70	49.2	Trace	16.1
20	81.7	60.2	21.5	67.9	63.2	76	52.2	0.00	7.7
21	78.3	59.4	18.9	71.2	63.7	64	45.2	0.00	7.4
22	75.2	55.0	20.2	68.6	61.6	65	41.3	Trace	12.7
23	78.8	54.4	24.4	68.0	60.6	63	39.2	0.70	3.8
24	59.9	58.2	1.7	59.2	57.7	91	47.1	0.03	0.0
25	65.3	53.0	12.3	57.8	52.4	68	44.2	0.00	1.6
26	74.6	50.0	24.6	61.3	55.2	66	38.4	0.00	6.3
27	75.2	55.2	22.8	65.0	59.7	72	47.6	Trace	4.8
28	75.7	60.2	15.5	67.4	60.4	65	56.1	0.00	1.6
29	84.4	56.9	27.5	71.3	62.3	58	46.2	0.00	15.7
30	70.6	59.4	11.2	63.6	57.4	67	50.6	0.00	14.1
31	74.8	52.8	22.0	65.2	59.4	70	41.7	0.14	15.6
Means	72.7	62.9	9.8	69.4	66.4	85	56.6	0.01	0.5
	74.4	55.7	18.7	65.9	59.6	67.6	45.7	Sum 1.51	16.1

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX						
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky				
	Polaris		δ Ursæ Minoris				Polaris		δ Ursæ Minoris		
	Dura- tion	Frac-tion of total Exposure	Dura- tion	Frac-tion of total Exposure			Dura- tion	Frac-tion of total Exposure	Dura- tion		
July 1	hours 4.7	1.00	hours 4.7	1.00	hours 12.7	hours 16.5	hours 3.4	0.76	hours 3.2	0.71	
2	1.9	0.40	1.7	0.35	14.2	16.5	4.5	1.00	4.5	1.00	
3	4.7	1.00	4.6	0.99	14.7	16.4	4.5	1.00	4.5	1.00	
4	2.5	0.53	2.3	0.48	5.6	16.4	2.0	0.45	1.3	0.30	
5	0.0	0.00	0.0	0.00	9.0	16.4	0.0	0.00	0.0	0.00	
6	4.7	0.99	4.7	0.99	9.0	16.4	3.7	0.83	3.5	0.78	
7	..	..	..	..	12.1	16.3	4.3	0.91	3.1	0.66
8	2.9	0.59	2.1	0.42	8.8	16.3	1.9	0.40	1.2	0.25	
9	0.0	0.00	0.0	0.00	3.7	16.3	0.0	0.00	0.0	0.00	
10	1.5	0.30	1.4	0.27	0.9	16.3	1.8	0.38	1.7	0.36	
11	..	..	..	..	4.3	16.2	2.5	0.52	1.8	0.38
12	1.3	0.27	1.0	0.20	7.1	16.2	1.9	0.39	1.9	0.39	
13	5.0	1.00	5.0	1.00	13.5	16.2	4.5	0.94	4.3	0.90	
14	3.2	0.62	2.9	0.55	4.7	16.1	1.6	0.31	1.2	0.24	
15	3.7	0.70	3.3	0.63	6.5	16.1	1.5	0.30	1.1	0.21	
16	5.3	1.00	5.3	1.00	13.3	16.1	5.0	1.00	5.0	1.00	
17	4.9	0.93	4.6	0.88	12.7	16.0	5.0	1.00	5.0	1.00	
18	0.9	0.17	0.7	0.13	5.0	16.0	2.3	0.46	1.7	0.33	
19	5.3	1.00	5.2	0.98	5.3	16.0	5.0	1.00	5.0	1.00	
20	3.4	0.65	3.3	0.63	10.6	15.9	5.0	1.00	5.0	1.00	
21	4.9	0.86	4.8	0.84	13.8	15.9	5.0	0.91	4.0	0.73	
22	0.8	0.15	0.7	0.12	5.4	15.9	0.3	0.05	0.1	0.02	
23	0.0	0.00	0.0	0.00	1.0	15.8	0.0	0.00	0.0	0.00	
24	..	..	..	..	5.9	15.8	2.8	0.52	2.2	0.39
25	3.5	0.61	2.5	0.42	10.8	15.7	4.8	0.88	4.2	0.76	
26	0.1	0.01	0.0	0.00	5.7	15.7	0.0	0.00	0.0	0.00	
27	3.6	0.62	3.4	0.60	5.3	15.6	4.4	0.81	3.1	0.57	
28	4.4	0.71	2.2	0.36	14.1	15.6	4.3	0.75	3.7	0.65	
29	5.5	0.89	5.3	0.84	0.0	15.5	2.0	0.35	1.1	0.19	
30	..	..	..	..	11.7	15.5	3.6	0.62	3.1	0.54
31	0.4	0.06	0.2	0.04	1.4	15.4	0.0	0.00	0.0	0.00	
Means	2.9	0.56	2.7	0.51	8.0	16.0	2.8	0.56	2.5	0.49	

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH									
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine	
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb					
Aug. 1	°	°	°	°	°	73	55.2	0.00	3.8	15.5
2	79.0	54.4	24.6	69.4	61.3	61	41.6	0.00	13.6	15.4
3	79.3	56.7	22.6	68.4	61.3	65	46.3	Trace	13.0	15.4
4	68.8	56.3	12.5	65.4	61.3	78	44.6	0.01	0.4	15.3
5	71.1	54.0	17.1	66.7	60.1	66	43.9	0.01	5.0	15.3
6	68.7	59.3	9.4	63.3	61.0	87	55.3	0.72	0.2	15.2
7	72.3	56.4	15.9	60.4	58.7	90	51.8	0.01	4.4	15.1
8	71.3	52.3	19.0	65.0	56.9	58	45.2	0.00	4.0	15.1
9	67.7	54.4	13.3	58.1	54.9	80	46.0	0.33	1.6	15.0
10	71.4	53.4	18.0	60.2	57.5	84	45.2	Trace	3.7	15.0
11	62.3	51.4	10.9	60.0	56.7	81	43.8	0.47	0.0	14.9
12	66.4	57.0	9.4	59.0	55.3	78	56.1	0.01	6.0	14.9
13	66.7	49.0	17.7	61.0	54.3	62	41.0	Trace	7.4	14.8
14	64.6	50.3	14.3	57.4	54.3	81	41.7	0.00	0.8	14.7
15	68.3	53.3	15.0	61.0	52.3	52	46.2	0.00	5.8	14.7
16	70.8	52.3	18.5	63.3	54.1	51	42.6	Trace	7.5	14.6
17	68.5	51.7	16.8	61.7	58.0	79	42.5	0.03	2.0	14.6
18	72.3	51.3	21.0	63.7	56.7	63	40.7	0.16	10.8	14.5
19	74.4	58.2	16.2	66.2	60.9	73	52.7	0.19	6.4	14.4
20	73.5	51.3	22.2	62.8	57.5	71	43.2	Trace	9.9	14.4
21	71.8	49.8	22.0	64.2	58.1	68	39.6	0.02	6.8	14.3
22	71.9	58.9	13.0	62.3	60.6	91	57.1	0.01	2.7	14.3
23	73.0	50.6	22.4	62.6	56.1	65	40.5	Trace	6.4	14.2
24	69.6	52.3	17.3	64.0	59.8	77	43.5	0.01	0.8	14.1
25	64.7	50.2	14.5	57.8	53.4	73	41.1	0.27	0.3	14.1
26	65.8	53.6	12.2	58.1	54.7	79	48.8	0.20	6.1	14.0
27	65.6	50.8	14.8	58.9	54.3	72	45.0	0.07	5.8	14.0
28	70.2	55.8	14.4	65.6	62.1	81	54.2	0.08	0.1	13.9
29	70.2	60.6	9.6	64.0	58.1	69	56.2	Trace	9.4	13.8
30	63.9	55.8	8.1	61.9	58.5	81	49.2	0.37	2.3	13.8
31	65.7	52.7	13.0	59.4	56.9	85	48.0	0.19	2.9	13.7
Means	69.9	54.0	15.9	62.5	57.6	73.4	46.7	Sum 3.16	4.8	14.6

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX							
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky					
	Polaris		δ Ursæ Minoris				Polaris		δ Ursæ Minoris			
	Duration	Fraction of total Exposure	Duration	Fraction of total Exposure			Duration	Fraction of total Exposure	Duration	Fraction of total Exposure		
Aug. 1	hours	0.94	hours	0.90	hours	hours	hours	0.96	hours	0.93		
2	6.3	1.00	6.3	1.00	14.3	15.3	5.6	0.98	5.6	0.98		
3	..	..	..	..	14.2	15.3	5.7	1.00	5.7	1.00
4	2.8	0.41	2.6	0.38	2.7	15.2	5.3	0.84	5.0	0.80		
5	0.1	0.02	0.1	0.02	3.7	15.2	0.0	0.00	0.0	0.00		
6	1.0	0.15	0.6	0.09	0.1	15.1	..	..	..	..
7	4.9	0.73	4.3	0.63	9.0	15.1	2.9	0.46	1.8	0.29		
8	5.9	0.87	5.3	0.79	6.4	15.0	1.1	0.17	0.9	0.15		
9	3.3	0.49	3.1	0.46	6.1	15.0	0.7	0.11	0.5	0.07		
10	5.0	0.74	4.9	0.72	6.5	14.9	5.8	0.93	5.4	0.86		
11	0.0	0.00	0.0	0.00	0.0	14.9	0.0	0.00	0.0	0.00		
12	6.2	0.86	6.1	0.85	7.5	14.8	6.7	1.00	6.7	1.00		
13	4.5	0.62	4.2	0.58	7.5	14.8	6.5	0.97	6.5	0.97		
14	1.5	0.20	1.0	0.14	4.6	14.7	0.0	0.00	0.0	0.00		
15	0.3	0.05	0.0	0.00	4.6	14.6	4.3	0.64	2.2	0.32		
16	4.5	0.62	2.3	0.31	6.3	14.6	6.1	0.90	3.9	0.57		
17	5.6	0.77	5.1	0.70	0.8	14.5	6.7	1.00	6.7	0.99		
18	..	..	..	..	11.2	14.5	3.1	0.43	2.4	0.33
19	5.0	0.64	4.9	0.63	4.3	14.4	6.2	0.86	6.1	0.84		
20	7.7	1.00	7.7	1.00	12.1	14.3	7.2	0.99	7.2	0.99		
21	0.0	0.00	0.0	0.00	8.7	14.3	0.0	0.00	0.0	0.00		
22	..	..	..	..	2.4	14.2	6.5	0.89	5.6	0.77
23	5.1	0.66	3.9	0.51	8.0	14.1	6.0	0.83	5.5	0.75		
24	5.1	0.66	4.7	0.60	0.6	14.1	5.3	0.73	4.3	0.60		
25	0.0	0.00	0.0	0.00	1.8	14.0	1.5	0.19	1.0	0.13		
26	1.4	0.17	0.4	0.05	5.6	14.0	0.8	0.10	0.6	0.07		
27	0.0	0.00	0.0	0.00	4.3	13.9	0.0	0.00	0.0	0.00		
28	0.3	0.03	0.2	0.03	0.0	13.9	0.4	0.05	0.3	0.04		
29	6.9	0.82	6.5	0.77	9.8	13.8	7.1	0.89	6.5	0.82		
30	6.9	0.82	6.5	0.77	2.9	13.7	6.2	0.78	5.2	0.65		
31	8.5	1.00	8.5	1.00	6.7	13.7	6.9	0.86	6.3	0.79		
Means	3.7	0.51	3.4	0.46	5.7	14.6	4.0	0.59	3.6	0.52		

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH									
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine	
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb					
Sept. 1	o	o	o	o	o	73	41.4	0.62	4.3	13.6
2	65.6	48.8	16.8	56.2	54.0	86	43.2	Trace	2.9	13.6
3	72.4	47.7	24.7	60.0	54.4	68	39.6	0.21	8.2	13.5
4	76.2	57.2	19.0	66.9	65.1	90	56.1	0.00	6.2	13.5
5	72.7	63.0	9.7	68.2	64.0	79	59.9	0.00	0.1	13.4
6	74.3	62.6	11.7	68.2	64.9	83	56.9	0.25	0.1	13.3
7	68.7	59.2	9.5	61.4	60.3	93	59.5	Trace	0.1	13.3
8	68.0	58.2	9.8	60.7	57.5	81	56.2	Trace	4.6	13.2
9	63.6	54.7	8.9	58.8	57.0	89	50.0	0.00	0.0	13.1
10	70.8	56.8	14.0	59.8	58.5	92	56.7	0.00	0.0	13.0
11	76.7	59.0	17.7	67.8	64.4	82	53.6	Trace	4.8	13.0
12	76.9	62.8	14.1	66.7	64.7	89	60.1	0.00	3.1	12.9
13	70.8	57.7	13.1	67.9	64.3	81	52.0	0.22	2.6	12.9
14	68.7	52.3	16.4	61.4	55.5	67	45.6	0.02	10.5	12.8
15	64.8	57.3	7.5	57.8	56.1	89	51.6	0.06	0.0	12.7
16	64.6	47.7	16.9	57.7	54.2	78	40.8	0.10	4.2	12.7
17	62.0	49.3	12.7	54.2	50.3	75	44.1	0.00	4.9	12.6
18	58.2	47.7	10.5	55.6	50.7	69	39.7	0.00	1.2	12.5
19	61.2	53.0	8.2	57.0	52.0	69	50.9	0.00	1.0	12.5
20	61.1	44.9	16.2	54.3	49.4	69	34.4	0.00	1.3	12.4
21	61.8	46.6	15.2	57.1	50.5	60	37.6	0.00	7.5	12.3
22	66.7	43.8	22.9	58.2	54.0	75	31.1	0.04	6.4	12.3
23	66.0	55.2	10.8	62.0	61.0	94	49.1	0.01	1.0	12.2
24	67.4	51.3	16.1	60.0	55.1	71	44.6	0.00	5.4	12.2
25	68.6	57.8	10.8	63.0	58.7	76	53.0	0.17	3.8	12.1
26	63.8	53.7	10.1	58.8	55.9	83	49.0	Trace	4.2	12.0
27	64.6	51.7	12.9	60.5	58.3	87	44.0	1.34	0.1	11.9
28	64.7	50.7	14.0	54.5	53.2	91	42.5	Trace	6.7	11.9
29	67.4	43.2	24.2	49.2	48.5	95	34.6	Trace	6.0	11.8
30	65.5	44.0	21.5	52.2	51.9	98	36.8	0.00	2.5	11.8
Means	67.3	52.9	14.4	59.9	56.7	81.1	47.2	Sum 3.04	3.5	12.7

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX							
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky					
	Polaris		δ Ursæ Minoris				Polaris		δ Ursæ Minoris			
	Dura- tion	Frac-tion of total Exposure	Dura- tion	Frac-tion of total Exposure			Dura- tion	Frac-tion of total Exposure	Dura- tion	Frac-tion of total Exposure		
Sept. 1	hours	0.34	0.5	0.05	hours	hours	hours	0.47	3.2	0.37		
2	6.8	0.78	6.7	0.77	1.4	13.6	7.0	0.83	6.8	0.80		
3	0.0	0.00	0.0	0.00	8.8	13.5	0.0	0.00	0.0	0.00		
4	0.5	0.06	0.2	0.03	0.0	13.4	0.0	0.00	0.0	0.00		
5	0.0	0.00	0.0	0.00	1.9	13.3	5.7	0.67	5.0	0.59		
6	0.5	0.06	0.3	0.03	10.6	13.3	5.2	0.61	3.9	0.45		
7	0.0	0.00	0.0	0.00	3.9	13.2	0.0	0.00	0.0	0.00		
8	3.6	0.39	3.4	0.37	1.0	13.2	2.7	0.30	2.5	0.28		
9	0.0	0.00	0.0	0.00	0.3	13.1	0.5	0.06	0.3	0.03		
10	1.4	0.15	0.0	0.00	0.0	13.0	1.6	0.19	0.0	0.00		
11	0.0	0.00	0.0	0.00	1.8	13.0	2.1	0.24	0.9	0.10		
12	6.2	0.67	4.6	0.50	1.7	12.9	2.5	0.29	1.9	0.21		
13	9.1	0.98	9.1	0.98	1.6	12.9	8.1	0.93	7.9	0.90		
14	4.3	0.47	3.4	0.37	9.6	12.8	7.5	0.85	6.3	0.72		
15	9.7	0.99	9.7	0.99	0.0	12.7	8.7	0.94	8.7	0.94		
16	2.8	0.29	1.6	0.16	6.0	12.6	3.0	0.32	2.9	0.31		
17	6.6	0.67	5.9	0.61	9.4	12.6	8.9	0.97	8.7	0.95		
18	0.0	0.00	0.0	0.00	1.6	12.5	1.1	0.12	0.7	0.08		
19	8.0	0.82	7.3	0.75	4.9	12.5	8.1	0.88	7.5	0.81		
20	3.1	0.31	2.9	0.30	4.8	12.4	7.9	0.86	7.8	0.85		
21	9.7	1.00	9.7	1.00	5.5	12.3	9.3	1.00	9.3	1.00		
22	0.3	0.03	0.0	0.00	7.7	12.3	2.2	0.22	1.2	0.12		
23	8.7	0.85	8.6	0.84	0.6	12.2	7.6	0.78	6.6	0.67		
24	3.6	0.35	2.6	0.25	4.0	12.1	8.7	0.89	8.0	0.82		
25	0.0	0.00	0.0	0.00	5.2	12.1	0.0	0.00	0.0	0.00		
26	9.1	0.89	7.5	0.73	6.3	12.0	5.4	0.55	4.3	0.44		
27	1.6	0.16	0.6	0.06	0.2	12.0	2.1	0.22	1.5	0.16		
28	10.3	1.00	10.3	1.00	7.9	11.9	9.7	1.00	9.7	1.00		
29	8.8	0.82	8.7	0.81	9.9	11.8	10.3	1.00	10.3	1.00		
30	1.3	0.12	0.8	0.08	8.4	11.8	8.3	0.81	6.9	0.67		
Means	4.0	0.41	3.5	0.36	4.3	12.7	4.9	0.53	4.4	0.48		

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH									
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine	
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb					
Oct. 1	°	°	°	°	°	85	50.7	0.02	0.0	11.7
2	60.3	51.8	8.5	57.2	54.9	89	56.1	0.00	0.0	11.6
3	60.8	56.7	4.1	58.1	56.2	83	55.0	Trace	0.0	11.6
4	60.0	57.0	3.0	58.2	55.4	92	39.4	0.00	0.2	11.5
5	56.8	48.9	7.9	49.4	48.3	80	45.2	Trace	0.1	11.4
6	57.4	49.1	8.3	53.7	50.8	87	45.4	0.00	5.5	11.4
7	63.2	52.7	10.5	56.2	54.1	97	33.0	Trace	6.0	11.3
8	59.5	42.2	17.3	51.4	50.9	98	32.7	Trace	6.1	11.3
9	65.8	44.2	21.6	48.5	48.3	88	27.9	Trace	9.3	11.2
10	61.5	39.7	21.8	50.6	48.9	83	27.7	Trace	9.2	11.1
11	62.4	41.9	20.5	50.6	48.2	92	26.6	Trace	5.6	11.0
12	62.0	36.7	25.3	45.3	44.3	69	28.7	0.01	8.9	11.0
13	57.5	40.8	16.7	47.0	42.9	94	43.6	0.01	0.0	10.9
14	65.4	47.0	18.4	53.4	52.5	95	51.0	Trace	0.1	10.9
15	61.7	53.1	8.6	56.6	55.9	98	40.5	Trace	0.9	10.8
16	61.0	49.3	11.7	50.8	50.5	97	39.1	0.04	0.0	10.7
17	52.6	44.8	7.8	45.0	44.7	97	31.1	Trace	0.3	10.7
18	58.0	42.2	15.8	50.2	49.8	83	32.4	0.03	1.9	10.6
19	57.6	41.8	15.8	49.0	46.6	84	33.3	0.00	1.9	10.5
20	54.8	44.8	10.0	50.1	47.9	75	28.6	0.12	2.3	10.5
21	56.3	46.7	9.6	48.1	45.1	77	41.2	0.01	6.3	10.4
22	44.7	34.8	9.9	39.0	38.0	91	28.1	0.02	0.0	10.3
23	47.2	34.2	13.0	38.6	35.3	69	28.1	Trace	7.6	10.3
24	51.5	28.4	23.1	33.6	32.4	87	20.0	Trace	5.9	10.2
25	52.7	27.8	24.9	33.0	31.9	88	20.4	0.00	5.0	10.1
26	52.7	27.8	24.9	33.0	31.9	84	27.9	0.00	0.0	10.1
27	53.1	32.9	20.2	50.0	47.8	53	44.8	0.00	4.2	10.0
28	56.6	45.2	11.4	48.4	41.9	90	41.2	0.13	5.8	10.0
29	61.7	48.3	13.4	52.8	51.3	94	42.1	0.17	0.7	9.9
30	55.4	49.0	6.4	52.4	51.6	93	34.8	0.15	0.2	9.8
31	54.7	44.4	10.3	50.2	49.3	95	30.6	0.20	0.0	9.8
Means	57.5	43.8	13.7	49.2	47.4	86.7	36.4	Sum 0.91	3.0	10.7

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX							
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky					
	Polaris		δ Ursae Minoris				Polaris		δ Ursae Minoris			
	Dura-tion	Fraction of total Exposure	Dura-tion	Fraction of total Exposure			Dura-tion	Fraction of total Exposure	Dura-tion	Fraction of total Exposure		
Oct. 1	hours	0.00	hours	0.00	4.8	11.7	hours	0.00	0.0	0.00		
2	0.0	0.00	0.0	0.00	0.7	11.7	1.9	0.18	1.7	0.16		
3	3.9	0.36	2.9	0.27	0.0	11.6	0.7	0.07	0.3	0.03		
4	0.9	0.09	0.2	0.02	4.8	11.5	..	..	..	..
5	1.6	0.15	1.2	0.11	4.4	11.4	10.0	0.98	9.0	0.88		
6	8.9	0.81	8.7	0.79	9.0	11.4	10.5	1.00	10.5	1.00		
7	6.0	0.55	6.0	0.55	9.7	11.3	10.5	1.00	10.5	1.00		
8	10.0	0.91	9.7	0.88	9.4	11.3	10.5	1.00	10.5	1.00		
9	11.0	1.00	11.0	1.00	9.8	11.2	10.5	1.00	10.5	1.00		
10	10.3	0.94	6.3	0.57	9.8	11.1	10.5	1.00	10.5	1.00		
11	11.0	1.00	11.0	1.00	8.9	11.0	10.3	0.98	8.0	0.76		
12	7.2	0.66	5.9	0.54	9.3	11.0	7.0	0.67	5.7	0.54		
13	0.1	0.01	0.0	0.00	0.0	10.9	0.0	0.00	0.0	0.00		
14	3.8	0.33	2.0	0.17	0.6	10.9	6.0	0.54	5.3	0.49		
15	2.9	0.25	2.2	0.19	7.9	10.8	4.2	0.38	3.9	0.36		
16	1.0	0.09	0.4	0.03	8.1	10.8	5.0	0.46	4.9	0.45		
17	7.7	0.67	6.7	0.58	0.0	10.7	7.1	0.65	6.7	0.61		
18	2.7	0.23	1.5	0.13	0.2	10.6	2.4	0.22	1.5	0.14		
19	..	..	..	..	0.8	10.6	7.8	0.71	6.3	0.57
20	4.1	0.34	3.4	0.28	1.2	10.5	1.1	0.09	0.7	0.06		
21	11.8	0.98	11.8	0.98	5.8	10.4	10.7	0.93	10.7	0.93		
22	12.0	1.00	12.0	1.00	1.9	10.4	10.8	0.94	10.8	0.94		
23	12.0	1.00	12.0	1.00	9.2	10.3	11.5	1.00	11.5	1.00		
24	11.4	0.95	7.3	0.61	6.5	10.3	9.6	0.84	9.5	0.82		
25	6.7	0.56	6.6	0.55	9.2	10.2	7.1	0.61	6.3	0.55		
26	0.0	0.00	0.0	0.00	0.0	10.1	0.0	0.00	0.0	0.00		
27	2.0	0.16	1.3	0.10	1.5	10.1	1.8	0.15	0.5	0.04		
28	2.6	0.21	1.8	0.14	1.8	10.0	0.9	0.07	0.4	0.03		
29	4.7	0.38	3.7	0.29	0.7	10.0	6.9	0.59	6.8	0.58		
30	4.3	0.34	3.0	0.24	3.9	9.9	8.0	0.68	7.5	0.64		
31	3.5	0.28	3.1	0.25	1.0	9.8	7.9	0.67	7.1	0.60		
Means	5.5	0.47	4.7	0.41	4.5	10.8	6.4	0.58	5.9	0.54		

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH									
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine	
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb					
Nov. 1	o	o	o	o	o	81	38.1	0.02	3.1	9.7
2	55.6	41.0	14.6	52.9	52.0	94	28.6	0.18	1.1	9.7
3	51.3	35.2	16.1	40.0	38.4	86	28.4	Trace	6.9	9.6
4	52.4	36.4	16.0	49.0	47.7	90	27.3	0.15	0.0	9.5
5	54.8	48.8	6.0	52.4	50.0	83	47.0	0.39	0.0	9.5
6	59.6	51.6	8.0	52.9	51.1	87	48.7	0.18	5.0	9.4
7	59.4	48.7	10.7	51.2	50.8	97	37.6	0.16	1.4	9.4
8	53.8	48.4	5.4	52.6	51.9	95	37.2	0.14	0.0	9.3
9	55.2	45.3	9.9	50.7	49.8	93	32.8	0.11	0.7	9.3
10	53.7	45.4	8.3	50.4	49.4	93	35.7	0.43	2.7	9.2
11	56.9	46.6	10.3	50.6	49.2	90	39.8	0.00	5.3	9.2
12	56.7	47.6	9.1	50.4	49.3	92	37.3	0.01	0.1	9.1
13	52.1	47.2	4.9	49.5	48.4	92	38.0	Trace	0.2	9.0
14	53.8	44.8	9.0	46.2	45.0	91	41.5	0.04	3.3	9.0
15	58.2	39.8	18.4	53.8	52.8	93	28.7	0.02	2.2	8.9
16	56.4	47.1	9.3	53.2	51.0	85	38.0	0.53	0.0	8.9
17	54.6	50.2	4.4	53.4	51.1	84	47.0	0.65	0.1	8.8
18	53.0	47.4	5.6	52.2	51.0	91	44.8	0.38	0.0	8.8
19	52.8	42.8	10.0	48.8	47.7	92	35.8	0.09	1.7	8.7
20	54.3	45.2	9.1	48.8	46.7	84	37.2	0.13	4.4	8.7
21	50.6	44.2	6.4	46.9	43.7	75	38.6	0.01	4.3	8.6
22	49.1	41.0	8.1	46.0	41.9	68	34.4	0.15	1.3	8.6
23	57.0	40.9	16.1	44.5	43.9	95	33.8	0.09	0.0	8.5
24	58.1	44.2	13.9	57.0	54.5	84	44.4	0.51	0.0	8.5
25	48.4	46.1	2.3	46.2	43.6	80	39.3	Trace	3.2	8.4
26	45.5	31.2	14.3	33.7	32.2	84	21.7	Trace	1.2	8.4
27	48.9	33.4	15.5	45.5	41.5	69	26.2	Trace	0.0	8.4
28	48.6	43.3	5.3	44.3	40.9	71	37.3	0.02	0.0	8.3
29	50.8	34.8	16.0	40.6	37.5	72	27.2	0.01	0.4	8.3
30	53.1	39.8	13.3	44.3	42.9	88	36.6	0.01	5.9	8.3
Means	53.6	43.4	10.2	48.5	46.7	86.0	36.3	Sum 4.41	1.8	8.9

METEOROLOGICAL OBSERVATIONS, 1951.

D 83

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX					
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky			
	Polaris		δ Ursæ Minoris				Polaris			
	Duration	Fraction of total Exposure	Duration	Fraction of total Exposure			Duration	Fraction of total Exposure		
Nov. 1	hours 5.8	0.47	hours 5.5	0.44	hours 6.1	hours 9.8	hours 6.7	0.57	hours 5.6	0.48
2	12.4	0.99	12.4	0.99	1.4	9.7	11.3	0.96	10.8	0.92
3	7.1	0.57	5.7	0.46	8.1	9.7	4.2	0.36	4.1	0.35
4	0.1	0.01	0.0	0.00	0.0	9.6	0.2	0.02	0.0	0.00
5	0.0	0.00	0.0	0.00	0.0	9.5	0.0	0.00	0.0	0.00
6	6.4	0.51	5.5	0.44	3.9	9.5	5.9	0.50	3.9	0.33
7	1.9	0.15	1.5	0.12	5.2	9.4	0.0	0.00	0.0	0.00
8	10.6	0.85	9.9	0.79	0.0	9.3	7.0	0.60	5.9	0.50
9	4.0	0.32	3.9	0.31	0.1	9.3	5.3	0.46	4.5	0.38
10	2.3	0.18	1.1	0.09	0.6	9.2	3.9	0.33	3.6	0.30
11	2.6	0.20	0.9	0.07	5.2	9.2	2.3	0.19	2.3	0.19
12	0.7	0.05	0.3	0.02	0.4	9.1	7.0	0.58	5.6	0.47
13	1.6	0.12	0.8	0.06	0.2	9.1	5.9	0.49	1.5	0.12
14	5.0	0.38	3.7	0.28	6.0	9.1	3.6	0.30	3.5	0.30
15	9.7	0.75	9.7	0.69	1.3	9.0	5.7	0.47	1.6	0.14
16	5.0	0.39	4.4	0.34	0.1	9.0	3.4	0.28	2.1	0.17
17	3.0	0.22	0.0	0.00	0.2	8.9	3.9	0.32	3.5	0.29
18	6.2	0.46	5.0	0.37	0.0	8.9	8.1	0.66	7.5	0.61
19	11.1	0.82	5.0	0.37	2.6	8.8	7.7	0.63	7.0	0.57
20	4.9	0.36	3.8	0.28	4.2	8.8	4.5	0.37	3.7	0.30
21	11.1	0.82	10.3	0.76	4.9	8.7	11.3	0.93	11.0	0.90
22	0.0	0.00	0.0	0.00	3.5	8.7	0.0	0.00	0.0	0.00
23	0.0	0.00	0.0	0.00	0.0	8.6	0.0	0.00	0.0	0.00
24	2.0	0.15	1.4	0.10	0.0	8.6	0.7	0.05	0.7	0.05
25	10.5	0.78	9.7	0.72	5.5	8.6	11.9	0.88	11.0	0.82
26	13.5	1.00	13.5	1.00	7.3	8.5	13.4	0.99	13.3	0.99
27	1.1	0.08	0.4	0.03	0.1	8.5	0.4	0.03	0.1	0.01
28	10.5	0.78	10.5	0.78	0.1	8.4	10.9	0.81	9.4	0.70
29	7.0	0.52	6.0	0.44	0.0	8.4	5.1	0.38	4.7	0.35
30	4.0	0.30	3.4	0.25	5.7	8.4	2.3	0.17	2.2	0.16
Means	5.3	0.41	4.5	0.34	2.4	9.0	5.1	0.41	4.3	0.35

METEOROLOGICAL OBSERVATIONS, 1951.

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH									
	Eye Readings made at 09 00 hours of the Temperature of the Air					Degree of Humidity (Saturation = 100)	Lowest Tempera- ture on the Grass	Rainfall (Thrown back)	Daily Duration of Sunshine	Sun above Horizon
	Highest (Thrown back)	Lowest	Daily Range	Dry Bulb	Wet Bulb					
Dec. 1	°	°	°	°	°	89	38.3	inches	hours	hours
2	47.3	43.7	3.6	46.7	45.3	93	23.2	Trace	2.6	8.2
3	42.4	33.4	9.0	35.4	34.7	91	24.6	0.25	0.4	8.2
4	50.0	31.8	18.2	34.7	33.8	85	30.2	0.00	1.2	8.2
5	51.5	33.7	17.8	50.0	47.9	64	42.7	0.23	0.0	8.1
6	52.4	48.8	3.6	51.3	45.9	90	39.3	0.01	1.3	8.1
7	43.7	40.9	2.8	41.7	40.5	93	23.3	0.05	0.6	8.0
8	49.5	33.0	16.5	35.2	34.5	90	27.2	0.39	0.0	8.0
9	51.9	35.2	16.7	49.2	47.9	70	35.5	Trace	5.3	8.0
10	45.4	41.8	3.6	42.2	38.7	62	29.4	Trace	3.1	8.0
11	41.6	36.0	5.6	36.7	32.8	100	15.3	Trace	2.5	7.9
12	39.3	23.8	15.5	25.0	25.0	95	15.6	Trace	1.9	7.9
13	38.6	24.3	14.3	28.0	27.6	96	14.2	Trace	2.2	7.9
14	43.0	26.2	16.8	29.7	29.4	100	24.2	Trace	0.3	7.9
15	51.0	29.1	21.9	37.4	37.4	89	31.6	Trace	0.2	7.9
16	53.3	37.4	15.9	51.0	49.5	88	42.7	0.00	0.0	7.8
17	53.4	48.2	5.2	51.2	49.5	91	43.7	Trace	1.4	7.8
18	48.0	46.0	2.0	46.0	44.9	89	29.0	0.04	0.0	7.8
19	52.0	44.9	7.1	48.0	46.5	91	44.4	0.00	0.0	7.8
20	51.7	47.8	3.9	51.6	50.4	91	37.4	0.14	0.0	7.8
21	53.0	44.6	8.4	50.3	49.1	91	41.0	0.01	0.0	7.8
22	48.5	45.7	2.8	46.8	46.4	97	32.0	0.00	0.0	7.8
23	48.0	44.2	3.8	46.5	45.2	97	33.8	0.04	0.0	7.8
24	50.5	42.3	8.2	42.1	41.7	87	34.0	0.20	0.0	7.8
25	52.3	41.9	10.4	50.5	48.7	92	33.2	0.02	0.7	7.8
26	47.8	42.0	5.8	42.1	41.2	94	24.6	0.27	1.9	7.8
27	45.7	33.2	12.5	34.5	33.9	76	24.7	0.00	0.3	7.9
28	45.7	33.8	11.9	45.1	42.1	63	33.6	0.37	3.1	7.9
29	44.8	40.2	4.6	42.8	38.3	92	35.1	0.05	0.0	7.9
30	45.3	37.9	7.4	38.8	38.0	89	25.0	0.01	1.1	7.9
31	52.4	33.0	19.4	45.3	43.9	80	32.0	0.02	0.0	7.9
Means	47.8	38.1	9.6	42.4	40.9	87.5	31.0	Sum 2.10	1.0	7.9

TABLE XVII. - DAILY RESULTS OF THE METEOROLOGICAL OBSERVATIONS

Month and Day 1951	AT THE ROYAL OBSERVATORY, GREENWICH				AT THE ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX							
	Record of the Night Sky				Daily Duration of Sunshine	Sun above Horizon	Record of the Night Sky					
	Polaris		δ Ursæ Minoris				Polaris		δ Ursæ Minoris			
	Dura- tion	Frac-tion of total Exposure	Dura- tion	Frac-tion of total Exposure			Dura- tion	Frac-tion of total Exposure	Dura- tion	Frac-tion of total Exposure		
Dec. 1	hours		hours		hours	hours	hours		hours			
1	13.2	0.96	10.4	0.76	0.9	8.3	11.1	0.82	5.5	0.41		
2	10.8	0.78	10.4	0.76	4.4	8.3	13.1	0.97	13.1	0.97		
3	0.0	0.00	0.0	0.00	3.7	8.2	0.0	0.00	0.0	0.00		
4	4.1	0.30	2.5	0.18	0.0	8.2	0.0	0.00	0.0	0.00		
5	0.4	0.03	0.2	0.02	0.1	8.2	2.2	0.17	1.7	0.12		
6	8.1	0.59	6.9	0.50	2.2	8.2	6.8	0.50	5.8	0.43		
7	3.2	0.23	1.6	0.12	5.6	8.1	5.0	0.37	2.5	0.19		
8	6.7	0.49	4.5	0.33	0.0	8.1	8.1	0.59	6.8	0.50		
9	11.7	0.85	11.1	0.80	5.0	8.1	12.5	0.91	12.2	0.89		
10	13.7	1.00	11.8	0.86	6.6	8.1	13.7	1.00	13.7	1.00		
11	13.7	1.00	13.7	1.00	5.7	8.1	13.7	1.00	13.6	0.99		
12	13.7	1.00	13.1	0.95	3.3	8.0	13.7	1.00	13.7	1.00		
13	8.3	0.61	6.4	0.47	6.6	8.0	13.7	1.00	13.7	1.00		
14	6.2	0.45	5.2	0.38	3.5	8.0	7.1	0.52	6.7	0.49		
15	4.8	0.35	2.9	0.21	0.0	8.0	3.7	0.27	2.9	0.21		
16	0.0	0.00	0.0	0.00	0.0	8.0	0.0	0.00	0.0	0.00		
17	0.7	0.05	0.4	0.03	6.3	8.0	0.7	0.05	0.6	0.04		
18	0.0	0.00	0.0	0.00	0.0	8.0	0.0	0.00	0.0	0.00		
19	10.7	0.76	10.0	0.72	0.0	7.9	12.1	0.88	11.0	0.80		
20	0.0	0.00	0.0	0.00	0.0	7.9	0.0	0.00	0.0	0.00		
21	1.3	0.09	1.3	0.09	0.8	7.9	1.7	0.12	1.5	0.11		
22	0.0	0.00	0.0	0.00	0.0	7.9	0.0	0.00	0.0	0.00		
23	0.3	0.02	0.0	0.00	0.0	7.9	0.1	0.01	0.1	0.01		
24	5.3	0.38	4.4	0.31	0.0	7.9	3.0	0.22	3.0	0.22		
25	8.8	0.63	8.8	0.63	1.7	7.9	8.0	0.58	7.3	0.53		
26	4.5	0.32	3.0	0.21	3.7	8.0	3.1	0.23	3.1	0.23		
27	7.8	0.56	6.4	0.45	0.4	8.0	8.2	0.60	5.8	0.42		
28	0.0	0.00	0.0	0.00	4.8	8.0	0.0	0.00	0.0	0.00		
29	8.8	0.64	7.0	0.51	0.7	8.0	9.1	0.67	8.5	0.63		
30	5.2	0.38	4.5	0.33	0.9	8.0	5.8	0.43	5.4	0.40		
31	3.3	0.24	3.0	0.22	0.0	8.0	..	..	..	..
Means	5.7	0.41	4.8	0.35	2.2	8.0	5.9	0.43	5.3	0.39		

TABLE XVIII(A). - TOTAL AMOUNT OF SUNSHINE REGISTERED AT THE ROYAL OBSERVATORY GREENWICH
IN EACH HOUR OF THE DAY IN EACH MONTH

Month 1951	Registered duration of Sunshine in the Hour ending:-																			Total Registered Duration of Sunshine in each Month	Corresponding aggregate Period during which the Sun was above the Horizon	Proportion of Sunshine	Mean Altitude of the Sun at Noon
	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	Noon	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h							
January	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	30.6	260.3	0.118	18	
February					1.1	4.1	5.7	7.6	7.5	6.1	5.2	4.4	3.9	0.3					45.9	278.2	0.165	26	
March		0.4	5.2	8.6	8.4	7.5	7.2	6.3	6.5	8.4	7.6	2.4	0.1					68.6	367.0	0.187	36		
April		6.1	13.0	14.9	15.8	12.7	14.6	14.6	13.8	14.7	14.3	12.9	6.0	0.1				153.5	414.7	0.370	48		
May	3.0	5.1	7.3	8.2	9.7	10.3	10.7	9.5	10.8	9.0	10.9	10.8	10.0	6.7	0.3			122.3	483.1	0.253	57		
June	2.3	9.0	13.7	18.1	19.5	20.9	20.3	17.4	17.2	17.9	17.6	18.1	16.6	15.2	10.0	2.7		236.5	496.1	0.477	62		
July	1.0	9.1	14.7	18.7	19.5	20.9	20.3	17.1	14.9	13.6	14.3	10.5	9.8	11.1	7.2	0.8		188.9	500.3	0.378	60		
August	0.4	4.7	9.9	11.7	13.0	13.4	12.6	12.6	12.4	12.5	10.9	11.6	12.0	9.1	3.1			149.9	453.0	0.331	52		
September		0.2	3.5	6.2	11.3	11.3	12.9	10.7	10.6	10.0	10.8	8.7	6.6	0.9				103.7	381.0	0.272	42		
October				2.1	5.1	8.7	12.2	13.5	12.1	13.2	12.9	11.1	3.1					94.0	332.6	0.283	30		
November					2.5	6.7	9.2	8.3	9.7	6.9	8.1	3.0	0.1					54.5	268.0	0.203	20		
December					0.1	3.2	5.4	5.5	6.1	7.3	2.5							30.1	245.7	0.123	16		
For the Year	3.7	26.0	53.4	79.9	104.6	124.6	132.7	130.3	125.8	123.1	116.6	99.9	74.6	52.4	27.1	3.8		1278.5	4480.0	0.285	..		

The hours are reckoned from "Apparent" midnight.

TABLE XVIII(B). - TOTAL AMOUNT OF SUNSHINE REGISTERED AT THE ROYAL GREENWICH OBSERVATORY HERSTMONCEUX
IN EACH HOUR OF THE DAY IN EACH MONTH

Month 1951	Registered duration of Sunshine in the Hour ending:-																			Total Registered Duration of Sunshine in each Month	Corresponding aggregate Period during which the Sun was above the Horizon	Proportion of Sunshine	Mean Altitude of the Sun at Noon
	5 ^h	6 ^h	7 ^h	8 ^h	9 ^h	10 ^h	11 ^h	Noon	13 ^h	14 ^h	15 ^h	16 ^h	17 ^h	18 ^h	19 ^h	20 ^h							
January	h	h	h	h	4.0	9.3	9.4	10.8	12.4	12.5	8.4	3.4	0.1					70.3	263.2	0.267	18		
February				0.6	2.9	7.8	11.1	12.5	11.0	10.3	7.7	8.1	4.7					76.7	279.5	0.274	26		
March		2.5	8.0	12.2	14.8	13.0	10.6	11.2	11.8	12.4	11.0	10.3	1.7					119.5	367.0	0.326	37		
April	3.7	12.5	18.1	19.4	17.5	18.3	17.6	18.4	18.8	16.5	16.9	14.6	11.7	5.4				209.4	413.7	0.506	49		
May	0.1	6.8	10.2	12.1	14.4	16.5	16.9	14.8	15.4	16.0	17.9	17.7	14.9	12.9	10.3	1.3		198.2	480.4	0.413	58		
June	2.8	14.8	16.0	17.1	18.5	18.6	20.0	22.8	22.7	23.3	22.3	23.3	22.7	22.5	19.8	6.5		293.7	493.1	0.596	62		
July	0.5	11.4	16.7	19.1	20.6	20.1	18.7	18.8	17.4	18.9	20.3	17.9	17.3	15.3	12.5	3.3		248.8	497.0	0.501	60		
August	0.1	3.6	8.8	11.6	14.0	14.1	14.6	15.3	16.4	16.1	14.0	11.6	15.1	12.9	6.6	0.5		175.3	451.3	0.388	53		
September		0.3	4.5	9.8	13.5	16.3	14.4	13.0	12.4	10.9	11.0	10.8	9.2	2.9				129.0	380.6	0.339	42		
October				8.1	15.0	15.3	16.7	16.7	15.2	14.6	15.4	14.5	9.3	0.1				140.9	333.5	0.422	31		
November				0.3	2.8	7.5	10.7	11.8	12.0	11.5	9.0	6.3	0.8					72.7	270.3	0.269	21		
December					1.7	7.2	10.0	11.0	11.9	10.5	10.7	3.9						66.9	249.2	0.268	16		
For the Year	3.5	40.6	71.2	104.8	139.0	165.0	173.8	175.7	176.4	175.2	165.6	145.4	119.0	80.0	54.6	11.6		1801.4	4478.8	0.402	..		

The hours are reckoned from "Apparent" midnight.

METEOROLOGICAL OBSERVATIONS, 1951.

D 87

TABLE XIX. - READINGS OF THERMOMETERS AT 9^h ON THE REVOLVING OPEN STAND
(FORMERLY CALLED "ORDINARY") AT GREENWICH

1951	January		February		March		April	
Day	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
1	o	o	o	o	o	o	o	o
2	38.9	31.8	41.7	27.6	45.1	28.3	46.3	39.4
3	35.0	32.1	44.6	33.7	46.3	35.4	52.3	36.7
4	36.2	32.4	42.1	38.8	44.6	32.6	51.7	35.4
5	41.0	29.2	40.4	31.2	41.1	34.0	54.9	43.6
6	49.6	40.8	43.2	37.6	47.4	29.7	54.7	36.3
7	51.3	45.7	45.2	34.4	47.6	33.2	57.6	39.3
8	50.4	40.5	45.1	32.8	45.6	35.6	58.1	40.4
9	47.9	40.7	48.0	36.0	50.9	34.4	50.0	37.4
10	47.6	34.6	49.0	36.0	40.3	34.2	53.3	42.3
11	43.4	32.5	44.0	31.8	36.2	33.8	47.2	37.3
12	46.9	36.1	44.0	36.0	38.5	35.1	50.7	32.6
13	48.3	36.4	40.5	32.6	44.3	36.7	..	..
14	42.3	34.3	50.4	35.2	49.8	38.6	54.7	36.5
15	45.2	37.9	42.0	35.6	52.0	42.7	54.6	35.6
16	46.3	38.8	38.9	34.3	53.0	38.2	50.1	32.0
17	43.5	32.9	44.4	33.6	56.0	33.9	53.3	40.0
18	51.9	36.4	46.8	41.8	52.8	44.0	52.4	35.6
19	52.0	44.6	46.8	34.0	56.4	43.8	56.4	34.6
20	50.6	36.9	48.6	37.1	51.4	40.0	58.2	42.6
21	50.0	41.5	47.8	34.2	42.8	31.2	57.2	38.8
22	50.1	45.3	47.3	33.4	45.4	30.4	59.2	36.3
23	50.0	42.9	46.9	33.8	51.7	39.6	51.0	36.6
24	48.8	39.4	43.6	34.4	57.6	48.8	52.9	34.6
25	49.3	41.2	47.9	34.6	54.2	36.6	69.8	38.6
26	44.8	38.8	47.0	35.7	49.3	32.4	73.5	36.7
27	42.7	39.0	41.4	26.4	48.0	39.9	75.2	39.8
28	44.3	26.5	42.9	33.6	48.0	36.7	59.2	39.2
29	42.9	25.2	46.0	29.4	46.6	30.8	54.0	36.8
30	38.3	22.7			46.2	30.7	49.0	33.4
31	30.8	23.7			44.9	34.2	52.9	35.4
Mean	45.1	35.7	44.9	34.1	47.8	35.5	55.5	37.5

TABLE XX. - AMOUNT OF RAIN COLLECTED AT GREENWICH IN EACH MONTH OF THE YEAR 1951

Gauges partly sunk in the Christie Enclosure	Monthly Amount of Rain collected in each Gauge													Height of Receiving Surface		
	Number of Gauge	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sums	Above the Ground	Above Mean Sea Level
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	ft. in.	ft. in.	
	6	2.579	5.939	2.830	2.811	1.99	1.25	1.51	3.16	3.04	0.91	4.41	2.10	32.53	0 5	149 6
	8	2.547	6.020	2.781	2.761	1.99	1.24	1.50	3.08	3.03	0.91	4.45	2.09	32.40	1 0	150 1
Number of Rainy Days (0.005 in. or over)	21	24	21	15	17	8	9	19	11	12	24	16	197	..	..

