SUPPLIED FOR PUBLIC SERVICE.

RESULTS OF THE MAGNETIC & METEOROLOGICAL OBSERVATIONS

MADE AT THE

ABINGER MAGNETIC STATION, SURREY

AND

THE ROYAL OBSERVATORY, GREENWICH

RESPECTIVELY

IN THE YEAR

1929

UNDER THE DIRECTION OF

SIR FRANK DYSON, K.B.E., M.A., D.Sc., LL.D., F.R.S.,

ASTRONOMER ROYAL.

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ERRATA

RESULTS OF MAGNETIC OBSERVATIONS.

1927	p. D 59	Last line: for ·43017 on 11th, read ·43048 on 14th.
	p. D 60	May, last line: for ·43004 on 3rd, read ·43020 on 7th.
		June, last line: for 12th read 26th.
1928	p. D 20	Last paragraph: for D 58 read D 59.

THE ROYAL OBSERVATORY, GREENWICH

AND

ABINGER MAGNETIC STATION, SURREY.

MAGNETIC AND METEOROLOGICAL OBSERVATIONS, 1929.

Introduction.

In the present volume a brief account is given of the instruments and methods, of reduction now in use. Other information, principally of an historical nature, may be found in the Introductions to the volumes for 1909 and previous years.

Personal Establishment and Arrangements.

During the year 1929 the staff employed in the Magnetic and Meteorological Department of the Royal Observatory consisted of W. M. Witchell, Superintendent W. Stevens, G. F. Wells, P. L. Rickerby and three computers. Computers employed during the year were :—D. Oliver, F. W. Reece and Miss E. W. Clack.

In consequence of the electrification of the railways in the neighbourhood of Greenwich, magnetic observations are now carried on at an out-station about six miles from the town of Dorking in Surrey, and one and a half miles from the village of Abinger.

The general plan of working at Abinger is similar to that adopted at Greenwich for many years. It is found possible, however, to increase the number of absolute observations very considerably, and smoother base-line values are to be anticipated from this circumstance.

Mr. Stevens, resident observer and assistant-in-charge at the Abinger Magnetic Station was assisted by Mr. Rickerby.

THE MAGNETIC STATION AT ABINGER, NEAR DORKING, SURREY.

The Abinger station for observing and recording magnetic phenomena was erected in 1924 on a site on the northern slope of Leith Hill. It is approximately 26 miles from the Royal Observatory in a direction a little south of south-west. The geographical position is Latitude 51° 11′ 5″ N., Longitude 0° 23′ 12″ W.; and the height above sea level is approximately 800 feet. The nearest railway track approaches to about $2\frac{1}{2}$ miles.

The buildings, equipment and general arrangement of the instruments were closely copied from those at Greenwich.

A small power-house with storage battery and alternating generator for the supply of electric current required in lighting and heating is situated about 125 yards south of the observation houses.

General Description of the Buildings and Instruments of the Magnetic Observatory.

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

A smaller pavilion, measuring 16 feet by 12 feet, erected in 1926 for the testing and standardising of magnetic instruments (work formerly carried on at Kew Observatory), is situated about 40 feet south-east of the Magnetic Pavilion, and contains three concrete piers passing through the floor without contact. The unifilar magnetometer, mounted until August, 1928, in the Magnetic Pavilion, is at present used in the Testing Pavilion.

The Magnetograph House stands 50 feet east of the Magnetic Pavilion in which the absolute magnetic observations are made. The recording instruments are situated in an inner chamber 15 feet long, 12 feet wide, and 8 feet high. This chamber is supported on small concrete piers and surrounded by an outer chamber, whose walls of non-conducting material are nearly 2 feet thick. Between the walls of the two chambers is an air space of from 2 to 3 feet. The inner chamber is electrically heated by about 50 suitably insulated low-temperature non-magnetic metallic resistance strips,

each consuming 25 watts. The current used is alternating, and is therefore without effect upon the magnetic registration.

The temperature is controlled by a thermostat placed in the centre of the room, at the same level as the magnetic instruments. This actuates a relay, which switches the electric current into or out of the heating circuits. The departure from a mean temperature is not more than 0°·2 C.

The centres of the three instrument piers are situated as follows : For the horizontal force instrument, 2 feet west and 2 feet 6 inches south of the north-east angle of the room ; for the declination instrument, 5 feet 6 inches west and 5 feet south of the same angle ; for the vertical force instrument, 2 feet east and 3 feet north of the south-west angle. The two piers which support the recording mechanism occupy the north-west and south-east corners of the room, their longer sides being in the direction at right angles to the meridian. The clocks can be wound and the recording drums inserted or removed through shuttered openings in the wall of the inner chamber. The temperature in the chamber is read daily from a thermometer attached to the horizontal force instrument.

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

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

It should be mentioned that in order to dispense with the necessity of continuously running an alternator in circuit with the storage battery, the illuminating lamps for the recording drums and also the hourly-signal lamps are lit by *direct* current, special

care being taken with the return circuit. Experiments have shown that, with the precautions taken, the effect of this current on the variometer records is negligible. Alternating current for heating the chamber or for general illumination is supplied as required, the alternating generator being started and stopped automatically by the thermostat at the same time as the heating circuit is switched in and out. Very considerable saving in running cost is effected by this device.

THE INSTRUMENTS AT ABINGER.

DECLINATION MAGNET FOR ABSOLUTE DETERMINATIONS.—A hollow cylindrical magnet with scale and collimating lens (by Messrs. Elliott Brothers) is used in conjunction with a telescope (by E. R. Watts & Son) mounted independently on the same pier. The telescope has a six-inch circle on which azimuths are read by means of two microscope-micrometers to 1″ of arc. An azimuth-mark is fixed to the stem of a large tree situated approximately 80 yards from the telescope to the north. Frequent determinations of the azimuth of this mark are made by means of observations of Polaris, and the values are found to be substantially constant.

In observing Polaris, both direct and reflected view of the star is taken during each observation. Reflection is obtained from the surface of mercury contained in a shallow copper dish, the effect of error of level of the telescope being entirely eliminated by this means.

The magnet is suspended by tungsten wire, of diameter 0·02 mm. Frequent reversals are made to eliminate the collimation error of the magnet from the results, and the position of torsional zero of the suspension wire is also frequently checked. 90° of torsion deflects the magnet about 3′ of arc.

ABSOLUTE HORIZONTAL FORCE INSTRUMENTS.

THE SCHUSTER-SMITH COIL MAGNETOMETER.—This instrument has been lent to the Observatory by the Director of the National Physical Laboratory. It is the second constructed of the type and is rather smaller than the original instrument, a detailed description of which is to be found in *Philosophical Transactions of the Royal Society*, Vol. 223 (1923), pp. 175-200. It is erected on a pier in the centre of the absolute observation pavilion and was brought into use as the standard instrument for observation of horizontal force on 1927, February 1. In general, four independent determinations are made each week-day.

The following is a brief description of the instrument and the method employed in measuring Horizontal Force :—

A hollow marble cylinder of 50 cms. diameter rests, with its axis horizontal, on a brass support which can be turned in azimuth. The azimuth may be read to 10″

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

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

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

At the south end of the observing pavilion a storage battery of 25 cells 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 E.M.F. across a known resistance is balanced against that of a Weston standard cell.

Every precaution is taken 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 as regards the insulation of the galvanometer circuit, as any stray current here will lead to a difference of potential between the terminals of the standard cell and the standard resistance. It is desirable that the resistance of the galvanometer should be as low as possible consistent with sensitivity.

Theory of the observation :—

If a horizontal magnetic field whose intensity is slightly greater than that of the earth is imposed at an angle of nearly 180° with the earth's field, a position angle can be found at which the resultant of the two forces 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 piece for the magnet, the magnet is replaced and allowed to hang freely in the earth's field. The position, on the appropriate scale, of the spot of light reflected by the magnet-mirror is noted. This scale is normally on the west side of the instrument. By optical methods, reference marks on two other scales placed respectively to the magnetic north and south of the instrument are adjusted accurately to points 90° 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 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 azimuth angle through which the coil has been turned is read from the north scale, and the coil is then turned to an approximately equal angle on the opposite side of the magnetic meridian. This reverses the direction of the resultant force ; 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 then 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 angles.

Throughout these operations a second observer ensures the maintenance of the current at a steady fixed value, adjusting the variable resistance, if necessary, according to the indications of the galvanometer of the balance.

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

The constants of the coil and of the potentiometer at various standard temperatures have been precisely determined by the National Physical Laboratory and

will be checked from time to time. The electrical constants on which the reduction of observations made in 1929 is based were determined in 1928, and verified in July 1929.

If F be the factor of the coil and i be the current passing in ampères, then the intensity of the field at the centre of the coil in γ units is $Fi \times 10^4$. The adopted value of the factor "F" of the coil is $3{\cdot}59570\ (1-4{\cdot}3t \times 10^{-6})$, t being temperature Centigrade.

The observed values of horizontal force obtained with this instrument are subject to a correction of $-2{\cdot}5\gamma$ for the effect of the field of the declination magnet which is suspended permanently at a distance of about 12 feet geographically to the north. The effect was determined experimentally by reversal of the magnet. The application of the correction is made in the reduction of the observations.

A KEW-PATTERN UNIFILAR MAGNETOMETER by Messrs. C. F. Casella & Co. (No. 181) is also in use to determine absolute horizontal force. Deflection observations are made at three distances, namely, 22·5 cms., 30 cms. and 40 cms., and normally two observations are taken each week. 16 observations of the moment of inertia of the collimator magnet were made during the year 1929. The magnet having become rather rusty, it was repolished on 1928, August 18. The mean observed value of log. K from 17 determinations between that date and 1929, Sept. 30, was 2·42388; and from 9 determinations subsequent to October 1, 2·42414. These values respectively have been used in the reductions during the corresponding months of the year, and are based on the Greenwich Standard Inertia Cylinder. (See Appendix II of the Magnetic Results, 1926).

The adopted values of the distribution constants P and Q derived from 80 determinations made during the same period are +9·34 and −1282 respectively.

Agreement of the results with those obtained by the Coil magnetometer, as indicated by base-line determinations, has not been so consistent in 1929 as in previous years. The available evidence points to variations in the values of the distribution constants as being primarily the reason.

ABSOLUTE INCLINATION INSTRUMENT.—An Earth Inductor by The Cambridge Instrument Co., in conjunction with a Broca galvanometer, is used to determine magnetic inclination. About twelve determinations are made each week. Observations are made in four positions to eliminate any small errors arising from slight asymmetry in the instrument. After the first adjustment, the coil-support is reversed

about a horizontal axis and a second adjustment 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 screw micrometers to one second of arc. The levels on the base can likewise be read to one second. A detailed description of the dip inductor will be found in the volume for 1915. From 1929, January 1, the observations of Inclination were no longer used for determination of vertical force. (See next page.)

VERTICAL FORCE COIL-MAGNETOMETER.—This instrument, designed by Dr. D. W. Dye, F.R.S., for direct measurement of vertical force, and constructed under his supervision at the National Physical Laboratory, Teddington, has been temporarily lent to the Royal Observatory by the Director of the National Physical Laboratory.

It was erected on the south-east pier of the observing pavilion at Abinger in the middle of August, 1928—the unifilar magnetometer being removed to a pier in the testing hut to make room for it—and regular observations began on August 23 of that year.

A full description of the instrument is published in *Proceedings of the Royal Society*, 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 in an adjustment of the current until the artificial field imposed at the centre of the coil exactly annuls the vertical component of the earth's field. The intensity of this component is then easily calculable from a knowledge of the dimensions of the coil and the amount of current indicated by potentiometer measurement.

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

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

A weak alternating current supplied from a generator at some distance from the instrument, passes through the test coil. The reaction between this current and the

magnetic field causes the coil to receive an alternating rotatory force which will only vanish when the vertical field is annulled. The resulting vibration is brought to a maximum by adjustment of the generator frequency to synchronism with the nataral frequency of the coil (about 15 per second), and high sensitivity is thus obtained. Microscopic vibration is exhibited by projection, from the mirror, of an image of cross wires to a screen erected about 2 metres distant.

Observations with the instrument, in number from six to eight each week day, showed an average weekly range of about 9γ in the daily mean base-line values, the probable error of a single observation being $\pm$ 1·4γ. Included in the range is the effect of small irregular drifts or fluctuations, originating in the variometer, which it should now be possible to follow with some certainty.

A systematic difference of about 30γ between the results from the Coil and the Inductor has been traced to the development of a small amount of wear in the bearings of the rotating coil of the Inductor, not hitherto suspected, but fully capable of explaining the excess in observed values of Inclination indicated by the magnetometer observations.

THE DECLINATION VARIOMETER.—The magnet is a single short needle of chromium steel, 10 mm. long and 0·4 mm. in diameter. The mirror for reflecting a beam of light on to the recording drum is of platinised quartz, $2\frac{1}{2}$ mm. square, and is fastened by shellac to a small piece of stout aluminium foil. The foil is shaped above the mirror to form two small V hooks, by which it is hung on to the magnet. Rough adjustment is obtained by bending the foil; and for fine adjustment recourse is made to the illuminating lamp, which has sliding attachment to a vertical wooden pillar capable of being fixed in any desired position in the room. A small mica damping vane is fixed to the foil below the mirror, and the needle is rendered aperiodic by adjusting brass damping plates on either side of the vane.

A very fine quartz filament ·003 mm. in diameter forms the suspension-thread, and the displacement produced by revolving the torsion head 360° is only a fraction of a minute of arc.

The focussing lens is mounted in the side of the magnet chamber and a plane glass window admits light through the brass covering-cylinder. A base-line mirror similar to the magnet-mirror is mounted within the magnet chamber on a small brass prism resting on a shelf fixed to the back plate of the chamber in such a position that it is at the same height as the magnet-mirror and about one centimetre to the right. Adjustment is obtained by two point-ended screws passing through the back plate and forming two of the supports of a three point system. The distance of the magnet-

mirror from the recording cylinder is such that the geometric scale-value at the centre of the photographic sheet is 0′·610 per mm. As the beam is not normal to the drum, however, the scale value varies from 0′·605 at the top of the sheet to 0′·615 at the bottom. Expressed as magnetic force the corresponding mean scale-value would be 3·29γ per mm. at the present time.

THE HORIZONTAL FORCE VARIOMETER.—In setting up this variometer the decision was taken to revert to the former Greenwich practice of recording horizontal force instead of the north component (recorded from 1915 to 1926). The general construction of the instrument is in all respects similar to that of the declination variometer. The suspension filament is of quartz ·012 mm. diameter. The needle is adjusted to a position at right angles to the magnetic meridian by means of the torsion head in the following manner. Orientation marks have been drawn on the western wall of the room subtending successive degrees of azimuth at the centre of the variometer pier. An ordinary magnetometer distance-bar securely held beneath the base of the variometer in a wooden frame is by this means easily set at right angles to the magnetic meridian, and upon it is placed, about 25 cms. from the variometer, the usual carrier with a magnet mounted in position. A relatively strong magnetic field is thus imposed at right angles to that of the earth, and the torsion head is adjusted until the needle of the variometer is negligibly disturbed by the reversal of the imposed field. The magnet is then transferred to an equal distance on the opposite side of the variometer, and the experiment is repeated. Any error due to imperfect correspondence of the centre of the distance-bar with the point of suspension of the variometer needle is eliminated by setting the torsion head to the mean position.

An adjustment of orientation intended to cover the period 1927-1929 was made on August 24, 1927.

The scale value of the variometer is determined from the deflections produced electro-magnetically by passing measured current through a Helmholtz coil of 50 cms. radius which envelopes the instrument. The factor for the coil is determined, absolutely, by using the coil in the same manner to deflect the needle of the declination variometer. The horizontal force at the time of the experiment being known, the strength of the field necessary to produce the observed deflection is readily computed.

The adopted scale value was 2·60γ per mm. throughout the year.

THE QUARTZ-THREAD VERTICAL FORCE VARIOMETER.—For a detailed description of this instrument reference may be made to the *Philosophical Magazine*, vol. vii., sixth series (1904), p. 393. The base of the instrument consists of a metal casting

with uprights at the two ends, carrying attachments for the ends of the quartz fibre which supports the magnet system. By an ingenious arrangement the length of the frame carrying the horizontal quartz fibre which suspends the magnet system is defined by quartz tubes. The metal rods composing the sides of the frame pass through these tubes, and, by the reaction of stiff springs, press the ends of the frame firmly on to the ends of the quartz tubes. Alteration in temperature does not, by this means, give rise to a change in tension of the suspension thread, which different co-efficients of expansion would otherwise produce. The instrument was carefully adjusted at Greenwich for elimination of other temperature effects, in the manner explained in the description given in the *Philosophical Magazine*, but a small effect has developed since the reduction in sensitivity referred to below.

The magnet system consists of two magnets, 8 cms. long and 1 mm. in diameter, which are attached by small platinum stirrups to two rods of fused quartz ; these are fused to a quartz plate, the upper surface of which is optically worked and platinised to form a plane mirror. The quartz rods are drawn out at their other ends into fibres of about 0·008 to 0·010 cm. diameter ; one of these is fused to a coiled quartz spring. The quartz spring and the other fibre are soldered to small brass rods fitting into clamps at the two ends of the metal base. The thread is under sufficient tension to stretch the spring through about two millimetres. A right-angled prism is supported in a frame above the mirror, so as to reflect the light in a horizontal direction ; a single lens is placed beneath to focus the light on the recording drum. The prism frame is adjustable in azimuth in order to enable the trace to be brought to any desired part of the sheet. An adjustable mirror beneath the quartz fibre and adjacent to the mirror of the magnet system serves to give a base line.

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

The degree of sensitivity to which the variometer was at first adjusted was rather high and seemed to be gradually increasing. It was diminished to about one-third on 1926, September 14. The scale value is obtained by electro-magnetic deflections. The radius of the coil used in these experiments is 30·15 cms. The mean of the scale values adopted in 1929 is $2{\cdot}42_{\gamma}$ per mm. Slight deviations from this value occur

when the standard temperature of the room is raised or lowered from the mean. The value is sensibly uniform over the range allowed by the photographic sheet.

MAGNETIC REDUCTIONS.

The time used is Greenwich Mean Time.

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

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

In the case of declination, ten observations are made, on an average, each week-day, and four in the case of horizontal force. Previous to 1929 the base-line value for vertical force traces was computed from absolute observations of Inclination combined with simultaneous values of horizontal force taken from the magnetograms. From 1929, January 1, the values have been obtained directly from observations of vertical intensity with the Coil-magnetometer.

As stated on page D 15, there is evidence that the values of Inclination observed with the Inductor have been systematically too great. The amount in 1928 was in the neighbourhood of 0′·9. It is not considered practicable to make a retrospective correction for this, and consequently a discontinuity arises in the definitive values of vertical force at the time of changing the method of deriving the base-line value of the magnetograms.

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

DISTURBED DAYS.—No day in the year 1929 is classed as a day of great disturbance. Days of lesser disturbance in conformity with the list issued by the International Committee from De Bilt Observatory, Holland, are February 16-18, 27-28; March 11-13;

July 10-11; July 31-August 1; August 14-15; October 16-17; November 3-4. Where two days are mentioned together, it is to be understood that the reference is to a series of 24 consecutive hours comprising parts of two consecutive days.

Commencing with the year 1926—the first full working year at the Abinger Station—some changes in the tabulation of the results were introduced, and as from 1927 the *detailed* description of significant movements in the traces is discontinued.

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

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

Then follow in Tables V to VII the monthly and annual mean diurnal inequalities for all days, and for quiet and disturbed days as selected by the International Committee. In addition to monthly and annual values there are also given mean values of the diurnal inequalities grouped into the seasonal periods, Winter (that is January, February, November, December), Equinox (March, April, September, October) and Summer (May, June, July, August).

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

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

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

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

Table XII contains the mean monthly and annual values of the components of magnetic force collected together.

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

Reduced copies of the magnetograms for certain disturbed days have been printed in each volume since 1882. The days are now those selected by the International Committee, the time-limits of the traces being determined in consultation with the Director of Val Joyeux Observatory, with a view to the comparison of the results of the two stations.

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

With regard to the plates, on each day three distinct registers are given, viz.: declination, horizontal force, and vertical force.

At the foot of each plate, scales, in C.G.S. measure, are given for each of the magnetic registers.

On p. D 61 is printed a table giving the mean annual values of Magnetic Elements determined at the Royal Observatory, Greenwich, over the whole period of observation, together with those determined at the Abinger Station since 1925.

F. W. DYSON.

ROYAL OBSERVATORY, GREENWICH.

1930, *July* 30.

ROYAL OBSERVATORY, GREENWICH.

Results of Magnetic Observations

1929

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION AT THE ABINGER MAGNETIC STATION.

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
January.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1*	39·9	40·5	40·4	40·0	40·4	40·8	40·4	40·3	40·0	41·0	42·0	43·1	44·3	44·3	43·2	42·3	42·0	41·9	41·7	41·1	40·9	39·9	40·6	40·9	
2	40·8	40·8	41·4	41·6	41·6	41·6	41·3	41·0	41·3	41·9	42·8	43·6	44·0	44·0	43·3	42·7	43·1	43·0	42·1	41·6	41·3	41·1	41·1	41·2	
3	41·2	41·1	41·1	41·0	41·2	41·0	40·4	40·1	40·1	40·6	42·1	43·6	44·6	44·5	43·5	43·0	43·0	45·0	44·5	43·7	41·3	39·5	38·3	39·5	
4	40·5	38·8	34·5	34·7	38·7	40·5	40·7	40·4	40·7	41·0	42·4	43·6	44·7	45·0	44·1	43·4	42·6	42·6	41·9	41·4	41·1	41·2	41·2	41·1	
5**	41·5	41·7	41·9	42·2	41·7	40·9	40·4	40·3	39·7	40·2	42·5	43·8	45·0	44·8	44·0	42·6	44·3	46·0	44·5	40·5	36·7	34·6	39·7	40·2	
6	37·6	41·0	43·6	41·8	41·3	41·6	40·2	40·2	40·5	40·2	40·5	40·6	42·6	43·7	43·5	43·4	42·3	41·2	36·5	41·2	41·2	40·9	41·1	41·1	
7	41·3	41·5	41·5	41·6	41·5	41·2	40·6	39·9	39·6	40·3	40·8	42·4	43·4	43·6	43·0	42·6	42·4	41·8	41·6	41·4	40·8	40·5	39·8	40·1	
8**	40·8	41·3	42·4	41·4	41·4	40·7	39·9	39·9	39·9	40·7	41·8	42·7	44·1	45·8	45·8	44·7	43·8	42·3	41·6	41·3	40·6	39·7	35·0	26·8	
9**	24·9	31·1	30·0	35·1	36·3	39·5	40·2	39·5	38·7	39·2	41·7	42·4	44·4	46·2	43·2	44·6	42·7	42·2	36·3	38·3	39·6	38·7	34·2	33·1	
10**	36·2	38·8	39·5	39·8	39·5	40·0	39·7	41·8	39·7	40·6	41·3	43·1	45·0	43·9	42·8	39·4	37·3	40·7	40·7	39·1	37·1	33·8	38·9	38·1	
11	34·4	33·6	35·8	37·5	40·7	38·8	38·5	38·6	40·4	41·3	41·8	44·0	44·6	43·8	42·5	41·8	41·3	41·3	41·1	40·5	40·2	39·8	40·0	40·1	
12	40·5	40·8	41·0	41·2	41·2	40·6	40·2	39·3	38·2	38·4	39·9	42·2	43·4	42·5	41·5	41·2	41·3	41·1	40·8	40·8	40·8	39·8	40·1	40·2	
13	40·5	40·8	41·1	41·5	41·1	40·6	40·1	39·3	39·3	39·7	40·8	43·0	45·2	44·4	43·9	43·4	42·7	42·2	41·5	41·2	40·7	39·6	40·3	40·3	
14**	40·5	38·9	40·2	40·8	40·3	40·4	40·3	40·8	40·9	41·2	42·6	44·5	46·6	45·0	46·2	44·3	41·8	40·8	41·2	39·5	32·8	35·4	37·5	37·9	
15	37·8	39·7	41·8	41·0	41·4	41·1	41·2	41·0	39·4	38·4	40·0	42·3	44·5	44·4	43·4	41·8	38·8	38·8	41·4	40·5	39·1	38·5	39·7	39·7	
16	40·2	40·8	40·8	41·2	41·2	40·5	40·5	40·2	39·3	39·5	41·2	43·2	44·8	45·0	44·5	43·1	41·4	42·5	41·7	41·0	40·6	38·7	39·9	38·4	
17*	38·9	40·0	40·7	40·8	41·0	40·9	40·4	40·0	39·0	38·9	39·5	41·0	42·9	44·0	43·2	42·3	41·5	41·5	41·5	40·9	40·8	40·5	40·3	40·3	
18*	40·4	40·5	40·6	40·7	40·8	40·9	40·0	39·9	39·5	39·6	40·3	42·5	44·6	44·5	43·2	42·9	42·3	41·9	41·4	40·9	40·6	40·4	40·3	40·4	
19*	40·5	40·5	40·5	40·6	40·6	40·3	40·0	40·0	39·5	39·5	40·0	41·9	43·8	43·8	42·7	41·9	42·1	41·9	41·6	41·4	40·7	40·4	40·5	40·4	
20	40·3	40·7	40·8	40·7	40·7	40·5	40·3	39·8	39·4	39·2	40·7	43·5	44·8	44·2	42·6	42·3	42·2	41·8	41·3	41·0	40·6	39·3	39·2	38·8	
21	39·5	40·4	39·5	40·1	39·6	39·9	39·5	39·4	39·3	39·8	41·1	43·0	46·5	45·9	45·9	43·0	43·0	42·9	41·7	41·7	40·5	39·9	39·9	39·3	
22	39·5	37·0	36·5	38·0	39·3	39·9	39·8	39·5	39·1	40·0	40·7	44·5	47·5	47·7	44·8	44·1	42·6	41·8	41·3	41·2	40·4	40·1	39·1	37·1	
23*	38·8	40·3	40·4	40·5	40·2	39·9	39·5	38·8	38·2	38·8	40·2	41·4	43·3	43·6	43·2	41·8	41·3	42·3	42·0	40·8	40·3	40·3	39·8	40·1	
24	40·2	40·7	40·6	40·6	40·2	40·2	39·5	38·7	38·3	38·8	40·7	41·9	44·5	45·4	43·9	42·7	42·0	41·3	41·1	41·1	39·7	38·6	37·3	38·4	
25	40·1	41·0	40·9	40·7	40·5	40·2	39·6	38·7	37·6	37·7	39·0	41·4	43·6	43·5	42·6	42·6	42·6	43·5	43·2	41·5	40·5	40·2	40·2	40·5	
26	40·8	41·0	40·9	41·1	41·1	40·7	40·2	39·6	38·9	39·5	40·5	42·8	44·7	45·0	43·5	43·1	43·7	42·1	41·6	41·5	39·4	37·8	37·7	38·1	
27	39·0	40·2	40·8	40·6	40·8	40·6	39·8	39·3	38·8	38·8	39·7	41·2	43·0	42·7	41·6	40·9	41·3	41·3	40·9	40·6	40·4	40·0	40·1	40·1	
28	40·2	40·3	40·1	40·4	40·3	40·1	39·8	39·1	38·6	39·3	40·9	43·1	45·6	44·3	43·3	42·0	40·6	41·6	42·2	41·4	41·0	39·6	38·6	39·7	
29	39·7	40·2	40·4	40·3	39·8	39·8	40·2	39·0	39·2	39·4	41·2	42·7	45·6	46·0	43·8	41·5	41·8	41·2	41·3	40·2	40·8	39·5	39·7	38·9	
30	39·3	40·6	40·1	40·3	39·8	40·7	39·9	39·4	38·9	39·6	40·9	42·3	43·9	44·0	42·3	40·8	41·0	41·1	40·7	39·5	39·3	38·6	39·1	39·1	
31	39·7	39·3	40·7	40·4	40·0	40·2	40·0	39·2	38·8	39·6	41·4	43·3	45·1	46·4	44·9	43·1	42·0	41·4	41·7	41·2	40·4	39·9	40·0	40·1	
Mean	39·2	39·8	40·0	40·3	40·5	40·5	40·1	39·8	39·4	39·8	41·0	42·7	44·5	44·6	43·6	42·6	42·0	42·0	41·4	40·9	40·0	39·3	39·3	39·0	
Mean*	39·7	40·4	40·5	40·5	40·6	40·6	40·1	39·8	39·2	39·6	40·4	42·0	43·8	44·0	43·1	42·2	41·8	41·9	41·6	41·0	40·7	40·3	40·3	40·4	
Mean**	36·8	38·4	38·8	39·9	39·8	40·3	40·1	40·5	39·8	40·4	42·0	42·9	45·0	45·1	44·4	43·1	42·0	42·4	40·9	39·7	37·4	36·4	37·1	35·2	
February.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	39·6	36·6	37·6	38·3	39·4	39·9	40·0	39·1	39·2	39·2	40·8	44·5	46·4	46·1	44·3	42·9	41·6	41·5	41·1	41·3	40·1	37·1	38·8	37·4	
2	39·3	40·1	40·2	40·3	40·5	40·4	40·0	39·6	39·1	39·9	41·4	43·5	45·4	46·7	45·4	43·5	42·0	41·7	41·1	40·6	40·1	40·1	39·5	40·3	
3*	40·7	40·4	40·4	39·7	40·3	39·1	39·5	38·7	37·7	38·1	40·1	43·1	45·3	45·0	43·7	42·1	41·5	41·3	41·1	40·8	40·8	40·9	40·8	40·8	
4*	40·8	40·8	40·9	40·4	40·0	40·2	39·7	38·9	37·8	38·3	40·5	42·8	44·9	45·7	44·8	42·8	41·7	41·5	41·3	41·1	40·8	40·7	40·7	40·5	
5*	40·2	40·4	40·2	40·6	40·1	39·1	39·2	38·6	37·6	38·1	40·4	42·8	44·6	45·5	44·9	43·8	42·0	41·5	41·2	41·1	40·6	40·5	40·5	40·5	
6	40·5	40·5	40·5	40·5	39·6	39·4	39·4	38·4	36·9	37·6	41·0	43·2	45·8	46·9	46·9	48·4	45·4	44·2	37·4	40·5	39·9	38·6	32·7	29·8	
7	37·8	37·4	38·5	37·9	39·1	39·9	39·4	38·4	37·7	37·5	39·6	40·4	43·1	44·0	43·8	42·2	41·2	40·9	40·9	39·7	38·4	37·0	36·6	39·1	
8	39·5	39·6	40·0	39·7	40·2	39·6	39·3	39·1	37·0	37·5	39·1	41·7	42·3	44·0	43·3	44·0	43·9	44·3	45·3	44·3	43·1	38·7	38·9	36·6	
9**	36·3	38·7	39·9	40·7	40·8	40·8	39·4	38·9	39·4	40·3	41·4	41·8	44·4	46·5	45·1	40·4	41·3	38·3	35·5	38·5	38·1	38·1	36·9	39·3	
10	40·3	40·1	40·0	39·8	39·3	40·3	39·3	38·5	38·0	38·3	40·5	43·1	44·6	45·4	45·5	44·0	37·2	40·8	38·4	36·7	38·9	38·8	39·1	39·4	
11	40·0	40·2	40·5	41·2	40·8	39·5	39·2	38·4	36·7	37·5	39·8	42·4	45·3	45·3	42·5	43·0	38·3	40·8	41·1	40·3	39·6	38·1	37·9	37·4	
12	37·2	40·2	41·3	41·6	40·3	39·8	39·2	38·4	37·5	37·9	40·2	42·2	44·3	43·7	44·1	41·7	41·4	41·6	41·3	39·4	38·5	39·7	39·6	39·5	
13	41·4	40·0	40·0	39·2	40·0	40·0	39·4	38·7	38·5	38·8	40·2	42·5	44·4	45·3	45·2	44·1	43·1	41·9	39·3	40·1	40·7	40·2	39·7	39·8	
14*	40·1	40·3	40·8	40·9	40·0	39·6	39·4	38·5	37·3	37·1	38·7	40·9	42·5	42·3	42·5	41·8	40·3	40·6	40·8	40·4	40·1	39·0	39·3	39·6	
15*	39·7	39·8	39·8	40·0	40·1	39·9	39·6	39·0	37·6	37·6	39·4	41·1	42·9	44·4	43·4	42·6	42·0	41·8	41·2	40·7	40·2	40·0	39·7	39·6	
16	39·6	39·8	40·0	40·1	39·9	39·8	39·4	39·1	37·9	38·0	38·7	40·2	43·1	44·6	44·7	45·6	45·1	43·3	41·1	41·6	41·0	40·6	38·5	35·6	
17**	34·7	37·7	37·7	34·2	32·1	34·2	42·6	44·2	40·6	42·1	42·5	43·9	47·9	49·5	46·6	45·9	42·7	35·7	29·7	(40·0)	(32·7)	31·4	28·0	27·0	
18**	22·7	23·7	25·7	30·3	32·9	37·3	35·9	35·7	36·8	39·0	40·0	42·5	42·4	43·3	44·0	42·8	42·0	41·7	40·4	42·0	41·4	39·3	37·6	37·5	
19	31·3	31·9	34·0	36·9	40·2	35·4	35·7	37·8	38·0	38·4	40·9	43·4	45·9	43·9	47·9	47·8	41·3	41·0	40·0	37·9	35·5	37·7	38·6	38·6	
20	37·1	35·0	35·6	38·4	39·0	38·1	38·4	37·3	36·5	37·0	38·1	39·9	42·0	43·0	43·5	42·8	41·2	40·8	41·1	41·3	39·3	39·6	38·5	35·1	
21	37·4	38·3	37·7	37·3	36·3	36·1	36·9	36·5	35·5	36·1	37·5	40·1	41·0	42·2	44·0	43·2	41·2	41·2	41·2	42·0	39·2	38·2	37·7	35·1	
22	35·1	36·2	38·1	39·5	40·0	38·7	38·3	37·4	36·6	37·8	40·5	43·4	43·6	45·9	46·7	45·7	39·4	40·5	41·4	40·2	32·1	31·8	35·0	30·0	
23	32·8	33·8	36·4	34·8	36·3	37·0	38·5	37·5	37·5	37·7	38·6	40·2	43·1	43·5	43·0	42·0	40·8	40·3	39·5	37·9	36·5	35·5	36·2	37·9	
24	39·1	37·9	36·8	38·2	39·6	38·1	38·0	36·8	37·7	38·2	40·4	43·3	44·5	44·9	44·2	43·3	42·1	41·4	41·2	39·3	39·5	39·2	38·8	38·7	
25	38·8	38·9	39·2	38·9	38·6	38·8	38·6	38·4	38·0	37·9	39·7	42·3	43·4	44·4	45·0	43·8	42·7	42·3	41·8	40·7	38·2	36·3	38·6	33·3	
26	37·2	37·7	38·6	39·2	39·2	38·7	38·6	38·0	37·6	37·9	39·9	42·5	43·8	44·3	43·9	42·7	40·9	41·2	41·0	37·9	32·9	34·4	29·9	33·4	
27**	34·0	32·0	32·7	26·0	31·6	33·3	34·3	38·6	37·7	38·3	39·6	43·8	46·5	47·4	46·8	46·0	42·2	37·3	45·7	46·7	20·7	25·2	24·2	21·2	
28**	18·8	30·1	32·7	29·1	39·1	46·1	46·6	43·3	44·6	44·1	43·4	45·8	47·3	45·9	41·7	44·0	42·1	38·4	40·2	40·6	39·7	39·4	39·0	38·6	
Mean	36·9	37·4	38·1	38·0	38·6	38·9	39·1	38·6	38·0	38·4	40·1	42·4	44·3	45·0	44·6	43·7	41·7	41·0	40·4	40·5	38·2	37·7	37·2	36·5	
Mean*	40·3	40·3	40·4	40·3	40·1	39·6	39·5	38·7	37·6	37·8	39·8	42·1	44·0	44·6	43·9	42·6	41·5	41·3	41·1	40·8	40·5	40·2	40·2	40·2	
Mean**	29·3	32·4	33·8	32·1	35·3	38·3	39·8	40·1	39·8	40·8	41·4	43·6	45·7	46·5	44·8	43·8	42·1	38·3	38·3	41·6	34·5	34·7	33·1	32·7	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
March.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	36·5	36·7	40·1	38·3	38·9	39·0	38·0	37·7	38·2	37·1	39·4	43·0	44·3	44·8	45·5	43·5	41·0	41·0	36·7	37·2	38·3	37·2	34·4	36·4	
2	38·3	39·4	39·2	39·2	40·3	38·2	37·9	36·8	35·6	36·3	39·8	43·4	45·3	46·4	43·8	43·3	41·8	40·8	39·8	37·2	39·7	39·1	38·6	38·3	
3	38·3	38·8	39·2	39·7	39·2	38·9	38·1	36·9	36·2	37·1	39·7	42·7	45·2	45·3	43·4	43·6	41·6	40·6	34·1	37·8	38·7	38·0	36·0	36·5	
4*	37·6	41·2	39·3	38·4	38·6	37·8	38·0	38·0	37·7	38·6	39·7	41·7	43·2	43·7	43·2	41·0	40·0	40·0	40·1	39·8	39·8	39·7	39·5	39·2	
5	38·7	38·7	38·9	38·7	39·6	37·7	37·1	36·0	36·1	37·1	39·7	43·4	45·8	44·8	44·6	42·4	41·1	40·8	39·9	39·7	39·6	39·4	39·3	39·2	
6*	39·2	38·2	38·0	37·9	38·3	38·0	37·9	37·7	37·4	38·5	41·1	43·2	44·3	44·4	42·9	41·5	39·9	39·5	39·9	38·8	37·2	39·5	38·8	37·2	
7	38·3	39·7	39·5	38·5	38·0	36·9	36·9	36·3	36·1	37·4	39·4	43·0	46·4	46·7	45·8	43·9	41·9	37·7	37·9	39·5	38·1	37·6	36·9	34·0	
8**	34·2	34·8	32·9	31·1	34·2	35·6	38·0	38·7	42·4	42·2	43·7	45·9	47·9	48·8	47·9	43·1	38·7	40·0	38·2	30·9	36·2	39·0	39·5	39·4	
9	39·5	40·7	43·3	42·0	40·3	38·9	39·3	38·5	37·4	37·4	39·5	42·9	46·0	46·2	45·4	43·7	38·6	38·5	39·7	38·7	38·2	36·0	38·6	39·4	
10*	40·1	40·0	38·6	40·6	38·3	37·7	37·4	37·2	36·7	37·6	41·2	46·2	49·2	48·4	46·7	43·6	40·9	40·2	40·3	39·9	39·6	39·7	37·4	39·2	
11**	39·8	41·3	41·4	39·6	40·7	38·4	38·0	38·8	36·5	37·9	40·0	41·8	44·1	45·5	50·4	50·2	49·6	44·9	44·8	42·6	39·3	35·4	34·4	36·0	
12	40·5	37·6	42·9	41·9	48·5	50·5	55·7	44·9	43·9	41·9	38·9	43·6	45·4	48·5	47·1	46·0	40·1	39·0	35·2	36·9	33·5	32·9	37·5	28·5	
13	28·9	33·5	33·8	31·5	36·5	35·9	33·1	33·5	35·1	36·5	38·4	42·3	44·7	44·1	45·3	42·5	40·0	39·3	39·3	38·8	38·5	37·2	35·5	33·8	
14	35·5	36·5	36·5	36·6	37·5	37·9	37·0	36·6	36·6	38·5	41·2	44·5	46·0	46·8	45·5	44·7	43·7	41·9	40·5	36·6	37·1	37·6	38·3	37·5	
15**	38·9	38·7	39·0	38·4	38·5	37·9	37·8	36·9	36·9	39·2	41·5	45·2	47·5	49·1	50·6	50·5	47·5	40·5	38·8	35·6	29·9	33·5	37·3	33·0	
16**	26·6	30·5	35·2	35·0	41·9	42·5	41·5	42·3	42·5	44·0	43·5	45·2	47·2	43·3	43·2	41·4	40·3	37·5	39·1	38·9	38·2	38·4	37·5	35·3	
17	33·3	33·1	35·6	36·8	34·8	41·2	34·7	35·8	35·0	35·9	37·4	39·8	43·8	43·6	45·3	43·2	41·7	39·0	38·5	38·7	36·0	38·0	39·0	38·5	
18	40·0	38·8	38·9	38·3	38·8	39·8	37·8	36·0	34·3	35·5	39·3	43·6	46·6	48·3	46·1	44·8	41·0	37·0	38·5	38·9	39·8	39·3	39·3	39·2	
19	37·9	37·9	37·5	38·0	39·0	37·5	37·1	35·9	35·1	35·8	38·9	41·4	44·8	44·8	44·8	43·6	42·9	41·8	41·1	40·0	37·2	31·9	34·1	38·0	
20	39·3	38·1	37·2	35·5	35·1	34·8	35·4	34·3	36·0	37·2	39·9	44·4	45·1	45·9	45·4	46·4	41·0	40·8	38·5	31·8	38·5	37·4	34·2	34·9	
21**	34·5	32·2	28·5	34·8	32·2	40·0	43·8	36·5	35·6	36·6	40·9	45·5	47·5	46·3	47·0	45·2	40·9	31·8	30·8	34·0	33·7	35·6	39·0	36·9	
22	38·1	38·8	37·1	37·6	37·8	38·4	37·6	38·8	38·2	37·5	38·8	40·9	46·0	46·2	44·0	43·0	40·6	35·6	38·6	38·6	37·1	38·1	37·7	38·8	
23	39·2	39·2	38·8	38·5	37·8	36·8	35·7	33·9	34·5	36·3	40·1	43·9	45·8	47·6	47·1	43·4	41·2	40·0	38·0	38·3	38·9	35·3	36·7	36·7	
24	36·5	38·4	39·6	37·7	36·6	36·5	36·5	36·3	37·0	36·5	39·6	43·3	45·9	47·5	45·9	42·4	38·0	39·0	39·9	39·5	35·2	37·0	38·8	39·4	
25	38·8	38·8	39·8	38·1	36·8	40·3	37·0	35·3	34·4	36·0	39·4	42·8	45·9	46·3	44·8	43·8	40·9	37·9	39·5	39·2	39·4	38·5	39·7	39·4	
26	39·3	39·9	38·0	38·1	37·7	37·4	36·5	35·0	34·6	35·3	38·6	43·0	45·2	44·9	44·0	41·9	39·9	40·1	39·9	38·7	39·0	38·7	36·9	33·1	
27	34·9	36·3	35·7	35·1	36·1	37·1	35·9	34·7	35·9	37·0	41·0	45·7	47·0	46·7	44·9	42·0	39·9	39·9	40·1	39·7	38·9	39·5	38·4	38·4	
28	38·9	37·6	37·3	34·9	37·0	36·6	36·6	35·9	35·1	36·9	40·9	44·3	45·9	46·1	44·1	43·3	40·3	39·4	39·9	39·5	38·7	37·4	31·8	35·0	
29	36·0	37·9	39·9	40·4	40·4	36·5	36·5	34·4	33·8	36·0	39·0	42·1	46·1	46·7	44·4	42·1	39·9	38·2	38·8	38·9	39·1	38·5	38·0	37·7	
30*	39·0	41·1	40·0	38·1	37·7	37·5	36·0	34·1	34·1	36·1	39·2	42·8	45·2	45·4	44·4	42·2	40·2	38·9	39·2	39·3	39·2	39·2	39·2	39·5	
31*	39·5	38·8	38·8	38·5	37·9	37·7	36·0	34·9	34·4	35·8	39·0	42·4	44·7	45·4	44·3	41·9	40·0	39·3	39·5	39·6	39·1	39·3	38·9	38·2	
Mean	37·3	37·9	38·1	37·7	38·2	38·4	37·9	36·7	36·6	37·5	40·0	43·4	45·7	46·1	45·4	43·7	41·1	39·4	38·9	38·2	37·8	37·6	37·5	37·0	
Mean*	39·1	39·9	38·9	38·7	38·2	37·7	37·1	36·4	36·1	37·3	40·0	43·3	45·3	45·5	44·3	42·0	40·2	39·6	39·8	39·5	39·0	39·5	38·8	38·7	
Mean**	34·8	35·5	35·4	35·8	37·5	38·9	39·8	38·6	38·8	40·0	41·9	44·7	46·8	46·6	47·8	46·1	43·4	38·9	38·3	36·4	35·5	36·4	37·5	36·1	
April.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	41·2	38·4	38·1	37·6	36·7	36·5	37·1	36·0	37·3	38·9	38·8	43·3	45·4	45·8	44·8	42·3	40·2	39·4	38·7	37·0	38·0	39·3	38·8	37·1	
2	36·3	37·0	37·4	37·9	37·4	37·1	36·1	34·1	33·9	35·2	38·9	43·0	44·9	46·3	46·2	42·9	41·4	40·0	39·7	39·5	39·4	36·2	38·8	38·9	
3	38·8	40·7	38·2	37·7	35·8	37·1	35·7	35·7	36·6	37·0	40·1	42·9	46·0	46·1	45·8	43·4	42·4	40·1	38·7	38·9	39·3	38·9	39·2	35·6	
4**	38·0	38·4	38·4	36·9	37·7	37·1	35·3	34·0	35·6	37·7	44·1	47·4	49·7	49·5	45·2	43·8	43·2	39·9	37·6	40·0	40·2	39·6	39·6	38·0	
5	38·1	37·3	36·8	36·2	36·4	35·6	34·4	33·1	33·4	35·5	38·9	41·5	43·3	43·6	43·5	41·5	38·9	37·8	37·2	38·6	39·0	38·4	37·9	39·6	
6	36·3	35·6	36·7	37·2	37·1	36·5	35·1	32·5	32·7	35·2	38·2	41·7	44·1	44·9	43·2	41·2	40·0	39·1	38·9	38·5	38·8	39·0	39·0	38·5	
7	38·3	37·9	37·7	37·4	37·3	36·9	34·9	33·4	33·7	35·9	38·9	41·8	44·2	44·6	43·7	41·9	41·0	40·2	39·5	38·9	39·0	37·2	37·1	37·7	
8	38·9	40·1	37·6	37·2	36·7	37·0	35·7	34·5	34·0	35·6	38·7	42·6	45·0	45·1	43·9	42·1	40·1	39·3	38·1	38·0	37·5	38·0	38·4	38·7	
9*	37·7	39·0	37·0	37·2	37·2	36·4	34·9	32·7	31·9	33·6	36·7	40·1	43·3	44·0	43·4	41·6	39·6	38·5	38·1	38·1	38·0	38·0	38·0	38·0	
10	37·9	37·8	37·8	37·7	37·5	37·0	35·8	33·5	31·9	32·8	35·3	41·4	45·6	46·1	45·5	42·3	39·8	38·4	37·6	36·8	35·8	37·0	37·1	37·0	
11	37·7	41·1	37·6	36·0	36·7	36·5	34·8	32·6	30·8	32·1	36·0	40·1	43·9	46·3	45·7	43·1	40·9	39·0	38·7	38·6	38·0	35·9	37·4	37·7	
12	37·9	37·9	37·7	37·7	37·2	36·2	33·9	31·4	30·0	31·6	35·0	39·7	44·0	45·7	45·5	42·7	40·9	39·3	37·8	38·2	38·3	36·6	33·3	31·8	
13	34·1	34·1	35·3	35·2	35·3	35·3	34·6	32·5	31·3	32·4	36·0	38·9	43·0	45·2	44·5	44·0	40·9	38·2	38·0	38·2	37·2	36·9	37·3	37·3	
14*	37·2	37·2	37·2	37·1	37·0	36·5	35·7	32·7	31·8	33·0	36·2	40·7	44·1	44·7	43·6	41·4	39·5	38·4	37·3	37·9	38·1	38·2	37·8	37·6	
15	37·5	37·5	37·3	37·3	36·5	35·4	34·3	32·6	31·3	32·5	36·6	41·5	44·6	46·0	45·3	42·6	41·9	40·6	40·1	40·1	39·5	35·2	32·6	35·1	
16**	34·9	27·2	27·6	35·3	34·5	29·6	27·3	28·1	33·4	35·4	38·1	42·0	45·4	47·1	44·6	43·4	43·4	38·9	34·6	33·7	32·0	35·1	37·0	38·2	
17**	36·5	35·1	38·5	36·2	34·7	35·5	34·8	33·1	32·6	35·1	38·4	42·0	45·6	44·8	44·8	42·6	39·2	38·6	37·6	35·6	36·8	33·6	34·4	34·0	
18	33·5	36·7	36·8	36·1	36·0	37·0	35·7	34·0	34·9	37·0	40·5	42·9	45·0	44·6	42·9	41·0	39·6	37·6	35·9	36·1	35·8	37·1	36·6	34·8	
19	36·4	35·9	35·3	37·3	36·9	34·7	32·9	32·1	31·7	33·4	36·9	40·1	42·2	43·7	43·4	41·3	39·0	38·0	37·2	35·9	36·5	37·0	37·6	37·7	
20*	37·0	37·0	36·5	35·6	35·6	35·9	34·5	33·0	32·0	33·7	37·2	41·5	43·4	44·0	42·4	39·5	37·8	36·7	36·6	36·7	36·7	36·8	37·0	37·4	
21	36·8	36·4	35·6	32·7	34·0	38·9	36·4	32·9	32·6	34·5	36·7	38·2	40·5	41·8	41·6	39·5	38·1	37·5	36·9	35·9	35·0	33·8	33·8	33·6	
22	33·0	31·5	30·9	33·3	33·6	34·3	34·0	32·7	32·1	33·2	35·9	39·7	41·0	41·7	41·4	39·6	38·5	37·4	36·6	36·6	36·8	36·9	37·0	37·1	
23*	37·3	37·3	37·1	36·7	35·9	34·4	33·0	32·2	32·9	34·8	38·2	40·5	42·9	43·7	42·6	41·0	39·9	38·7	37·4	37·4	37·0	37·3	36·6	37·2	
24*	37·0	36·8	36·3	35·4	35·0	34·3	33·0	32·4	32·6	35·1	37·7	40·6	42·5	44·2	43·0	41·2	39·4	38·2	37·2	37·0	36·9	37·2	37·2	36·4	
25	36·9	36·6	36·1	36·0	35·3	34·4	33·2	33·3	33·6	33·8	36·1	39·6	42·1	43·3	42·1	41·1	39·7	38·6	37·1	36·1	36·4	35·1	35·6	34·8	
26	35·5	36·2	36·5	35·9	35·0	33·9	32·6	31·4	31·4	33·0	36·0	40·0	43·7	45·0	44·5	42·5	40·8	40·0	38·9	38·5	37·8	36·6	35·8	33·6	
27	34·0	34·2	34·1	33·9	34·0	33·0	32·3	31·7	31·9	33·4	36·0	39·8	43·1	44·4	43·4	42·7	41·6	40·1	38·8	38·1	38·0	37·4	36·3	36·0	
28	35·1	33·6	31·5	31·8	31·5	34·6	32·9	30·9	31·2	34·1	38·5	43·3	46·4	48·2	47·3	43·8	43·3	41·0	38·8	37·6	34·0	34·5	35·0	33·6	
29**	34·4	35·2	34·5	34·7	33·2	32·5	32·3	31·2	31·8	35·4	38·0	41·4	45·9	45·6	44·6	44·1	42·4	39·6	37·2	36·1	33·7	30·4	29·4	29·5	
30**	32·2	31·2	32·0	32·9	32·6	31·0	31·7	31·3	31·7	34·8	37·0	41·5	44·9	46·4	45·8	46·0	43·2	39·6	38·5	37·6	35·6	35·6	36·6	36·6	
Mean	36·6	36·4	36·0	36·0	35·7	35·4	34·2	32·7	32·8	34·5	37·7	41·3	44·2	45·1	44·1	42·2	40·6	39·0	37·8	37·5	37·2	36·6	36·6	36·3	
Mean*	37·2	37·5	36·8	36·4	36·1	35·5	34·2	32·6	32·2	34·0	37·2	40·7	43·2	44·1	43·0	40·9	39·2	38·1	37·3	37·4	37·3	37·5	37·3	37·3	
Mean**	35·2	33·4	34·2	35·2	34·5	33·1	32·3	31·5	33·0	35·7	39·1	42·9	46·3	46·7	45·0	44·0	42·3	39·3	37·1	36·6	35·7	34·9	35·4	35·3	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER—*continued.*

May. 12° + Tabular Quantities.

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	37·4	36·6	36·6	35·7	35·4	33·9	31·8	30·8	31·2	32·9	35·5	38·5	41·8	43·3	42·5	41·5	39·6	38·6	38·5	37·2	37·4	35·8	37·4	36·9
2	36·7	37·1	40·2	39·2	38·9	37·3	36·5	34·9	33·6	34·5	36·5	38·3	39·2	40·2	39·3	38·1	37·6	37·2	37·2	36·3	36·8	37·6	37·6	36·1
3	38·2	38·4	34·6	36·0	37·8	36·6	33·8	33·6	34·7	34·2	35·2	39·2	41·3	40·8	39·7	38·8	37·6	37·2	37·2	37·6	37·6	36·8	37·7	37·0
4	36·1	35·8	36·7	38·0	33·8	32·8	33·4	33·4	35·1	37·6	39·2	40·2	41·2	41·9	41·2	40·1	39·0	38·2	37·4	36·9	37·4	37·2	37·3	37·8
5*	37·2	35·7	35·5	34·9	34·4	32·8	31·8	32·2	33·4	34·5	38·4	42·4	44·3	43·0	41·2	39·3	37·5	36·3	35·8	36·0	36·5	36·7	36·8	37·0
6	37·1	36·8	36·7	36·3	35·2	33·7	32·6	31·9	32·1	33·8	37·7	42·1	45·2	44·6	43·6	41·7	39·1	37·0	36·1	36·8	35·6	35·9	36·8	36·3
7	36·9	36·9	36·5	36·2	35·9	34·4	32·6	31·7	33·0	34·1	36·5	40·0	42·1	42·0	41·7	40·6	38·8	36·2	35·0	34·8	33·8	33·1	35·2	36·3
8	36·5	36·4	36·2	35·6	34·4	33·1	32·0	31·8	32·5	34·6	37·3	40·7	42·6	42·5	41·1	40·1	38·8	37·5	36·1	35·1	33·0	33·5	34·3	35·1
9	36·1	36·2	36·7	36·8	34·8	33·9	33·3	33·9	35·5	37·8	40·1	41·1	42·1	41·1	41·2	39·4	38·6	37·9	37·5	36·9	37·0	36·9	37·1	36·8
10*	37·1	36·5	36·3	36·0	35·1	33·4	32·5	32·5	32·0	34·4	38·5	41·3	41·8	41·7	41·0	39·9	39·1	38·1	38·1	37·7	37·1	37·2	36·9	36·6
11	36·5	36·3	36·1	35·8	34·8	33·5	32·1	31·5	32·2	34·7	38·6	42·4	43·9	43·1	40·8	39·1	37·5	37·5	36·1	37·2	37·3	37·4	37·5	36·3
12	33·8	32·6	32·6	34·4	36·2	38·7	33·6	31·2	31·7	33·9	37·2	40·2	42·8	43·2	42·2	40·7	39·7	38·4	36·1	36·8	36·4	33·7	35·1	35·9
13**	35·8	35·3	37·3	35·5	31·8	29·8	27·6	29·4	30·9	32·9	36·9	40·4	45·1	47·1	41·6	43·7	44·1	38·2	37·0	38·0	35·5	36·2	36·5	35·1
14**	34·6	35·1	36·7	35·9	34·4	32·4	32·4	32·4	33·2	33·4	34·6	37·1	41·1	44·4	43·6	44·6	42·7	40·7	38·9	36·5	34·6	29·0	33·0	33·6
15**	36·4	37·3	35·3	35·1	37·0	33·7	31·9	33·4	33·0	35·5	38·8	41·0	43·6	44·9	43·0	38·6	38·2	36·6	36·0	34·2	32·0	30·4	33·2	36·7
16**	38·7	36·8	34·8	38·6	33·4	32·0	30·8	29·8	30·5	33·2	37·2	41·8	41·9	42·9	43·3	41·2	39·9	35·8	36·9	36·9	33·5	35·2	36·3	34·2
17	33·4	34·9	35·0	38·0	36·5	33·4	33·9	31·6	31·5	35·0	38·3	42·4	43·3	42·7	41·5	39·1	37·4	36·3	34·3	35·2	36·4	36·9	37·0	36·8
18*	36·6	36·3	36·3	35·6	34·5	32·9	31·7	31·0	31·2	34·2	37·5	40·7	43·5	43·2	42·3	40·1	38·1	36·9	35·9	36·0	34·4	34·0	34·8	34·2
19	33·1	33·3	32·7	33·5	32·5	31·7	31·3	31·9	32·7	35·3	39·6	43·0	43·1	42·8	41·2	39·3	38·2	37·5	35·7	34·1	33·4	34·6	33·8	34·9
20	35·0	34·1	34·4	34·2	33·8	32·4	31·6	30·7	31·8	35·3	39·1	42·7	44·5	43·4	43·1	41·0	39·2	37·6	36·8	36·3	36·5	37·0	36·7	36·2
21*	36·2	35·4	35·1	35·5	33·8	31·8	30·1	29·4	30·2	30·8	35·8	38·8	40·8	41·3	40·1	38·5	38·1	37·6	37·2	37·6	37·8	37·8	37·6	37·6
22*	37·3	36·6	35·4	35·4	34·9	32·8	30·9	30·7	32·2	35·3	(37·9)	(40·3)	42·3	42·3	41·2	41·2	40·2	39·3	38·7	38·4	38·2	38·6	38·4	38·0
23**	37·5	36·6	35·0	34·3	32·7	33·6	36·6	39·6	35·6	38·6	42·9	44·4	45·0	44·3	42·7	41·2	38·2	37·2	36·6	36·7	36·8	36·6	36·6	36·3
24	36·6	36·2	35·9	35·3	34·2	32·0	30·6	30·2	31·6	34·2	37·0	40·3	42·6	43·0	43·0	40·9	38·9	36·6	36·2	36·2	36·2	34·8	36·2	37·7
25	36·1	35·1	37·9	34·0	37·9	34·0	30·1	30·7	30·9	33·1	37·7	42·7	45·1	45·7	45·3	43·3	40·1	38·3	37·2	36·2	35·1	33·7	33·8	33·8
26	32·9	36·2	37·0	35·9	35·1	33·8	31·4	30·8	31·0	34·7	39·5	42·1	42·7	44·2	43·1	41·8	39·3	38·2	37·2	34·1	34·8	36·1	36·8	37·1
27	36·2	34·3	35·3	34·9	34·4	35·0	31·9	31·6	33·3	35·5	40·3	42·9	43·9	43·3	42·2	40·4	39·1	38·0	37·6	37·3	37·2	36·2	36·6	36·2
28	36·2	36·1	35·5	35·1	33·8	31·5	29·2	28·8	29·7	34·3	37·8	42·7	46·0	46·3	44·3	42·9	41·7	39·2	37·3	37·6	37·0	37·2	37·8	37·4
29	37·1	35·7	35·2	34·4	34·0	33·2	33·9	33·2	35·2	36·5	37·8	39·3	40·6	41·0	40·8	40·0	38·5	37·1	36·8	37·3	37·4	37·2	36·9	36·3
30	35·3	35·6	35·3	34·9	33·6	32·0	31·5	32·2	33·5	37·3	37·9	39·7	41·9	41·2	41·2	40·4	38·6	38·9	38·0	37·8	35·7	35·5	37·8	36·9
31	36·5	36·0	35·4	35·1	32·8	31·3	31·0	31·3	33·4	36·4	38·6	41·7	42·8	41·2	39·1	38·1	36·9	36·6	36·4	36·7	36·1	37·0	37·5	37·2
Mean	36·2	35·9	35·8	35·7	34·8	33·3	32·1	31·9	32·5	34·8	37·9	41·0	42·8	43·0	41·9	40·5	39·0	37·6	36·8	36·5	36·0	35·7	36·3	36·3
Mean*	36·9	36·1	35·7	35·5	34·5	32·7	31·4	31·2	31·8	33·8	37·6	40·7	42·5	42·3	41·2	39·8	38·6	37·6	37·1	37·1	36·8	36·9	36·9	36·7
Mean**	36·6	36·2	35·8	35·9	33·9	32·3	31·9	32·9	32·6	34·7	38·1	40·9	43·3	44·7	42·8	41·9	40·6	37·7	37·1	36·5	34·5	33·5	35·1	35·2

June. 12° + Tabular Quantities.

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	36·8	37·4	36·8	33·9	31·4	30·2	30·1	30·7	32·2	34·4	37·6	41·2	41·8	40·3	39·5	40·1	39·3	38·5	37·7	36·9	35·5	36·8	35·8	35·4
2	37·3	36·6	36·4	35·0	35·1	35·0	34·1	31·1	30·8	32·4	34·5	38·1	39·7	40·0	39·9	39·3	38·0	36·4	36·7	37·0	36·5	37·3	36·6	37·7
3	37·3	37·5	37·0	35·4	33·9	32·1	31·0	31·0	31·7	33·8	36·1	39·0	41·7	41·5	40·4	39·6	37·8	36·8	37·0	35·2	36·0	37·0	37·6	37·2
4*	37·2	36·3	35·7	34·7	32·7	31·1	29·7	29·9	30·4	32·7	36·0	39·7	41·9	42·7	41·9	39·9	36·9	35·7	35·7	35·9	36·6	37·2	37·2	36·8
5*	36·0	35·8	35·4	34·8	33·8	31·9	30·6	30·8	32·5	35·3	38·1	39·8	41·1	41·7	41·5	40·4	38·7	37·6	37·0	36·3	36·9	37·3	37·3	37·5
6	37·1	37·6	36·2	35·4	34·8	33·5	33·1	32·1	32·1	34·9	37·3	40·0	43·1	43·6	42·6	41·8	40·6	39·0	37·0	37·0	36·6	36·6	36·6	36·2
7	36·2	35·1	38·1	33·4	32·0	30·8	30·1	30·8	33·2	34·7	37·7	41·2	43·7	43·8	44·0	42·7	40·0	38·2	36·9	36·5	36·5	36·7	36·3	35·7
8	35·4	35·0	34·5	34·4	33·6	30·8	29·8	28·6	29·5	30·9	34·6	39·0	43·0	44·8	44·6	44·0	42·3	39·0	37·8	38·2	37·8	36·2	31·8	29·7
9	31·9	34·6	35·2	34·9	33·8	30·8	29·0	30·9	31·7	33·0	36·4	39·8	42·7	44·8	44·6	44·0	42·3	39·9	39·5	37·9	35·2	33·9	34·8	34 0
10**	36·7	39·6	37·0	32·7	29·4	28·0	35·2	35·7	34·6	33·7	37·3	41·4	42·7	45·7	43·4	42·1	40·5	32·8	35·4	38·0	34·1	36·9	35·7	33·3
11**	33·6	31·1	34·3	34·0	34·0	34·7	32·0	30·7	30·3	32·7	36·7	40·1	42·1	43·7	44·1	42·8	37·9	38·2	37·7	36·1	38·0	36·0	35·3	38·7
12	35·1	35·2	37·9	36·7	34·1	32·4	30·7	31·1	30·8	32·6	34·7	39·6	41·7	43·1	42·4	40·6	37·5	37·1	35·9	36·2	36·4	36·7	36·4	35·8
13	35·7	35·3	35·0	34·7	33·8	32·4	31·0	29·7	29·7	32·0	34·3	35·5	38·3	40·9	41·3	40·2	39·1	37·4	36·0	36·5	36·6	36·4	36·1	36·1
14*	36·2	36·2	35·9	35·2	33·7	32·2	31·3	31·4	32·7	33·2	34·2	36·2	38·4	39·2	40·2	39·7	38·5	37·7	37·2	37·2	36·6	36·0	35·9	36·1
15	36·2	35·5	34·7	34·2	32·8	31·2	31·2	32·2	32·4	33·3	35·0	37·4	39·4	41·6	43·1	43·1	41·1	38·5	36·0	35·5	36·1	36·1	35·9	33·9
16	33·8	33·8	33·8	33·2	30·5	29·6	30·3	31·3	32·9	33·2	36·2	39·2	42·2	45·1	44·5	42·2	39·1	38·0	37·3	35·7	35·7	36·7	36·6	37·3
17	37·0	35·7	34·9	34·0	32·6	31·5	30·5	30·7	31·2	32·7	35·5	39·8	42·9	44·7	44·2	41·7	39·6	37·2	36·0	36·1	36·9	36·2	37·0	36·5
18*	35·7	35·4	36·2	35·8	34·2	32·2	31·2	30·7	31·5	33·2	36·2	38·6	40·9	42·2	41·7	40·0	38·2	36·8	35·8	35·4	35·6	36·1	36·4	36·3
19	36·2	35·8	35·2	34·3	33·0	31·8	31·3	31·0	31·3	32·4	36·0	40·3	42·5	42·8	41·7	39·7	38·8	37·9	37·0	36·4	36·4	36·7	36·4	36·4
20	36·1	35·5	34·5	33·5	31·9	31·0	28·5	28·5	29·8	33·5	37·9	41·8	42·3	43·1	42·8	40·5	39·2	38·1	37·5	36·7	35·5	36·0	36·2	35·6
21	35·7	35·1	35·2	34·2	32·3	30·5	29·5	29·9	31·3	33·8	36·7	39·9	41·7	42·6	43·5	42·2	39·9	38·9	36·9	36·7	36·6	36·0	35·0	34·7
22**	35·5	35·3	34·3	33·4	30·3	27·3	26·3	31·6	36·0	35·5	38·0	40·8	43·2	42·3	42·1	41·3	40·1	39·4	38·5	38·0	36·1	35·8	36·9	35·5
23**	33·8	34·1	34·0	36·2	35·6	32·5	32·6	32·5	33·2	33·9	36·0	37·2	40·3	44·0	44·0	43·6	42·4	40·3	36·5	35·5	36·5	33·3	31·5	34·0
24	35·1	34·4	35·4	37·2	37·4	33·4	33·4	29·9	28·7	30·0	34·0	38·1	40·1	41·3	43·3	41·9	39·6	37·4	35·7	35·4	35·7	35·7	35·4	35·3
25	36·2	37·1	36·2	34·6	36·2	38·1	36·2	33·3	33·6	35·0	35·9	37·5	38·3	39·5	40·0	39·5	38·3	36·3	35·6	35·2	35·5	35·6	35·8	36·1
26*	35·8	36·8	35·8	34·8	33·3	32·4	31·0	30·4	30·8	33·3	36·5	40·8	43·2	43·5	43·5	42·2	39·8	37·8	36·6	36·2	35·8	35·7	35·6	35·5
27	35·7	35·5	35·5	34·8	32·8	30·4	29·5	28·2	29·0	31·8	36·2	40·8	43·2	43·6	42·3	40·6	38·0	36·8	35·8	35·1	35·9	36·3	35·8	36·7
28	37·4	36·8	36·7	35·8	35·0	33·3	32·8	33·8	31·6	34·8	39·5	43·4	44·8	46·8	45·3	43·8	41·2	38·6	36·3	33·4	34·9	37·8	37·8	37·7
29	36·8	36·8	37·0	36·4	34·5	31·5	29·4	28·8	31·1	33·8	36·8	39·2	40·8	40·5	39·8	38·9	37·8	36·8	36·1	36·1	36·0	36·1	35·5	35·1
30**	34·8	35·5	37·3	35·3	32·8	29·8	30·3	31·1	33·8	36·8	38·3	41·3	43·0	43·2	42·8	40·2	37·9	37·6	37·2	35·8	36·1	34·8	27·4	31·1
Mean	35·8	35·8	35·7	34·8	33·4	31·8	31·1	31·0	31·7	33·4	36·3	39·6	41·7	42·8	42·5	41·3	39·3	37·7	36·7	36·3	36·2	36·2	35·6	35·6
Mean*	36·2	36·1	35·8	35·1	33·5	32·0	30·8	30·6	31·6	33·5	36·2	39·0	41·1	41·9	41·8	40·4	38·4	37·1	36·5	36·2	36·3	36·5	36·5	36·4
Mean**	34·9	35·1	35·4	34·3	32·4	30·5	31·3	32·3	33·6	34·5	37·3	40·2	42·3	43·8	43·3	42·0	39·8	37·7	37·1	36·7	36·2	35·4	33·4	34·5

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
July.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	28·1	25·6	25·3	28·5	26·6	27·7	29·9	28·8	28·9	32·5	35·8	39·3	40·7	40·9	40·6	38·9	37·7	36·5	35·7	35·7	35·8	36·2	36·0	35·2	
2	34·2	34·5	34·3	37·2	34·2	31·5	31·3	30·9	31·2	32·7	36·7	39·6	40·5	40·8	40·8	41·0	39·8	38·4	37·2	36·7	36·4	36·0	35·8	35·1	
3	34·8	34·1	33·2	32·6	31·6	29·8	29·7	29·1	29·3	30·9	33·9	36·9	40·0	40·6	39·3	38·5	38·4	37·1	37·1	36·3	36·1	37·0	35·7	35·7	
4	35·2	34·2	33·4	33·8	32·7	31·7	31·9	33·3	33·8	34·3	36·4	40·1	42·1	42·4	41·4	38·9	37·1	35·8	35·4	35·1	35·9	35·8	35·4	35·4	
5**	35·2	34·5	33·8	33·5	31·5	29·4	29·0	29·5	30·5	32·1	35·6	39·2	41·5	43·3	44·9	44·6	44·6	38·9	37·5	36·8	36·1	33·0	32·6	33·8	
6**	34·1	32·5	34·3	32·2	31·2	33·1	37·5	33·4	31·4	33·6	36·4	38·8	42·4	44·4	43·4	42·4	41·0	38·7	37·8	36·8	35·7	35·7	35·0	35·2	
7	32·8	31·7	32·2	33·6	33·2	29·9	28·6	29·2	30·3	31·7	34·8	37·9	40·3	42·2	42·2	39·8	37·7	35·8	34·3	35·1	34·8	35·0	35·3	35·0	
8	35·1	35·9	35·0	33·9	30·9	28·9	27·9	26·9	27·5	30·6	33·5	36·9	40·5	42·5	41·9	39·9	37·2	35·6	34·7	33·9	34·9	35·3	35·4	35·3	
9*	35·1	35·5	35·9	34·5	31·9	28·9	28·3	28·3	29·1	31·7	34·6	38·9	42·0	43·3	42·9	40·2	38·2	37·0	37·0	36·8	35·8	35·4	35·5	35·8	
10**	35·9	35·1	34·8	33·4	32·8	31·0	31·1	32·3	33·5	36·0	36·0	36·4	40·7	44·7	46·7	41·5	44·3	44·6	38·1	36·5	35·6	38·2	41·4	33·4	
11	31·9	31·4	30·6	33·0	30·8	28·5	26·7	26·9	26·2	28·8	32·9	36·9	39·5	40·0	40·4	40·1	38·5	37·8	35·2	35·5	35·5	36·1	34·1	35·4	
12	36·1	33·0	34·6	34·2	33·6	33·2	30·5	28·6	28·3	30·2	32·6	37·8	40·1	41·7	40·7	38·8	37·0	35·2	34·1	34·5	34·7	34·7	35·8	34·7	
13*	34·2	33·8	35·1	34·2	32·6	31·1	30·7	30·1	31·8	32·5	33·8	37·2	39·6	40·9	41·2	40·4	38·2	36·5	35·3	33·5	33·5	34·1	34·7	34·2	
14	34·2	32·9	33·2	33·1	31·9	30·7	28·8	28·1	28·0	29·8	32·6	34·8	37·2	39·7	40·6	39·9	38·8	36·5	37·5	32·8	28·3	28·1	27·8	27·1	
15**	33·5	24·8	24·0	31·1	32·7	33·1	32·9	33·7	30·0	33·4	37·3	40·8	42·5	43·0	42·8	41·9	41·2	38·9	33·4	34·6	33·9	32·3	32·3	32·4	
16**	26·5	29·0	27·5	27·1	27·8	28·5	27·3	28·0	29·2	32·4	36·6	41·2	43·4	44·1	44·5	45·9	45·2	39·6	38·1	32·9	31·9	37·6	38·1	37·3	
17	36·3	36·4	35·0	33·8	32·3	31·5	30·5	32·6	36·0	36·3	39·7	43·1	43·9	42·3	42·3	42·2	39·5	36·6	35·8	36·0	35·8	35·4	35·1	34·3	
18	34·3	34·1	33·4	33·1	31·3	29·6	29·1	28·6	29·0	30·3	34·3	40·1	42·9	43·9	41·9	40·1	38·4	35·4	34·4	34·4	34·4	34·0	34·0	34·4	
19*	33·7	33·4	33·1	32·9	32·3	31·1	30·3	29·1	28·4	31·1	34·3	37·4	38·9	39·4	39·4	38·4	37·4	36·4	35·4	35·0	35·1	35·2	34·5	34·5	
20	34·5	34·5	35·5	34·5	32·5	30·5	29·5	29·5	30·5	34·4	38·3	40·5	42·6	45·0	44·7	40·6	38·9	37·4	36·6	36·6	34·3	32·1	34·5	35·0	
21	35·6	33·9	34·0	33·7	30·7	29·7	28·6	29·1	30·1	33·1	36·9	40·0	42·9	44·6	43·9	41·1	38·5	35·7	33·8	35·2	36·0	36·0	34·7	34·9	
22	35·2	33·3	34·9	34·0	31·0	29·3	29·5	30·3	30·2	32·8	35·0	37·3	38·7	39·0	38·9	38·0	37·0	36·0	34·9	33·3	34·8	35·2	35·3	36·0	
23	36·0	36·2	34·5	33·3	33·7	31·1	29·9	29·9	30·9	32·9	35·9	38·7	40·9	41·8	40·6	37·9	35·3	33·9	34·2	34·9	35·3	35·3	35·6	35·9	
24	35·0	34·5	34·0	33·5	33·1	32·9	32·2	31·7	32·0	33·0	35·5	39·0	41·0	41·5	39·9	39·3	38·8	38·0	32·2	34·0	35·7	36·0	34·0	33·6	
25	34·6	35·0	36·3	35·0	34·5	34·2	32·7	31·4	32·4	34·0	35·2	37·3	39·3	40·9	42·0	39·9	37·9	35·9	34·4	34·2	34·1	32·9	34·6	30·2	
26	31·2	31·8	33·2	32·8	32·8	32·1	31·5	31·3	32·2	33·8	35·3	36·6	40·2	42·4	42·7	41·5	37·9	36·3	34·9	35·3	35·1	34·9	33·9	33·6	
27	33·6	34·6	35·0	34·8	34·6	34·9	32·6	31·6	32·4	33·1	36·2	39·6	41·8	41·5	40·7	39·7	38·2	36·5	35·5	34·5	35·5	35·5	36·0	35·5	
28*	35·5	34·9	34·8	34·5	33·8	33·2	32·2	32·2	32·0	32·5	34·0	36·0	37·5	39·0	39·8	40·5	39·5	37·5	36·1	35·1	35·2	35·4	35·5	35·2	34·9
29*	35·5	34·9	34·0	34·1	32·6	31·6	30·6	30·0	30·3	32·3	34·5	37·3	39·5	41·7	41·8	40·2	38·5	36·8	36·7	36·7	36·7	36·1	35·5	34·7	
30	34·5	34·6	34·3	33·3	32·8	31·7	30·6	29·6	30·8	34·2	36·5	38·8	40·2	41·5	41·0	39·2	38·4	38·2	37·5	35·6	36·8	36·5	33·6	34·5	
31	33·8	31·8	33·5	31·8	31·0	29·4	29·8	30·9	33·4	35·8	38·3	40·3	41·7	41·3	41·2	39·7	37·8	36·7	35·7	35·8	36·1	37·5	37·4	34·7	
Mean	34·1	33·3	33·3	33·3	32·1	31·0	30·4	30·2	30·7	32·7	35·5	38·6	40·9	42·0	41·8	40·3	38·9	37·1	35·7	35·2	35·0	35·1	35·0	34·4	
Mean*	34·8	34·5	34·6	34·0	32·6	31·2	30·4	29·9	30·4	32·3	34·6	37·7	39·8	41·0	41·2	39·7	38·0	36·6	35·9	35·4	35·3	35·3	35·1	34·8	
Mean**	33·0	31·2	30·9	31·5	31·2	31·0	31·6	31·4	30·9	33·5	36·4	39·3	42·1	43·9	44·5	43·3	43·3	40·1	37·0	35·5	34·6	35·4	35·9	34·4	
August.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1**	32·0	30·6	24·8	27·4	28·8	28·7	28·9	29·6	29·9	33·0	34·7	38·3	43·4	46·2	43·9	44·6	38·8	36·6	37·3	34·6	35·1	30·6	32·1	27·1	
2	28·3	28·7	30·5	34·5	30·5	30·1	30·0	31·2	33·2	36·1	38·0	38·5	39·5	39·8	38·5	37·1	36·2	35·9	36·4	35·9	35·0	33·5	34·8	34·8	
3	33·8	33·8	34·1	32·8	31·8	30·1	29·5	29·7	31·4	33·9	37·1	39·6	41·4	40·9	(39·4)	37·8	35·9	35·6	35·4	35·9	35·9	33·8	35·4	35·4	
4	34·0	33·8	34·8	33·8	32·3	31·5	31·6	32·6	34·8	37·0	40·4	42·7	44·4	44·3	42·2	39·0	36·9	35·8	35·9	36·0	35·5	34·4	31·9	30·4	
5	30·4	31·4	35·4	31·4	30·0	27·9	27·4	29·0	30·4	33·7	37·4	41·1	44·4	43·9	41·9	38·9	37·4	35·5	35·1	35·4	35·4	35·1	33·4	34·9	
6	33·9	33·7	33·7	33·5	33·0	31·3	31·1	31·0	32·1	33·8	36·2	39·1	40·9	40·9	40·1	37·1	35·8	34·9	35·3	35·9	35·4	35·4	34·9	33·9	
7*	33·7	33·1	33·1	33·1	32·4	31·2	31·0	31·3	32·7	35·4	38·2	40·0	40·8	40·9	39·8	38·0	36·4	34·9	34·9	35·5	35·5	35·0	34·8	34·4	
8*	34·2	33·9	33·8	33·3	32·5	30·8	30·5	30·7	30·8	32·2	34·8	39·0	41·7	42·8	41·4	38·9	36·9	35·7	35·7	35·7	35·2	34·7	35·1	34·7	
9*	34·6	34·8	34·6	34·5	33·2	31·8	31·6	31·0	31·2	33·7	36·6	40·6	43·0	43·5	42·5	39·9	38·0	36·3	35·5	35·6	35·4	35·5	34·9	34·5	
10	34·1	34·1	33·6	33·4	32·2	31·0	30·4	29·5	30·1	31·5	34·5	37·0	39·5	40·1	38·9	37·9	36·7	36·0	35·9	36·2	36·2	35·9	35·1	34·4	
11**	33·9	32·5	32·1	32·6	31·2	28·9	28·5	27·4	30·6	33·2	37·5	39·5	40·9	42·8	42·5	41·9	40·1	38·8	36·5	32·5	26·5	32·5	34·5	33·9	
12	33·5	32·9	32·6	32·3	30·6	30·1	29·5	30·5	30·9	32·9	34·9	37·7	39·5	40·9	40·5	38·5	36·8	35·2	34·6	34·0	33·6	33·5	34·4	34·0	
13	35·2	34·9	33·9	33·4	32·6	32·2	32·5	33·0	32·6	33·9	36·2	38·3	39·7	40·5	39·5	38·3	36·2	34·8	34·9	34·9	34·6	34·5	34·5	34·2	
14**	35·1	34·1	33·5	33·2	32·1	31·1	30·3	29·8	29·5	31·2	33·4	36·3	38·9	43·5	44·5	46·5	36·5	37·8	38·5	35·4	35·3	33·9	31·2	30·9	
15**	33·5	35·5	32·2	32·6	31·2	31·2	30·5	29·0	30·2	33·5	37·1	38·5	40·5	41·5	41·0	38·0	34·7	33·5	31·5	31·8	33·5	30·6	31·5	32·9	
16	37·0	36·5	33·8	32·7	32·5	33·5	35·5	32·0	33·5	34·4	36·5	38·5	40·5	40·5	39·1	36·5	34·1	33·5	33·0	31·5	32·6	34·4	34·3	35·1	
17	35·2	36·6	35·9	33·9	31·8	30·6	29·6	30·5	31·4	33·7	37·2	39·9	41·6	42·6	41·5	38·6	36·0	34·6	34·8	35·1	33·7	34·5	33·6	32·9	
18**	36·3	33·9	33·6	35·8	38·0	38·5	36·6	33·7	31·4	33·1	38·6	40·9	42·1	43·2	41·2	37·2	34·8	33·2	32·2	29·9	33·4	33·5	32·6	34·6	
19	33·9	34·0	38·1	35·6	31·6	32·4	30·9	28·8	30·6	31·6	34·6	38·4	42·7	41·6	40·7	37·6	34·2	33·2	32·6	32·6	34·6	35·0	34·9	34·6	
20	36·1	35·6	33·6	32·0	31·6	30·7	30·7	30·6	31·7	34·6	37·6	39·6	41·6	40·6	39·6	36·4	34·2	33·2	33·6	34·2	34·9	34·7	33·6	34·6	
21	34·6	34·7	33·1	32·6	33·6	33·6	31·0	31·2	31·4	33·7	38·0	42·0	43·1	42·4	40·6	37·6	34·9	33·9	34·2	34·6	34·6	34·6	33·6	34·9	
22	33·8	33·3	33·2	33·1	32·8	31·7	30·8	30·8	32·1	34·9	38·6	40·3	41·2	40·4	38·6	35·9	33·9	33·0	33·1	33·4	33·9	34·4	34·2	34·3	
23	34·1	33·8	34·2	34·0	33·7	31·1	29·5	28·1	28·6	30·7	35·0	38·3	40·1	41·3	41·1	39·1	37·8	35·3	34·4	35·0	34·6	34·3	33·3	34·3	
24	34·4	34·4	34·1	33·2	33·2	34·2	31·1	31·0	31·3	33·4	36·3	39·8	42·5	43·4	41·4	38·6	35·4	33·5	33·9	34·5	34·4	33·3	33·9	34·1	
25*	34·4	34·4	34·4	34·5	33·4	31·9	31·0	30·1	30·5	32·0	35·0	38·5	41·6	42·7	41·0	38·6	36·1	34·6	34·6	34·8	34·6	34·7	34·4	34·0	
26	33·8	33·9	33·7	33·4	32·6	31·7	30·6	29·5	29·6	31·6	35·7	39·4	41·8	41·2	39·4	38·5	37·0	36·6	36·8	36·5	35·7	35·6	34·5	32·7	
27	33·8	33·7	33·7	32·7	31·0	30·7	30·2	29·7	29·1	31·2	35·6	38·7	41·6	42·6	40·0	37·3	35·1	34·1	33·2	34·3	34·8	34·8	34·6	34·1	
28*	33·8	33·9	34·5	32·9	31·2	30·5	29·8	29·3	29·8	31·9	34·6	36·6	37·9	39·0	39·2	37·8	36·6	35·3	34·3	34·5	34·3	34·4	34·5	33·9	
29	33·9	33·6	33·5	33·6	32·6	32·3	30·9	30·5	30·5	31·7	34·8	38·0	40·9	41·6	39·8	37·8	36·6	35·2	34·6	31·8	33·9	34·7	34·1	34·1	
30	33·8	33·6	32·8	33·1	31·0	30·8	30·4	30·3	31·1	33·0	35·8	38·3	39·0	38·3	36·8	34·9	33·6	33·7	34·3	35·0	34·7	34·7	33·9	33·8	
31	33·7	31·9	32·0	30·4	32·7	30·9	30·9	30·7	31·7	33·4	36·0	38·6	39·6	40·2	37·5	36·0	35·4	35·0	34·6	35·1	33·3	34·5	33·7	30·6	
Mean	34·0	33·7	33·5	33·1	32·2	31·4	30·7	30·4	31·1	33·2	36·4	39·1	41·2	41·7	40·5	38·4	36·1	35·0	34·8	34·5	34·4	34·2	33·9	33·6	
Mean*	34·1	34·0	34·1	33·7	32·5	31·2	30·8	30·5	31·0	33·0	35·8	38·9	41·0	41·8	40·8	38·6	36·8	35·4	35·0	35·2	35·0	34·9	34·7	34·3	
Mean**	34·2	33·3	31·2	32·3	32·3	31·7	30·9	29·9	30·3	32·8	36·3	38·7	41·2	43·4	42·6	41·6	37·0	36·0	35·2	32·8	32·8	32·2	32·4	31·9	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
September.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	28·7	30·0	30·4	31·6	31·8	30·7	28·7	28·7	30·2	33·7	36·9	40·4	40·8	39·7	37·6	35·2	33·8	33·9	34·1	34·9	34·4	34·5	35·1	34·4
2	34·0	33·9	32·8	31·8	31·6	30·8	29·8	29·7	31·5	34·8	38·7	40·5	41·8	41·3	37·9	34·8	32·8	32·9	32·9	32·9	33·7	33·8	34·0	34·0
3*	34·3	34·2	33·7	33·3	32·4	31·7	30·7	30·8	31·7	34·0	37·7	40·5	42·2	41·4	38·8	36·3	34·2	33·5	33·8	33·7	33·2	33·1	33·8	33·6
4*	33·7	33·8	33·6	33·1	32·7	31·8	31·2	31·0	32·0	35·2	38·6	41·1	42·3	41·8	39·2	36·2	34·5	33·6	33·6	34·1	33·5	34·1	33·2	33·1
5*	33·8	33·7	33·4	33·0	32·2	31·3	29·7	28·8	30·0	33·4	37·1	40·3	42·4	42·4	40·1	36·8	34·8	34·4	35·0	34·9	34·4	33·3	34·0	33·8
6	33·6	33·4	33·4	32·7	32·1	31·5	30·9	30·4	31·4	33·4	37·3	40·1	41·3	40·3	38·3	36·8	36·1	36·4	36·5	34·5	34·2	34·1	33·7	34·1
7**	34·3	33·0	27·1	19·2	23·1	27·5	32·9	31·2	31·9	35·9	38·6	40·1	40·3	41·1	41·9	36·2	31·1	29·6	32·6	33·1	30·1	34·1	35·0	33·2
8	32·0	31·5	32·4	32·2	32·1	31·1	30·2	30·2	31·1	32·8	35·1	38·2	39·2	39·3	38·3	36·6	35·1	34·6	35·1	34·6	34·2	33·6	31·8	29·4
9	30·0	32·0	32·3	32·7	35·3	30·2	30·1	29·6	29·5	31·9	37·2	41·1	42·9	43·6	42·4	40·2	37·9	35·9	35·9	35·3	33·4	33·1	24·7	23·5
10**	28·1	34·6	30·0	27·9	31·1	31·9	41·0	37·6	38·1	38·1	39·4	40·1	39·6	40·1	39·3	38·4	36·1	28·1	32·1	30·1	25·1	29·3	31·3	30·4
11**	34·0	37·1	34·2	31·8	31·7	31·9	31·3	32·7	34·0	35·8	36·0	37·8	40·9	42·2	40·0	38·0	33·1	34·9	34·8	34·7	29·7	32·9	31·4	31·9
12	32·0	33·8	34·1	33·8	33·1	34·9	35·4	33·7	32·1	32·4	36·4	38·4	39·8	41·8	41·2	34·2	30·6	32·9	33·2	29·9	32·9	33·2	32·7	33·6
13	30·5	34·8	34·6	29·8	37·6	32·5	29·2	28·4	28·8	30·9	36·5	39·0	43·0	39·6	38·7	36·7	34·0	33·3	30·0	28·7	31·9	31·1	32·5	32·0
14**	37·5	33·7	30·6	28·7	30·2	33·6	38·6	35·9	32·7	34·9	39·5	40·5	40·5	40·4	39·6	34·9	30·5	27·1	27·7	28·8	30·8	31·8	31·4	30·5
15	29·7	36·8	30·6	30·2	30·7	31·1	29·3	29·3	29·3	32·2	34·2	37·4	38·1	37·5	36·6	34·2	29·6	29·2	27·5	29·2	31·7	33·8	33·4	33·0
16	32·7	32·1	31·1	30·4	32·2	34·9	32·4	31·0	31·1	34·0	36·3	38·6	41·1	39·1	37·7	32·1	31·1	32·8	31·6	30·6	32·3	33·1	34·2	34·2
17	32·4	31·2	31·2	33·6	32·7	30·4	30·2	29·2	30·9	32·8	35·2	38·5	38·3	37·1	35·1	34·1	33·1	33·0	33·1	32·7	31·7	32·1	33·3	33·5
18	32·8	32·2	32·1	33·1	32·2	31·6	31·1	31·2	32·3	34·1	37·1	39·8	40·1	39·4	37·1	35·1	34·6	34·3	33·5	29·5	29·6	30·1	32·3	29·1
19*	30·3	30·8	30·1	30·3	31·1	30·8	30·2	29·5	29·7	31·6	34·7	37·9	38·8	38·6	36·0	34·0	33·8	34·3	34·0	34·0	33·5	32·7	31·7	30·4
20	31·0	32·0	31·9	32·1	32·0	32·3	31·7	30·9	30·6	30·9	34·3	35·9	38·2	38·4	37·6	36·2	35·8	34·8	34·6	34·8	34·1	33·6	33·7	31·2
21	30·7	36·7	32·3	31·7	31·0	31·7	30·7	28·9	28·0	29·7	33·1	37·5	40·6	41·5	40·0	38·2	36·6	35·3	34·1	34·2	34·0	22·6	28·1	31·1
22**	36·0	33·5	28·3	31·8	36·3	35·3	35·0	37·1	33·5	35·1	39·2	43·9	45·5	43·2	38·1	38·9	31·9	27·6	31·0	29·2	32·2	32·6	32·9	33·5
23	32·8	33·4	32·4	32·5	32·9	32·6	31·4	29·5	29·0	31·4	35·9	39·6	42·2	41·4	38·4	36·4	32·8	33·7	32·9	33·4	33·2	32·2	32 5	32·2
24	32·3	31·8	32·5	33·8	31·9	30·7	30·7	30·4	29·9	31·7	34·3	37·3	39·6	39·8	38·8	36·9	35·3	33·5	32·8	33·3	33·2	32·9	32·8	31·7
25	27·8	29·3	31·8	31·8	32·4	32·3	30·8	29·4	29·0	29·6	31·3	35·4	40·6	41·4	41·1	39·0	36·7	35·5	35·1	34·4	33·6	33·4	30·9	29·0
26	30·9	31·5	31·4	32·2	32·4	32·4	31·4	30·1	29·0	31·2	34·4	35·4	37·5	39·7	40·1	37·8	35·9	35·1	34·2	34·4	34·0	33·4	33·3	31·8
27	30·7	29·8	29·0	29·8	32·9	32·2	31·4	30·5	29·8	31·4	35·4	41·4	43·3	43·6	43·4	38·4	36·0	35·0	34·1	33·0	29·5	29·7	32·5	32·8
28	31·9	33·4	33·2	33·0	32·7	32·8	31·9	30·8	30·0	30·9	33·5	36·2	38·1	37·6	37·4	35·7	34·4	34·1	33·4	33·0	33·6	33·5	33·4	33·3
29*	32·9	32·7	32·9	32·5	31·8	31·9	31·0	29·5	28·8	29·9	32·4	34·9	36·2	36·4	35·3	34·3	33·3	33·3	33·1	32·6	32·7	33·1	33·1	33·0
30	32·8	32·3	32·6	31·4	30·6	31·0	30·4	28·6	27·6	29·4	31·6	33·8	37·0	38·4	38·5	37·5	35·2	34·5	33·6	32·1	32·7	32·5	32·1	32·3
Mean	32·2	33·0	31·9	31·4	32·1	31·9	31·6	30·8	30·8	32·8	35·9	38·4	40·4	40·3	38·8	36·3	34·0	33·2	33·2	32·7	32·4	32·4	32·5	32·3
Mean*	33·0	33·0	32·7	32·4	32·0	31·5	30·6	29·9	30·4	32·8	36·1	38·9	40·4	40·1	37·9	35·5	34·1	33·8	33·9	33·9	33·5	33·3	33·2	32·8
Mean**	34·0	34·4	30·0	27·9	30·5	32·0	35·8	34·9	34·0	36·0	38·5	40·5	41·4	41·4	39·8	37·3	32·5	29·5	31·6	31·2	29·6	32·1	32·4	31·9
October.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1*	32·4	32·4	32·3	32·1	31·6	31·4	30·7	29·3	28·2	29·3	31·3	34·7	37·4	38·4	37·4	36·1	34·7	34·4	34·3	34·2	32·6	32·4	32·3	33·4
2*	33·4	33·6	33·4	33·1	32·8	32·3	31·4	29·5	28·3	29·1	31·4	35·5	38·0	38·4	37·7	35·9	34·5	34·0	33·4	33·4	32·8	31·6	30·4	31·6
3	32·2	33·3	31·6	29·9	31·8	29·5	29·5	29·3	29·4	30·5	33·2	36·2	38·7	39·5	38·6	36·0	34·5	33·9	33·4	33·2	32·7	32·2	32·0	31·3
4	30·4	31·4	31·3	28·8	30·1	30·3	30·1	29·7	29·2	30·9	32·0	37·1	40·4	39·1	40·1	39·1	35·9	35·1	32·5	29·2	30·7	30·6	30·3	29·2
5	29·1	32·1	32·4	32·3	32·6	32·2	32·0	30·9	29·9	32·0	35·1	37·4	38·9	39·6	38·5	37·0	35·1	33·9	33·6	33·6	32·6	31·6	32·1	32·2
6	32·7	32·7	33·2	32·9	31·7	32·2	31·4	29·7	28·8	29·7	31·9	34·7	37·5	39·0	38·8	37·3	35·8	34·3	33·8	32·8	32·6	32·4	31·9	31·9
7**	32·6	32·7	32·9	32·5	34·2	32·9	32·7	30·7	29·4	29·7	33·7	40·6	43·7	43·7	44·2	39·6	36·1	34·6	25·1	25·9	19·9	19·4	35·6	30·0
8**	30·3	34·6	36·8	35·6	34·9	35·5	34·0	31·4	30·9	30·1	33·0	36·6	40·3	39·6	38·6	36·0	35·6	30·5	28·8	30·6	27·9	27·9	27·7	28·6
9	28·0	29·7	32·0	32·6	33·9	32·6	31·3	30·6	29·9	32·1	35·1	37·6	38·9	41·1	36·0	36·6	34·6	32·5	28·6	20·3	26·0	27·6	29·6	28·8
10	32·5	34·2	34·1	33·1	33·5	34·5	34·5	32·5	30·5	31·3	34·0	37·5	38·5	40·0	39·5	27·2	34·5	30·7	32·7	30·9	30·1	29·5	30·5	33·5
11	32·9	32·5	35·4	34·5	32·5	31·6	31·1	30·2	29·5	29·5	31·2	34·6	38·1	38·9	38·0	36·1	33·5	31·9	32·1	31·8	30·0	31·8	32·5	32·5
12	32·1	32·5	30·6	33·7	28·7	30·8	31·5	32·0	31·7	30·7	33·6	38·4	41·6	42·0	39·7	37·3	34·9	33·8	28·7	27·7	29·1	29·3	30·3	30·7
13	31·5	34·9	32·2	32·6	36·1	34·8	33·1	33·6	32·6	33·4	35·5	37·5	39·4	40·0	36·1	36·8	30·4	32·2	32·8	32·1	28·8	31·9	32·8	32·4
14	32·0	32·2	32·9	31·7	30·2	30·9	31·1	29·9	29·3	29·3	32·0	34·7	37·0	39·0	37·5	35·4	33·6	33·0	32·5	32·1	31·5	30·4	31·6	30·0
15*	31·3	31·6	31·7	31·6	31·7	31·2	31·8	30·2	30·1	31·5	34·1	37·4	38·4	38·7	37·6	35·8	34·3	33·3	32·3	32·2	32·2	29·9	31·3	32·3
16**	32·2	32·2	32·2	32·2	32·2	32·7	32·4	31·2	29·5	29·5	32·0	37·2	41·2	42·2	39·9	39·8	32·6	31·7	14·7	23·7	23·7	24·2	20·6	30·6
17**	30·2	36·2	41·3	34·8	36·3	35·0	32·6	32·3	31·6	30·9	32·0	33·2	34·2	35·5	35·3	34·2	33·6	34·9	35·2	23·9	25·5	25·3	25·7	26·6
18	28·2	26·8	27·1	28·8	31·5	32·7	31·2	30·2	29·4	31·3	34·2	37·2	39·1	39·1	37·0	35·8	36·1	30·1	32·1	32·1	31·1	29·7	23·1	20·7
19	19·0	21·5	27·0	25·7	31·8	37·0	36·8	34·3	34·4	33·7	34·5	35·6	36·3	37·8	35·1	34·1	32·8	27·8	28·8	26·4	29·8	28·6	29·8	31·8
20	32·5	32·7	32·7	32·4	32·7	34·0	32·7	30·2	30·2	30·3	33·2	36·6	39·0	37·2	38·5	33·6	34·0	30·0	28·8	29·5	30·9	31·6	31·1	31·2
21	31·1	33·0	31·1	31·4	32·5	32·7	33·4	32·4	30·4	31·0	33·5	36·8	37·9	37·4	35·6	34·0	33·4	32·4	31·6	30·2	27·4	27·4	29·5	30·9
22	31·7	31·8	32·1	33·1	32·1	31·5	31·1	30·1	29·6	30·3	32·4	36·5	39·1	40·9	39·7	37·0	35·1	34·3	33·9	33·3	32·2	27·6	30·3	29·7
23	32·6	30·1	31·3	31·1	31·8	31·6	31·6	30·1	29·1	30·1	32·3	35·3	38·2	37·6	37·2	36·2	35·2	34·2	33·0	33·2	30·6	30·0	29·2	24·7
24	25·3	28·7	29·9	31·0	32·2	31·7	31·3	30·6	29·8	31·0	34·6	38·7	38·4	37·7	37·1	35·8	35·4	34·4	32·8	25·7	29·3	30·1	30·4	31·5
25	28·4	28·8	30·4	30·4	32·4	31·0	30·9	30·7	29·7	29·9	32·3	35·3	36·7	37·3	36·3	35·1	34·0	33·3	32·6	32·2	28·9	30·9	31·2	31·3
26*	33·1	32·3	32·1	31·9	31·9	31·5	31·5	31·0	30·0	30·1	32·0	34·0	35·9	35·5	34·9	33·1	32·7	32·6	32·3	32·5	32·4	32·4	32·5	31·6
27*	31·6	30·7	30·7	31·5	31·9	31·7	31·1	30·3	29·2	29·3	31·9	34·6	36·0	36·2	36·3	34·5	33·2	33·0	30·9	32·8	32·7	32·4	32·4	32·4
28	32·3	32·1	32·3	32·3	32·1	31·8	31·6	31·4	30·2	29·8	31·6	33·9	35·1	35·4	35·1	33·7	33·2	33·1	32·9	33·2	33·0	31·6	31·0	30·6
29	25·0	19·6	28·7	30·9	28·3	29·0	31·3	31·8	31·6	31·3	32·3	34·3	36·6	37·0	36·3	34·4	33·4	32·6	32·0	32·1	32·5	32·1	31·5	30·3
30**	29·9	30·6	30·2	29·7	30·2	30·7	30·9	30·8	30·5	30·7	32·7	36·0	40·8	42·2	38·8	37·2	32·8	33·2	33·1	30·2	29·5	28·4	28·7	30·5
31	30·1	37·3	32·0	31·4	30·0	31·4	34·2	31·5	30·1	31·2	33·6	35·6	36·8	37·7	36·3	35·2	34·5	33·2	27·2	27·8	27·2	30·9	30·8	31·5
Mean	30·5	31·5	32·1	31·8	32·1	32·2	32·0	30·9	30·1	30·6	33·0	36·2	38·3	38·8	37·7	36·0	34·2	32·9	31·2	30·3	29·9	29·7	30·3	30·5
Mean*	32·4	32·1	32·0	32·0	32·0	31·6	31·3	30·1	29·2	29·9	32·1	35·2	37·1	37·4	36·8	35·1	33·9	33·5	32·6	33·0	32·5	31·7	31·8	32·3
Mean**	31·0	33·3	34·7	33·0	33·6	33·4	32·5	31·3	30·4	30·2	32·7	36·7	40·0	40·6	39·4	37·4	34·1	33·0	27·4	26·9	25·3	25·0	27·7	29·3

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE I.—HOURLY MEANS OF MAGNETIC DECLINATION AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
November.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	33·1	32·4	31·6	31·4	31·1	32·1	32·0	31·2	29·9	30·4	32·7	35·4	35·8	35·7	34·3	33·7	33·7	33·3	33·3	33·3	28·3	28·3	25·6	28·3	
2**	28·4	27·9	26·6	27·7	27·8	29·0	30·0	30·3	31·2	32·9	33·2	34·4	35·5	37·5	34·7	36·0	35·7	34·1	34·1	32·8	30·5	30·6	29·3	32·7	
3**	25·1	25·4	23·6	24·1	32·1	36·7	42·5	42·6	37·1	35·1	41·1	38·4	36·1	35·2	37·1	22·1	33·6	22·3	29·9	28·6	21·1	23·6	36·4	32·6	
4**	27·2	30·2	33·2	35·2	33·2	29·4	30·2	32·2	29·6	31·2	35·2	34·7	36·6	38·2	36·7	30·6	30·2	23·2	20·7	31·2	29·7	29·7	29·3	29·3	
5**	31·2	33·2	32·4	31·5	32·8	33·7	31·2	30·7	30·2	30·3	32·9	35·8	35·5	36·4	36·2	31·2	30·0	23·7	27·7	28·0	28·2	30·2	30·2	32·2	
6	32·3	30·3	32·3	32·3	31·1	31·6	33·3	33·3	32·7	31·7	32·7	35·3	35·4	36·2	33·9	33·6	28·9	28·4	31·9	30·9	29·2	26·4	28·4	30·1	
7	29·5	30·6	31·2	30·5	31·5	31·7	31·1	30·0	29·1	29·3	32·5	36·8	40·3	39·1	35·1	32·8	19·6	32·0	30·3	31·4	31·0	25·7	30·3	29·1	
8	29·7	29·6	30·4	33·4	32·7	33·3	33·4	34·7	33·4	34·4	34·1	35·1	35·7	35·7	34·7	33·9	33·1	32·7	32·7	32·7	32·2	32·1	31·7	31·3	
9	31·2	31·3	31·1	31·4	31·4	31·1	31·1	31·1	30·4	30·1	31·9	34·2	36·7	37·7	36·7	33·4	33·3	34·7	33·7	31·9	31·8	31·7	31·5	31·2	
10*	31·1	31·2	31·3	31·3	31·2	31·2	30·8	30·8	30·7	31·2	32·5	33·7	34·5	33·8	33·6	33·5	33·2	33·0	32·6	32·1	31·8	31·6	31·6	31·9	
11*	31·5	31·9	31·8	31·8	31·6	31·1	30·6	29·9	28·8	29·8	31·8	34·1	34·6	33·9	33·6	33·1	32·8	32·5	32·3	32·3	31·9	31·4	31·3	31·3	
12	31·5	31·7	31·8	32·0	32·3	29·7	29·3	29·3	29·1	29·5	31·5	33·2	34·2	33·7	32·7	32·2	32·1	31·6	31·2	31·4	31·4	30·5	26·1	29·6	
13	31·0	30·6	30·5	31·0	31·0	32·2	30·5	30·5	29·8	30·4	32·3	34·9	35·9	34·4	33·8	32·9	32·3	32·1	31·3	31·8	30·2	26·2	29·4	27·7	
14	29·7	30·7	31·2	30·7	31·0	31·0	30·5	30·1	29·5	29·8	30·9	32·6	33·4	34·3	35·1	35·4	34·5	32·8	31·6	31·6	31·5	29·3	27·1	25·5	
15	28·4	31·6	29·4	29·8	30·6	30·6	33·5	33·4	34·1	33·2	34·2	35·9	36·3	36·0	34·7	34·3	31·5	32·3	31·7	24·3	28·7	30·1	30·6	31·6	
16**	28·5	28·8	29·4	29·5	32·2	38·9	34·8	34·0	35·2	32·2	33·7	37·2	39·5	37·5	40·5	29·4	35·1	31·9	28·9	29·6	31·1	21·1	28·1	29·6	
17	31·0	31·8	31·7	31·8	31·0	30·5	30·0	29·5	29·0	30·0	31·0	32·5	34·0	34·0	33·0	32·6	32·2	31·8	31·3	31·0	30·3	30·1	30·0	30·3	
18*	31·0	31·3	31·5	31·6	31·6	31·0	30·6	29·8	28·8	29·0	31·4	34·0	35·0	34·8	34·0	32·0	32·5	32·0	31·6	31·4	31·0	30·2	29·5	31·0	
19	31·7	31·9	31·9	32·1	31·8	31·6	30·8	30·1	29·8	29·7	32·2	33·4	34·6	35·6	34·1	34·2	32·2	31·1	30·9	30·6	29·9	28·2	28·3	29·9	
20	31·0	31·0	30·8	30·5	30·9	30·5	29·9	29·8	29·7	29·8	31·1	32·7	35·1	34·1	34·3	32·9	34·8	35·4	36·1	29·5	26·9	28·6	28·8	29·6	
21	29·7	31·5	31·4	30·2	30·7	31·1	31·2	31·3	30·8	31·1	32·4	34·8	35·2	34·9	33·5	33·0	32·6	33·0	34·5	32·5	29·4	30·6	30·2	30·5	
22	30·7	31·0	31·5	31·4	31·2	30·7	30·5	30·3	29·9	30·6	32·2	34·0	34·5	34·0	33·4	33·8	35·5	34·8	34·9	31·9	30·9	30·6	30·0	29·1	
23	28·8	28·1	29·1	30·4	30·7	30·9	30·8	30·7	30·2	29·9	31·6	33·6	34·6	34·8	33·8	33·1	32·5	32·2	31·6	31·3	30·8	30·8	30·3	30·5	
24*	30·5	30·9	30·7	31·0	30·9	30·8	30·7	30·7	30·7	31·4	32·9	34·0	34·2	34·2	33·9	33·5	33·2	32·5	30·5	30·2	31·1	31·0	31·0	30·9	
25*	30·7	30·7	30·5	30·8	31·1	30·6	30·4	30·3	29·8	30·3	31·9	33·3	34·6	34·8	34·9	33·8	33·3	32·3	31·8	31·6	31·3	31·2	31·1	30·8	
26	30·3	30·7	30·9	30·7	31·0	31·3	31·3	31·3	30·8	30·8	31·8	32·3	33·5	35·2	34·8	34·1	33·3	32·8	32·7	30·9	30·8	30·3	29·6	28·5	
27	26·3	27·3	27·4	28·4	29·5	29·1	29·6	29·8	30·1	31·3	31·5	33·3	34·6	33·8	32·8	33·9	33·3	29·8	27·6	31·3	30·7	25·3	25·6	26·3	
28	29·3	28·3	29·6	29·8	31·3	30·7	30·6	30·8	30·6	31·2	33·3	33·9	33·3	33·8	33·6	32·6	32·4	32·9	32·3	27·3	29·3	29·4	29·6	30·3	
29	31·0	30·4	29·0	29·0	39·9	31·4	28·8	29·2	28·9	29·4	31·5	34·9	34·2	34·9	34·5	33·9	31·6	31·9	29·1	29·3	29·1	28·7	30·2	30·7	
30	31·1	30·2	30·8	30·8	30·8	29·5	29·2	29·4	28·8	29·6	31·1	32·8	34·3	33·8	33·8	32·5	32·0	29·8	30·8	30·3	29·2	27·5	27·7	29·3	
Mean	30·1	30·4	30·5	30·7	31·5	31·4	31·3	31·2	30·6	30·9	32·6	34·4	35·3	35·3	34·6	32·8	32·4	31·4	31·3	30·8	30·0	29·0	29·6	30·1	
Mean*	31·0	31·2	31·2	31·3	31·3	30·9	30·6	30·3	29·8	30·3	32·1	33·8	34·6	34·3	34·0	33·2	33·0	32·5	31·8	31·5	31·4	31·1	30·9	31·2	
Mean**	28·1	29·1	29·0	29·6	31·6	33·5	33·7	34·0	32·7	32·3	35·2	36·1	36·6	37·0	37·0	29·9	32·9	27·0	28·3	30·0	28·1	27·0	30·7	31·3	
December.	12° + Tabular Quantities.																								
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1*	30·3	31·1	31·7	31·3	30·9	30·7	30·1	29·7	29·3	29·8	31·6	33·3	34·4	33·9	33·1	32·6	31·6	30·5	29·9	30·6	30·5	30·4	30·3	30·7	
2*	31·5	31·5	31·5	31·5	31·2	30·7	30·2	29·8	29·8	31·0	32·5	34·4	35·5	35·1	34·5	34·1	33·0	31·5	30·5	29·1	30·1	30·1	30·1	30·4	
3	30·8	30·9	31·1	31·1	31·2	30·6	29·8	29·6	29·4	30·3	31·6	33·4	35·3	35·6	34·6	36·4	37·9	33·9	32·2	31·2	17·1	17·6	26·2	26·6	
4**	22·6	27·1	33·6	36·2	35·6	35·0	35·6	37·8	37·6	33·6	37·1	34·6	36·2	36·2	32·2	28·2	30·5	31·5	29·5	21·0	22·5	20·5	19·1	17·8	
5**	20·6	26·1	27·3	32·6	38·6	35·9	36·6	34·9	35·3	32·2	31·0	35·9	33·7	34·7	32·9	30·5	27·7	27·7	29·5	26·7	25·7	24·0	26·1	24·2	
6	22·0	25·8	25·8	30·1	36·1	37·2	36·6	35·8	34·6	34·2	34·1	35·8	35·3	36·6	34·6	30·6	33·2	30·0	29·3	31·3	27·6	28·9	29·2	29·6	
7	30·9	28·6	29·3	29·6	30·6	30·9	31·6	31·1	31·6	33·2	32·6	32·6	33·6	32·3	33·6	29·6	31·6	31·6	31·8	31·6	30·6	30·5	30·1	30·0	
8	30·0	30·8	30·5	34·5	30·0	34·0	33·5	31·2	29·9	31·4	31·8	32·9	33·6	34·0	33·9	33·4	31·1	26·9	31·7	30·9	30·4	28·8	25·1	28·4	
9	29·7	30·3	30·5	30·6	32·3	31·3	31·2	31·5	31·3	32·0	31·8	32·6	32·6	32·6	32·4	32·2	30·6	30·7	28·1	30·1	28·5	28·6	26·1	23·7	
10	27·0	27·3	28·3	29·4	30·7	30·8	30·9	30·4	29·7	30·6	31·2	32·0	34·2	33·8	33·8	32·3	31·8	31·8	30·7	31·2	30·3	29·4	26·7	28·3	
11	29·0	31·2	30·3	29·2	29·7	34·7	32·1	31·7	31·5	31·9	32·9	33·7	35·7	34·7	34·1	32·0	33·0	30·4	30·7	29·2	28·2	17·3	22·0	26·0	
12	29·2	24·0	27·3	26·5	32·6	29·9	31·4	30·6	29·6	30·2	31·9	32·1	34·6	33·8	33·1	31·6	30·4	30·6	30·3	27·2	29·6	29·6	29·4		
13	30·2	30·1	28·7	28·9	29·4	31·1	30·2	31·4	31·7	33·0	34·1	34·8	34·7	34·2	32·8	31·4	30·8	30·7	30·7	30·6	30·4	30·2	30·4	30·5	
14	30·8	30·9	30·8	30·8	30·8	30·4	30·4	29·5	28·9	29·9	31·7	32·9	33·5	33·6	32·5	32·0	31·8	31·8	28·1	31·1	31·1	30·8	30·8	31·1	
15	29·8	28·7	30·2	31·2	31·2	30·2	30·3	30·3	30·3	31·3	32·8	33·4	34·6	34·4	33·8	33·6	32·4	31·0	31·1	30·8	30·4	30·7	28·9	30·0	
16**	31·1	31·3	31·5	31·9	31·3	30·4	30·3	29·8	29·7	32·3	34·3	36·2	37·8	38·2	37·9	34·2	37·4	36·5	29·1	25·6	24·4	29·0	29·4	29·2	
17**	29·9	29·9	31·2	31·5	32·2	32·0	31·8	31·1	31·0	32·0	31·7	32·5	32·9	33·3	32·6	32·5	32·5	32·5	30·5	31·0	30·4	26·4	22·8	25·4	
18	27·6	30·0	28·8	30·1	34·6	29·6	29·2	29·7	30·5	30·8	32·2	32·2	34·1	33·8	33·1	33·7	33·4	33·2	32·0	31·0	30·5	29·4	27·2	27·7	
19*	30·8	30·4	29·9	30·4	30·8	30·7	30·1	29·9	30·3	30·7	31·4	32·8	33·4	32·8	31·7	31·7	31·7	31·7	31·3	30·7	30·3	29·7	29·7	29·7	
20*	29·8	28·4	30·3	30·6	30·7	30·7	30·5	29·7	28·9	28·5	29·9	31·5	34·4	34·2	32·9	32·4	32·2	31·7	31·5	30·7	30·4	29·7	29·7	29·7	
21*	29·9	30·3	30·4	30·4	30·4	30·5	30·4	30·1	29·8	30·3	31·1	32·3	33·8	34·1	33·0	32·3	31·8	31·6	31·2	30·8	30·2	29·8	29·1	28·7	
22**	28·8	29·9	28·2	27·7	28·2	26·9	29·0	28·4	29·6	29·8	31·8	34·3	37·3	38·7	37·8	33·8	34·3	38·5	32·2	30·2	26·6	22·6	23·3	22·6	
23	24·1	26·4	27·4	28·9	27·0	28·4	29·4	29·2	28·4	29·2	30·6	32·1	33·5	34·0	33·8	32·9	33·0	30·0	31·9	30·1	29·1	29·2	29·5	29·5	
24	29·6	29·1	29·8	30·6	30·0	29·7	29·7	29·6	29·6	30·5	31·1	32·6	34·2	34·5	33·0	33·1	33·1	32·1	31·1	30·9	30·6	26·6	24·1	25·9	
25	30·2	29·7	30·0	28·7	29·1	29·5	29·5	29·2	29·1	30·3	31·2	31·9	33·2	33·5	33·4	31·8	31·5	32·3	30·8	31·3	29·1	28·8	28·6	28·4	
26	29·9	29·9	29·5	29·7	30·0	29·8	29·9	29·4	29·1	30·2	31·9	32·6	33·5	34·4	33·3	32·2	32·0	31·9	31·8	29·0	28·3	29·8	29·9	30·0	
27	28·9	30·3	30·9	30·5	30·8	30·9	30·2	29·8	28·9	29·9	31·3	32·1	33·0	34·4	34·0	33·1	32·8	32·7	31·9	30·9	29·7	29·8	29·9	30·2	
28	30·4	30·1	30·5	30·9	30·7	30·8	30·3	29·7	28·5	28·8	30·4	32·1	32·7	33·4	32·9	32·9	33·2	33·9	31·7	31·8	30·4	25·6	27·2	28·4	
29	29·0	29·0	29·8	30·0	30·5	30·3	30·0	29·8	29·0	29·7	31·0	31·5	32·5	32·5	32·5	32·4	32·5	32·0	31·6	30·6	31·2	29·2	28·6	28·8	
30	29·1	29·2	27·2	29·8	29·8	30·0	31·4	30·6	29·1	29·8	31·0	31·9	32·8	33·5	34·6	33·4	32·1	31·2	30·5	30·0	29·4	29·1	29·1	29·6	
31	29·5	29·5	28·6	30·0	30·1	30·1	29·1	28·5	27·6	29·3	30·9	33·1	34·6	35·8	35·1	33·1	32·1	32·1	29·1	30·1	29·5	29·4	26·7	26·7	
Mean	28·8	29·3	29·7	30·5	31·2	31·1	31·0	30·6	30·3	30·9	32·0	33·1	34·2	34·4	33·7	32·5	32·4	31·8	30·7	29·9	28·8	27·8	27·6	28·0	
Mean*	30·5	30·3	30·8	30·8	30·8	30·7	30·3	29·8	29·6	30·1	31·3	32·9	34·3	34·0	33·0	32·6	32·1	31·4	30·9	30·4	30·3	29·9	29·8	29·8	
Mean**	26·6	28·9	30·4	32·0	33·2	32·0	32·7	32·4	32·6	32·0	33·2	34·7	35·6	36·2	34·7	31·8	32·5	33·3	30·2	26·9	25·9	24·5	24·1	23·8	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE II.—HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC FORCE AT ABINGER.

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
January.	18000 γ + Tabular Quantities (in γ).																								
1*	566	566	568	570	569	569	569	566	561	558	559	558	557	562	567	570	576	577	578	577	577	574	571	568	
2	569	570	572	575	578	580	580	580	576	572	569	566	562	567	569	571	567	569	574	579	578	577	576	573	
3	573	573	574	574	577	577	573	571	567	559	557	557	560	565	576	576	580	579	572	572	567	545	547	553	
4	559	558	571	556	553	553	558	573	561	554	562	554	554	558	565	569	569	573	576	569	569	569	568	567	
5**	566	567	569	579	584	585	571	571	565	558	556	546	555	568	571	557	553	547	521	525	527	504	538	541	
6	561	547	553	553	555	553	548	551	554	550	547	541	549	548	548	545	546	539	538	559	564	564	563	561	
7	561	562	563	564	566	565	565	564	559	557	553	550	545	550	553	554	556	560	562	563	564	564	564	565	
8**	565	566	568	571	570	571	571	573	567	558	551	547	548	540	538	535	548	559	563	564	563	565	543	534	
9**	514	517	531	549	545	540	545	545	545	543	541	535	549	547	535	543	534	532	550	541	536	537	556	562	
10**	545	538	540	543	546	545	555	551	543	539	532	534	538	541	545	535	527	547	547	545	548	571	558	552	
11	563	568	550	547	571	569	560	551	537	537	540	539	545	554	558	561	561	562	562	562	561	561	563	562	
12	561	558	561	563	566	567	569	568	558	548	545	546	553	557	560	559	561	564	564	566	565	564	565	566	
13	566	568	569	571	569	566	568	566	556	545	539	540	544	551	555	557	563	566	567	566	566	568	559	558	
14**	564	569	562	566	569	571	574	568	566	551	538	541	552	552	535	510	548	561	558	552	557	557	553	558	
15	551	558	561	562	565	569	570	569	561	552	548	544	546	546	557	560	552	557	558	561	560	562	564	564	
16	565	566	567	569	572	572	574	574	569	559	553	548	547	547	553	554	553	557	566	568	561	558	561	573	
17*	564	564	566	568	571	571	571	574	574	565	560	551	551	553	557	562	564	568	576	574	573	571	570	569	
18*	569	569	570	572	574	579	579	576	571	562	551	548	554	561	560	557	561	567	573	574	572	571	571	571	
19*	571	570	570	571	573	576	577	576	572	570	565	560	558	561	564	563	562	564	570	575	576	571	570	570	
20	575	574	575	576	578	582	582	581	573	565	557	556	563	573	577	582	581	583	582	585	582	561	556	556	
21	561	564	564	567	570	569	572	570	568	560	560	554	564	559	559	566	567	563	556	566	570	570	571	566	
22	566	576	569	566	564	565	565	567	561	553	545	550	553	558	566	555	558	567	570	570	564	554	560	556	
23*	560	560	560	562	564	566	566	564	562	553	551	549	553	560	563	569	571	569	561	569	571	571	569	567	
24	567	571	573	573	573	573	575	573	562	553	546	541	547	557	561	568	569	571	574	575	567	570	563	567	
25	571	571	572	573	574	574	574	574	570	560	555	557	565	568	566	569	566	562	561	567	571	571	571	572	
26	572	573	574	575	576	575	574	574	571	564	557	554	559	564	567	566	561	566	569	564	557	550	560	563	
27	563	564	567	569	570	572	574	571	568	561	559	556	558	569	571	570	570	570	574	576	574	573	573	574	
28	574	574	574	575	577	578	577	577	571	560	551	551	561	564	571	569	559	564	561	566	569	570	574	571	
29	572	575	576	577	576	575	575	571	565	561	561	548	550	558	566	571	569	570	571	541	539	552	556	551	
30	555	564	562	565	571	570	574	566	558	551	546	548	556	566	566	562	561	566	569	570	565	569	571	573	
31	568	564	565	573	573	574	574	571	558	551	545	548	556	562	558	569	568	570	569	569	571	571	567	566	
Mean	563	564	565	567	569	569	570	569	563	556	552	549	553	558	560	560	561	564	564	565	564	562	563	563	
Mean*	566	566	567	569	570	572	572	571	568	562	557	553	555	559	562	564	567	569	572	574	574	572	570	569	
Mean**	551	551	554	562	563	562	563	562	557	550	544	541	548	550	545	536	542	549	548	545	546	547	550	549	
February.	18000 γ + Tabular Quantities (in γ).																								
1	567	574	570	569	570	571	575	571	570	561	549	553	558	563	571	577	572	571	569	570	567	566	567	574	
2	571	571	572	572	572	571	575	571	562	554	553	553	549	553	560	565	570	574	574	575	577	570	574	570	
3*	569	570	569	569	575	574	571	569	556	545	538	539	549	558	564	569	571	571	571	573	575	575	575	573	
4*	573	573	576	576	577	577	578	577	566	552	546	544	548	553	561	570	575	575	576	577	577	576	575	576	
5*	576	574	574	574	577	579	579	578	569	561	552	535	539	558	566	574	576	578	577	571	573	576	578	579	
6	578	579	581	582	582	578	581	579	570	561	558	548	548	551	551	546	528	549	543	554	565	566	553	554	
7	548	567	564	558	558	564	570	567	558	547	535	526	535	543	558	560	566	567	565	567	568	576	572	567	
8	567	570	566	569	568	571	575	568	564	558	553	549	548	557	560	564	559	561	557	536	527	551	568	566	
9**	558	558	558	564	564	565	564	568	551	535	538	525	533	531	543	545	566	549	562	549	564	564	569	566	
10	566	579	566	567	564	566	569	567	555	537	528	514	523	536	548	540	551	557	551	564	564	564	563	564	
11	564	567	566	566	571	570	570	569	558	539	532	527	532	534	546	547	548	558	567	566	566	566	567	577	
12	568	561	562	563	565	565	566	561	551	543	540	538	546	551	557	553	559	560	563	566	566	564	567	569	
13	574	575	572	571	575	577	577	567	558	557	546	543	545	551	555	558	559	566	566	571	574	573	572	571	
14*	571	571	574	575	576	576	574	575	565	552	548	551	550	554	558	558	557	565	569	571	570	572	574	573	
15*	574	573	574	575	578	579	582	580	572	563	554	555	560	563	558	563	566	567	571	572	575	572	572	570	
16	571	571	573	576	576	579	581	581	577	572	565	565	573	573	571	571	561	550	556	573	580	585	569	594	
17**	584	575	583	576	592	592	559	573	569	534	510	529	512	500	518	493	489	501	493	475	503	466	500	514	
18**	500	513	537	563	527	509	517	528	515	501	513	518	517	520	524	524	527	524	533	536	529	530	531	540	
19	549	545	544	528	543	555	557	556	541	530	524	504	504	515	533	517	513	543	537	533	531	535	545	550	
20	556	548	543	543	559	553	547	545	538	530	524	525	532	535	540	547	550	551	552	550	545	553	558	553	
21	552	552	552	568	569	568	568	552	543	533	529	526	529	537	549	547	550	561	558	558	551	545	554	578	
22	563	555	553	549	556	558	561	559	555	553	542	522	538	556	553	529	521	541	548	549	556	540	541	549	
23	550	542	547	556	543	551	543	559	560	557	553	548	550	545	549	558	556	559	557	564	566	561	561	561	
24	582	566	561	554	556	561	564	568	553	553	540	543	550	560	558	554	550	553	556	562	566	566	563	562	
25	—	—	—	—	—	—	—	—	—	—	552	555	555	558	563	561	563	561	547	529	527	529	559	542	
26	545	553	551	555	557	559	560	560	553	546	543	545	550	558	560	563	555	558	562	579	574	553	550	529	
27**	534	544	545	541	534	553	578	568	541	535	535	535	534	535	543	558	542	534	532	472	493	441	459	420	
28**	407	448	472	520	527	491	493	494	484	497	502	489	468	469	507	513	516	495	527	540	542	544	540	540	
Mean	556	558	559	562	563	563	564	563	554	545	539	535	538	543	550	551	550	553	555	555	557	554	556	557	
Mean*	573	572	573	574	577	577	577	576	566	555	548	545	549	557	561	567	569	571	573	573	574	574	575	574	
Mean**	517	528	539	553	549	542	542	546	532	520	520	519	513	511	527	527	528	521	529	514	526	509	520	516	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE II.—HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
March.	18000 γ + Tabular Quantities (in γ).																								
1	541	537	533	536	538	543	545	542	530	511	516	513	514	527	538	530	536	537	545	548	546	544	538	539	
2	546	549	549	548	544	549	551	551	541	526	518	515	523	532	529	539	542	549	551	549	553	554	554	554	
3	554	552	553	554	554	552	558	559	555	549	546	539	539	537	544	554	531	533	538	563	562	557	555	560	
4*	550	553	557	552	554	555	557	558	552	552	551	551	551	551	555	550	557	558	559	562	563	565	564	564	
5	563	562	562	564	572	579	569	572	565	556	548	553	542	547	562	555	554	560	559	557	560	561	560	559	
6*	559	559	559	556	556	555	554	554	552	549	542	546	549	553	553	553	561	559	565	564	553	566	562	567	
7	568	563	564	565	567	567	561	563	549	538	539	543	549	552	546	551	551	550	561	546	542	538	551	555	
8**	554	550	560	561	565	571	565	552	547	552	547	538	545	537	544	533	549	548	557	557	556	558	559	559	
9	556	557	561	561	560	553	553	547	551	538	534	536	538	548	556	555	550	561	563	563	562	573	571	568	
10*	566	570	570	566	572	567	567	563	557	547	541	543	547	561	566	560	550	557	564	565	567	568	570	570	
11**	565	563	567	566	559	574	567	562	556	543	534	527	542	549	589	572	554	535	561	572	554	546	553	555	
12	569	553	542	539	538	468	476	408	390	415	408	420	412	484	499	536	520	507	486	468	516	465	464	471	
13	475	517	503	515	517	514	520	508	500	504	507	499	499	503	518	519	530	535	539	541	545	544	559	554	
14	538	536	533	532	532	539	540	540	535	529	518	518	517	515	529	523	528	533	537	538	536	543	560	549	
15**	551	547	547	547	549	552	552	550	542	540	536	543	533	543	551	512	507	510	507	512	513	525	522	559	
16**	533	528	517	538	543	524	523	507	497	494	499	481	493	510	523	523	514	501	526	529	539	543	537	562	
17	537	530	529	533	519	544	531	536	520	520	513	513	513	517	522	519	527	527	547	558	563	545	543	544	
18	553	546	547	546	543	548	547	545	537	525	514	516	524	535	541	547	534	542	545	540	546	551	552	554	
19	552	549	553	547	553	553	553	550	545	534	530	531	537	537	547	548	544	544	548	551	553	554	553	556	
20	556	553	553	560	566	556	554	551	548	550	547	548	540	547	555	542	545	557	552	542	547	557	568	579	
21**	555	568	560	557	551	545	505	516	524	526	522	506	492	509	529	526	533	555	540	537	527	524	547	569	
22	558	543	541	539	534	547	558	527	528	516	521	531	537	514	524	540	532	525	552	557	556	554	555	551	
23	551	552	550	550	553	550	547	539	532	524	523	526	541	541	532	539	550	549	552	559	555	575	572	561	
24	557	554	562	567	548	554	552	545	541	525	521	514	524	537	550	563	565	551	552	558	576	568	557	557	
25	556	559	554	555	553	558	556	552	530	527	522	525	534	542	541	547	553	552	559	557	562	560	566	575	
26	564	562	560	560	562	564	571	561	547	533	528	532	542	548	553	554	559	567	567	572	572	567	584	577	
27	550	560	554	556	552	557	559	551	539	536	533	541	535	548	559	562	569	577	567	556	564	578	567	567	
28	569	582	573	569	562	566	564	560	549	541	538	538	549	559	567	567	567	558	560	567	565	567	596	556	
29	565	553	554	567	558	564	553	552	548	536	532	530	533	542	548	555	549	563	564	564	568	561	566	568	
30*	565	570	563	557	560	562	557	555	547	537	529	524	535	548	557	559	554	555	566	569	568	569	566	565	
31*	570	572	567	566	562	565	562	562	556	541	532	532	541	550	558	559	567	567	569	571	571	574	583	580	
Mean	553	553	552	553	552	552	549	543	536	530	526	525	528	536	545	545	545	546	550	551	554	553	557	558	
Mean*	562	565	563	559	561	561	559	558	553	545	539	539	545	553	558	556	558	559	565	566	564	568	569	569	
Mean**	552	551	550	554	553	553	542	537	533	531	528	519	521	530	547	533	531	530	538	541	538	539	544	561	
April.	18000 γ + Tabular Quantities (in γ).																								
1	588	575	579	573	574	569	574	568	549	547	544	549	552	557	560	560	562	564	571	563	573	578	576	595	
2	573	563	563	568	570	571	569	565	557	544	534	536	548	561	565	563	573	573	573	575	573	574	568	569	
3	569	575	565	568	566	568	566	552	549	544	542	542	544	544	550	553	557	560	567	563	569	571	581	579	
4**	578	567	567	574	575	584	586	581	562	557	552	566	547	553	543	552	549	552	573	581	581	579	577	578	
5	575	575	573	575	575	573	568	560	549	542	536	531	539	543	549	560	555	564	558	563	564	565	568	587	
6	575	560	557	557	558	560	560	556	547	537	529	533	540	553	560	566	564	566	570	570	573	572	574	573	
7	568	566	565	565	567	569	566	559	549	536	532	529	536	544	555	560	566	565	570	571	575	578	578	572	
8	573	574	571	568	567	562	561	558	552	536	536	536	528	545	555	560	561	563	566	560	573	567	569	571	
9*	568	578	576	566	570	574	570	565	555	544	538	538	547	552	560	565	565	567	568	571	570	570	570	570	
10	570	570	571	573	573	575	576	572	560	548	539	548	543	541	548	557	564	571	573	570	568	570	571	574	
11	573	597	583	575	573	573	572	566	554	542	535	539	548	560	564	573	575	572	574	581	578	581	579	577	
12	576	575	572	570	570	574	572	566	551	532	526	530	543	557	568	571	571	568	569	573	579	577	577	564	
13	562	567	572	574	578	583	581	574	562	549	531	525	533	543	555	569	571	575	564	570	571	569	568	570	
14*	567	567	570	572	575	575	576	573	563	550	542	538	547	556	562	564	569	573	570	572	578	582	582	581	
15	575	575	575	576	578	578	576	571	561	545	533	532	541	555	568	577	594	596	588	590	584	578	571	574	
16**	584	591	564	568	609	565	547	523	525	519	506	502	501	510	550	548	560	549	550	556	556	551	572	578	
17**	565	562	531	542	546	542	544	545	532	508	507	522	529	545	557	556	561	562	568	573	569	565	578	573	
18	557	551	553	555	549	555	557	561	546	534	534	533	538	547	555	558	566	561	566	567	563	564	568	582	
19	567	555	559	556	563	561	558	552	549	547	541	542	539	543	550	554	559	561	561	560	563	564	564	568	
20*	563	556	557	556	557	560	563	561	556	541	535	543	556	567	570	567	561	561	561	563	564	565	564	569	
21	567	564	569	580	583	561	570	560	550	541	533	535	537	541	549	552	559	563	567	564	561	574	565	563	
22	557	559	564	557	559	553	552	550	545	542	543	546	546	551	554	560	569	569	567	566	564	564	563	565	
23*	566	565	563	562	559	556	553	551	548	544	544	543	550	555	561	568	573	576	572	570	571	572	569	569	
24*	572	572	570	569	565	568	564	559	552	545	538	539	543	556	563	574	580	577	579	577	568	570	571	575	
25	581	570	568	569	570	574	570	563	558	550	545	543	555	568	570	577	578	575	575	577	570	564	570	588	
26	576	569	570	570	570	574	569	560	549	547	545	549	561	568	575	572	578	581	580	576	580	571	575	568	
27	563	570	578	568	565	566	570	568	560	555	547	545	538	548	559	570	577	578	583	586	586	584	570	572	
28	578	588	583	569	567	574	579	568	555	543	542	543	549	556	552	560	583	573	575	583	584	581	575	572	
29**	573	575	573	578	570	568	563	558	549	545	547	543	560	549	560	585	582	586	577	583	573	570	568	564	
30**	560	562	559	565	559	562	554	556	553	547	545	549	552	558	571	581	553	570	568	580	579	582	582	584	
Mean	571	570	567	567	569	568	566	561	552	542	537	538	543	551	559	564	568	569	570	572	572	572	572	574	
Mean*	567	568	567	565	565	567	565	562	555	545	539	540	549	557	563	568	570	571	570	571	570	572	571	573	
Mean**	572	571	559	565	572	564	559	553	544	535	531	536	538	543	556	564	561	564	567	575	572	569	575	575	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE II.—HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
May.	18000 γ + Tabular Quantities (in γ).																								
1	596	581	572	574	572	575	574	575	568	559	552	543	547	550	558	569	570	570	575	579	577	577	579	576
2	571	569	564	571	564	562	572	569	564	560	544	561	557	562	562	565	570	582	573	578	578	577	575	577
3	581	582	569	575	565	577	572	557	549	551	552	560	542	569	575	575	573	580	583	579	577	576	577	587
4	575	566	566	569	572	568	562	557	544	534	547	550	559	558	559	562	569	576	577	576	576	576	578	582
5*	582	568	564	564	565	566	564	553	551	545	547	543	545	547	553	557	562	569	572	570	572	573	573	573
6	572	571	571	570	571	570	567	558	549	544	544	547	550	555	563	570	575	579	580	578	580	578	578	577
7	575	573	570	568	570	570	568	560	555	548	547	538	535	548	560	575	573	581	586	579	579	576	568	569
8	569	569	568	568	565	564	558	554	553	555	556	562	557	555	562	563	570	575	580	583	581	579	572	570
9	571	570	569	572	568	560	557	553	548	547	556	556	561	552	562	562	574	580	588	580	578	576	576	575
10*	573	574	574	574	572	567	562	558	556	555	553	549	554	557	564	572	581	588	590	586	581	579	579	578
11	577	577	580	577	577	574	569	565	563	557	551	545	552	564	572	580	567	585	590	580	582	582	585	589
12	582	576	564	567	574	595	583	578	566	546	538	524	538	542	552	563	581	580	573	577	583	574	567	569
13**	572	572	580	605	598	583	587	570	558	561	528	544	543	538	561	563	568	563	582	565	565	569	571	562
14**	555	557	558	558	561	558	557	552	551	541	537	539	548	540	554	581	572	574	569	576	579	596	565	559
15**	559	562	567	559	564	560	549	534	542	541	518	541	559	573	560	560	580	589	576	576	591	588	560	567
16**	570	568	575	553	571	560	553	548	542	542	545	531	537	555	560	560	588	584	579	576	588	566	566	575
17	566	561	556	560	573	570	562	562	559	550	541	534	527	550	549	558	576	586	571	576	569	568	566	565
18*	566	562	560	561	564	560	553	546	543	542	541	542	547	547	556	559	565	569	577	577	577	580	568	565
19	569	570	567	568	574	566	558	553	556	560	560	556	551	551	555	558	565	568	572	582	579	571	558	564
20	567	572	572	570	565	565	560	557	552	549	553	557	556	558	574	561	580	584	590	586	585	584	583	593
21*	586	579	573	573	572	569	561	556	555	555	552	546	548	552	557	568	580	587	591	585	584	584	581	583
22*	584	586	579	577	574	574	569	559	548	546	(552)	559	564	561	562	567	572	583	582	580	575	574	577	575
23**	575	583	581	575	581	580	546	539	523	521	535	545	548	549	550	553	551	565	571	571	565	560	558	557
24	563	563	566	563	560	557	551	547	541	542	537	532	540	545	557	558	571	574	582	580	571	570	561	567
25	577	578	582	562	567	556	539	530	529	529	533	535	540	549	564	564	556	577	586	576	572	568	568	572
26	572	567	567	564	564	561	554	550	546	543	546	550	551	551	555	559	559	568	587	578	574	572	571	572
27	588	571	560	564	568	562	561	558	552	543	539	535	528	531	555	571	578	589	595	596	587	586	584	582
28	584	587	587	584	588	589	587	580	558	554	551	555	532	538	561	580	596	578	590	599	587	585	586	586
29	589	581	584	582	587	578	578	572	566	554	553	555	550	556	563	569	564	587	594	591	591	588	585	583
30	579	576	575	577	578	579	573	569	560	548	559	565	564	561	571	556	579	592	592	594	590	590	578	574
31	572	573	574	575	574	569	561	553	539	534	552	562	553	556	574	576	577	583	590	584	586	579	581	579
Mean	575	572	571	570	572	569	563	557	551	547	546	547	548	552	561	566	572	579	582	580	579	578	573	574
Mean*	578	574	570	570	569	567	562	554	551	549	549	548	552	553	558	565	572	579	582	580	578	578	576	575
Mean**	566	568	572	570	575	568	558	549	543	541	533	540	547	551	557	563	572	575	575	573	578	576	564	564
June.	18000 γ + Tabular Quantities (in γ).																								
1	579	578	579	576	574	572	568	560	553	557	560	559	548	548	564	575	579	587	585	592	590	582	577	582
2	574	572	573	569	574	549	559	561	559	555	555	553	549	552	562	581	573	581	579	578	580	574	572	573
3	572	571	572	571	573	569	564	556	553	547	555	565	566	562	560	574	572	586	590	587	587	578	575	569
4*	569	568	566	571	572	569	561	553	547	543	542	548	556	568	585	596	589	585	580	577	575	573	571	570
5*	570	569	569	570	572	568	561	553	546	546	550	552	557	556	566	575	574	578	577	577	578	578	580	579
6	579	580	579	576	578	575	572	565	558	554	557	562	559	560	569	580	588	596	596	589	583	585	586	586
7	587	575	582	573	570	570	567	552	542	539	541	552	557	555	562	575	575	579	586	580	574	575	575	575
8	571	572	573	572	580	578	572	562	552	543	545	548	551	571	576	582	606	590	580	588	584	582	588	567
9	560	562	565	567	568	564	558	566	565	558	555	564	565	570	564	583	576	588	599	592	591	586	579	574
10**	580	575	575	576	572	563	530	557	534	542	539	528	530	550	547	562	576	601	599	585	589	566	570	573
11**	569	566	550	561	549	561	543	530	530	527	528	510	518	540	568	591	623	609	597	586	590	565	562	557
12	564	559	567	562	559	553	548	546	538	534	532	532	539	562	573	589	594	598	597	597	569	568	563	563
13	555	561	563	559	561	564	567	564	561	550	544	538	547	542	561	583	584	578	583	579	574	573	571	568
14*	567	567	567	567	568	568	562	554	554	555	553	548	555	556	553	561	566	571	572	578	577	575	574	571
15	569	568	568	568	570	568	561	558	550	543	542	548	544	541	552	567	580	574	581	582	577	570	569	565
16	566	564	566	577	580	574	573	559	550	539	537	536	552	555	558	561	561	577	580	581	581	576	573	577
17	574	567	568	567	566	565	563	563	562	557	547	548	552	560	565	562	571	567	573	579	591	584	581	578
18*	574	580	576	572	576	577	572	565	561	559	557	558	554	552	565	570	570	574	578	580	581	581	578	576
19	573	570	569	570	568	570	566	557	548	545	549	560	565	565	563	561	567	579	589	594	593	593	584	582
20	579	583	573	572	572	575	573	561	549	539	539	546	549	557	564	566	580	576	582	583	573	577	576	575
21	575	575	573	572	576	574	567	560	556	549	551	554	559	567	585	596	588	607	589	587	584	578	575	574
22**	579	576	575	575	567	561	548	536	561	572	578	564	577	558	566	578	571	578	591	618	601	585	590	589
23**	591	580	578	578	577	577	570	546	546	546	544	543	545	555	548	570	571	580	575	587	592	591	604	573
24	575	570	566	568	555	569	567	552	545	542	547	554	546	570	576	565	563	578	579	568	571	573	572	572
25	572	578	570	567	559	558	562	551	551	544	546	546	543	548	562	575	578	582	583	575	572	572	572	571
26*	570	572	568	568	570	567	566	562	551	543	538	537	542	551	568	578	579	578	574	572	570	570	570	568
27	569	568	570	575	580	582	575	562	551	544	544	556	572	588	602	592	584	580	574	576	578	574	569	572
28	571	569	576	574	576	581	573	559	546	529	523	527	541	568	585	581	579	582	570	561	554	559	561	562
29	559	559	561	563	565	559	550	545	539	536	536	545	553	554	566	575	578	576	576	573	577	578	572	570
30**	573	573	578	582	578	573	567	554	548	544	544	555	562	553	542	552	558	580	588	587	588	570	572	561
Mean	572	571	571	571	570	568	563	556	550	546	546	548	552	558	566	575	578	583	583	583	581	576	575	572
Mean*	570	571	569	570	572	570	564	557	552	549	548	549	553	557	567	576	576	577	576	577	576	575	575	573
Mean**	578	574	571	574	569	567	552	545	544	546	547	540	546	551	554	571	580	590	590	593	592	575	580	571

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE II.—HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
July.	18000 γ + Tabular Quantities (in γ).																								
1	571	565	550	555	571	563	539	523	521	523	522	528	533	549	568	567	567	562	565	579	579	588	585	580	
2	575	578	576	581	580	572	562	554	549	544	546	552	554	547	550	559	564	576	582	589	587	583	580	572	
3	570	571	571	569	571	570	571	566	555	549	546	549	554	559	566	576	591	592	590	580	581	585	585	586	
4	587	586	578	574	568	563	560	557	565	564	564	564	565	555	563	562	576	585	587	580	578	570	570	567	
5**	567	567	567	567	569	566	563	559	553	552	544	550	563	571	577	607	611	563	588	599	583	571	554	558	
6**	567	568	572	575	574	549	559	559	533	526	542	548	543	541	537	559	572	568	583	582	576	572	568	577	
7	567	561	558	557	552	552	543	528	507	506	502	515	525	535	547	555	561	579	598	591	582	568	568	567	
8	567	568	565	567	566	562	556	545	525	503	505	522	539	550	568	572	568	578	582	579	571	568	566	566	
9*	568	570	569	570	570	562	554	548	539	528	524	533	544	557	564	569	572	571	575	582	574	569	573	575	
10**	571	571	570	569	575	577	551	524	515	497	503	535	523	556	605	559	665	567	608	600	582	587	569	528	
11	553	566	556	560	579	562	547	546	540	530	509	517	526	522	537	553	549	566	569	567	558	556	560	551	
12	560	548	551	554	551	549	549	539	525	512	508	519	527	536	554	566	571	565	569	573	566	564	562	554	
13*	553	553	555	556	557	556	550	543	538	536	539	537	537	532	542	553	565	569	577	575	576	566	564	562	
14	554	555	558	561	562	560	558	552	550	548	538	537	540	549	553	556	576	611	605	581	585	558	548	539	
15**	527	570	566	577	568	565	518	537	525	509	501	505	512	516	529	549	557	570	579	584	560	546	537	535	
16**	543	543	542	544	545	543	525	515	502	504	513	507	507	518	533	562	556	558	557	554	556	553	552	550	
17	548	553	546	546	543	541	534	524	519	516	511	509	497	508	552	545	543	546	552	557	559	559	563	561	
18	551	549	548	549	549	550	548	542	533	524	520	511	529	546	553	565	574	568	561	557	560	560	562	568	
19*	563	553	553	555	557	558	549	540	537	532	531	533	544	550	555	563	566	563	566	563	563	566	569	573	
20	571	568	564	563	564	562	558	548	535	522	538	559	567	576	568	559	584	583	576	574	576	563	570	578	
21	592	573	568	568	566	563	556	554	547	543	544	553	545	552	564	557	565	569	565	566	566	564	571	571	
22	569	567	561	560	556	556	549	541	530	509	530	532	545	553	558	565	569	569	566	576	570	570	567	571	
23	566	566	568	566	563	563	559	550	537	533	532	544	551	555	563	572	566	571	570	574	570	569	570	571	
24	570	563	563	563	559	555	554	549	538	534	535	540	545	561	566	567	583	605	598	570	571	571	569	571	
25	559	559	563	561	561	556	550	546	535	528	527	528	530	533	546	553	561	569	569	569	569	566	568	567	
26	556	558	559	562	563	563	559	547	535	533	530	547	552	546	557	566	578	578	566	565	566	566	565	566	
27	566	565	565	565	566	568	561	556	548	545	544	548	556	552	564	559	561	562	563	568	570	567	568	566	
28*	563	560	562	563	566	566	563	550	541	535	533	534	537	541	553	563	568	564	572	579	578	576	574	571	
29*	571	569	568	570	568	567	564	559	553	547	544	544	547	546	545	553	563	574	578	582	582	583	582	579	
30	573	574	574	573	574	576	573	561	548	543	552	560	560	568	566	568	577	586	588	594	591	583	578	572	
31	570	569	577	573	572	573	571	562	551	547	546	546	549	536	546	557	567	575	580	576	579	611	607	596	
Mean	564	564	563	564	564	561	553	546	536	530	530	536	540	546	556	563	573	573	577	576	573	570	569	566	
Mean*	564	561	561	563	564	562	556	548	542	536	534	536	542	545	552	560	567	568	574	576	575	572	572	572	
Mean**	555	564	563	566	566	560	543	539	526	518	521	529	530	540	556	567	592	565	583	584	571	566	556	550	
August.	18000 γ + Tabular Quantities (in γ).																								
1**	603	588	557	561	551	558	561	552	539	527	536	562	586	534	537	543	545	562	567	567	559	555	532	560	
2	537	532	538	542	545	556	521	521	524	532	528	536	541	545	541	545	544	546	562	564	564	577	560	559	
3	555	551	557	554	554	549	541	532	526	528	536	543	550	551	(550)	557	553	560	562	567	566	567	562	562	
4	557	557	557	563	564	546	548	547	545	538	523	533	544	554	562	564	573	583	572	576	575	568	560	566	
5	568	545	589	561	560	555	543	528	519	518	521	534	547	548	542	552	567	566	566	564	563	560	560	566	
6	559	554	558	558	559	554	547	540	534	532	534	543	553	561	567	565	568	570	570	570	569	568	566	569	
7*	562	561	561	566	566	562	558	550	535	527	527	536	544	552	558	565	568	574	576	576	572	568	567	566	
8*	566	564	566	564	562	558	553	545	538	531	529	532	536	548	555	561	563	566	573	576	573	571	568	568	
9*	570	571	568	571	568	565	561	550	541	536	539	548	553	558	561	568	569	573	574	578	574	573	573	572	
10	576	576	576	577	578	576	572	563	550	538	537	542	550	559	568	575	584	583	584	588	587	587	591	588	
11**	594	594	589	592	591	588	582	558	557	559	563	544	553	574	566	581	587	603	586	592	584	566	568	576	
12	576	563	563	566	562	557	550	543	540	535	537	532	540	556	562	563	568	568	574	573	579	578	568	568	
13	571	570	566	563	563	561	554	549	545	537	537	545	548	559	564	570	571	568	574	574	571	571	570	566	
14**	569	568	564	565	563	563	559	553	548	548	548	555	566	584	587	615	662	600	548	527	552	546	558	540	
15**	527	544	539	542	533	537	516	527	498	500	502	511	519	529	537	537	544	566	574	568	566	569	562	553	
16	561	566	551	547	549	540	541	525	535	522	532	542	538	555	546	542	542	551	563	566	566	566	566	574	
17	570	566	563	561	560	552	548	541	537	540	546	548	558	568	568	565	571	566	571	568	572	579	581	574	
18**	583	578	571	561	557	553	547	532	530	524	480	516	536	542	545	556	561	555	566	561	566	558	562	568	
19	557	555	554	563	550	547	540	539	538	531	524	535	545	525	574	576	552	550	550	558	559	561	559	559	
20	564	563	551	553	552	550	545	535	525	527	529	540	549	548	551	544	558	561	569	563	561	563	565	562	
21	564	574	572	561	559	557	549	537	534	529	529	535	542	555	561	558	563	562	566	566	567	565	562	568	
22	558	559	557	558	558	555	546	537	529	527	529	538	550	556	557	560	563	563	562	567	567	567	566	565	
23	564	562	562	564	563	561	554	547	535	535	533	549	555	562	562	557	561	563	567	571	573	573	575	571	
24	572	572	570	572	569	569	567	558	546	535	530	532	535	544	552	561	562	557	561	571	568	569	568	565	
25*	564	567	568	571	570	567	561	552	539	530	528	532	539	545	549	558	565	567	569	571	571	569	570	568	
26	568	569	570	570	568	566	560	549	540	534	529	535	548	556	560	577	582	591	586	586	585	588	586	573	
27	570	570	569	567	570	572	574	562	546	537	531	530	550	555	557	561	566	568	567	569	567	570	571	569	
28*	565	566	566	565	563	559	558	554	548	545	541	541	545	551	551	552	559	566	567	569	570	571	571	570	
29	570	570	566	566	565	563	563	556	545	535	536	548	558	566	570	568	572	569	572	569	569	570	567	567	
30	567	569	568	571	569	568	560	561	555	555	556	561	567	574	572	568	565	567	569	573	573	572	570	571	
31	575	575	572	557	557	562	557	552	544	541	545	558	571	582	572	570	576	580	558	571	576	570	584	596	
Mean	567	565	564	563	561	559	553	545	538	533	532	540	549	555	558	562	567	569	569	570	570	569	567	568	
Mean*	565	566	566	567	566	562	558	550	540	534	533	538	543	551	555	561	565	569	572	574	572	570	570	569	
Mean**	575	574	564	564	559	560	553	544	534	532	526	538	552	553	554	566	580	577	568	563	565	559	556	559	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE II.—HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
September.	18000 γ + Tabular Quantities (in γ).																								
1	567	561	561	559	562	561	554	540	535	536	533	545	553	559	557	557	565	566	564	570	571	568	574	571
2	580	575	563	563	563	562	553	546	540	545	549	558	571	568	563	558	561	563	560	570	571	569	571	568
3*	566	567	566	564	564	558	553	548	543	535	536	546	559	561	557	556	557	565	570	570	570	568	568	567
4*	566	567	566	565	562	558	555	546	538	535	538	540	552	561	563	562	565	573	569	572	571	570	573	566
5*	564	565	565	564	562	558	550	540	532	529	529	534	547	560	564	566	566	569	573	576	576	573	571	571
6	571	571	571	570	568	566	561	554	550	551	554	567	569	570	576	578	581	572	575	574	574	572	571	580
7**	590	604	615	595	567	535	557	550	553	511	485	507	530	540	540	513	537	541	539	552	557	563	566	572
8	561	549	548	548	550	552	548	542	534	528	527	535	542	550	553	549	550	558	561	564	562	559	560	570
9	558	552	552	552	561	563	554	544	526	528	535	535	540	548	550	554	564	570	575	571	575	574	565	549
10**	544	557	575	548	551	553	564	513	496	479	482	503	518	532	531	530	539	558	571	547	570	540	548	550
11**	561	541	554	560	557	544	556	536	488	491	506	496	498	508	514	536	538	541	554	557	564	557	558	548
12	552	544	546	551	555	557	533	538	521	530	522	500	518	535	540	541	548	540	538	560	549	559	559	579
13	552	541	562	557	544	565	553	547	536	528	526	508	518	530	549	558	546	543	546	543	552	561	565	562
14**	578	567	566	556	549	538	555	554	554	506	504	511	532	532	525	523	540	544	543	553	569	552	569	558
15	543	545	557	540	546	536	548	539	535	523	496	506	522	537	538	548	555	552	560	552	568	563	556	558
16	562	561	556	547	551	544	544	540	539	531	527	520	533	525	542	535	547	546	553	553	551	561	569	573
17	557	557	554	548	557	551	541	535	532	522	528	540	541	534	549	549	548	554	555	554	554	557	562	565
18	561	559	559	555	558	555	553	550	545	538	532	537	542	547	545	545	550	553	551	547	553	555	566	561
19*	559	556	556	555	556	559	558	550	542	538	537	551	564	570	567	563	559	559	561	563	564	564	565	560
20	561	561	564	565	565	565	564	561	553	543	551	543	562	568	568	565	567	572	567	568	569	564	570	570
21	561	567	562	562	562	561	561	558	551	545	539	535	540	541	548	557	555	530	543	567	567	570	561	561
22**	572	581	573	562	583	577	552	535	524	510	464	473	501	505	542	531	521	522	529	532	547	555	552	547
23	547	547	545	544	546	547	544	535	523	514	503	508	522	521	542	536	552	557	557	560	560	570	564	556
24	556	552	552	562	572	575	562	555	541	531	527	534	539	542	547	552	552	555	561	560	560	560	559	566
25	565	550	550	554	556	563	564	558	551	542	531	535	540	526	532	551	556	570	558	565	566	569	558	569
26	563	556	556	556	559	561	561	558	552	527	517	524	535	537	538	538	555	561	559	553	566	569	562	564
27	567	571	571	567	562	563	563	563	553	545	517	509	521	532	517	535	550	556	556	550	575	543	556	558
28	553	554	555	554	556	555	556	552	545	540	538	540	540	545	546	545	550	557	559	561	559	561	561	558
29*	557	556	555	559	558	558	558	553	548	539	533	532	534	541	550	553	554	556	559	562	562	563	563	565
30	562	562	567	571	568	567	566	562	555	547	544	543	544	535	540	538	550	558	560	555	562	562	573	568
Mean	562	560	561	558	559	557	555	547	538	529	524	527	538	542	547	547	553	555	558	559	564	562	564	564
Mean*	562	562	562	561	560	558	555	547	541	535	535	541	551	559	560	560	560	564	566	569	569	568	568	566
Mean**	569	570	577	564	561	549	557	538	523	499	488	498	516	523	536	527	535	541	547	548	561	553	559	555
October.	18000 γ + Tabular Quantities (in γ).																								
1*	564	560	559	560	559	559	558	554	544	536	527	528	532	542	546	548	550	556	561	562	566	566	563	563
2*	562	561	565	564	565	565	562	555	545	537	537	537	543	552	562	563	564	563	561	557	554	555	567	570
3	566	572	571	562	568	567	564	561	550	539	533	541	551	562	560	560	561	566	564	565	564	564	563	562
4	562	560	570	572	560	561	564	559	554	549	525	536	546	554	559	554	545	558	558	564	559	563	593	576
5	554	557	557	557	559	560	559	557	549	517	518	528	540	545	547	552	554	557	560	561	564	567	558	559
6	560	562	564	567	569	568	572	570	561	537	523	520	531	536	544	549	553	557	561	561	561	564	564	563
7**	563	564	565	566	566	570	575	577	566	559	514	521	508	489	503	526	520	527	523	557	515	512	538	546
8**	543	530	528	537	532	532	530	544	528	525	511	469	492	524	536	543	531	557	560	565	557	549	550	581
9	537	541	536	—	—	—	—	—	—	—	498	477	484	500	517	542	539	544	544	576	552	544	560	547
10	539	544	550	549	548	542	535	535	521	510	505	511	500	521	533	537	543	545	558	558	576	555	552	556
11	552	551	547	554	552	552	555	544	539	527	513	520	523	530	537	543	544	542	553	563	570	555	556	555
12	558	568	558	570	570	564	561	551	532	526	522	511	515	523	519	530	524	527	531	538	536	551	551	556
13	549	560	565	570	565	567	532	543	536	519	502	500	508	522	526	524	528	537	542	545	546	557	557	554
14	553	555	565	555	558	552	550	543	540	536	534	532	532	533	534	532	541	547	550	555	555	555	552	553
15*	552	553	553	552	555	561	560	550	540	529	523	521	527	538	543	542	543	551	556	556	557	555	562	560
16**	559	559	558	559	559	562	563	561	550	543	541	555	543	538	535	558	514	501	475	441	477	501	534	543
17**	555	542	542	540	526	532	534	539	544	546	539	537	539	550	555	555	565	555	544	487	500	509	521	524
18	531	526	547	558	540	536	547	543	531	516	513	506	509	511	511	519	516	513	539	544	548	544	564	537
19	534	529	547	572	580	549	548	515	496	498	501	513	525	525	515	528	517	505	516	519	529	529	540	551
20	553	552	555	560	559	551	555	553	545	521	519	524	529	531	531	532	543	537	542	529	542	550	550	553
21	547	562	561	552	555	554	556	555	537	522	523	531	535	541	539	544	550	553	551	547	545	552	552	550
22	554	557	557	558	564	565	564	560	552	529	526	532	531	531	542	550	559	562	565	565	555	560	557	550
23	560	560	559	560	560	563	560	557	541	527	526	532	539	546	552	550	555	546	557	559	552	550	553	557
24	552	555	552	550	556	557	557	563	552	544	529	521	530	548	547	548	543	551	551	568	563	556	555	585
25	555	557	555	559	562	560	557	557	550	543	537	534	542	546	543	548	553	557	561	562	571	573	556	557
26*	558	560	558	558	558	561	560	558	558	552	545	543	548	552	556	553	558	562	564	565	563	562	563	561
27*	561	562	557	556	560	561	562	558	551	543	538	533	535	541	548	551	557	554	556	562	566	566	563	563
28	562	562	562	562	564	567	570	569	565	555	549	547	552	559	562	559	563	567	568	574	573	566	567	563
29	574	567	548	550	559	555	562	565	560	552	544	541	537	532	539	549	554	556	564	567	568	566	562	557
30**	553	560	560	560	565	570	572	566	563	559	559	566	554	501	518	528	536	542	533	558	533	549	570	546
31	552	550	552	553	557	549	557	546	535	531	528	533	536	542	542	555	554	555	552	541	542	568	549	552
Mean	555	555	556	558	558	557	557	554	545	534	527	527	531	536	540	544	545	547	549	550	550	552	556	557
Mean*	559	559	558	558	559	561	560	555	548	539	534	532	537	545	551	551	554	557	560	560	561	561	564	563
Mean**	555	551	551	552	550	553	555	557	550	546	533	530	527	520	529	542	533	536	527	522	516	524	543	548

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE II.—HOURLY MEANS OF HORIZONTAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
November.	18000 γ + Tabular Quantities (in γ).																								
1	552	560	563	561	557	565	564	575	565	559	550	554	546	552	545	548	554	557	561	568	533	543	527	531	
2**	551	549	562	551	548	555	554	542	533	526	520	533	533	522	523	531	534	533	533	533	556	546	547	551	
3**	538	559	570	554	557	529	510	487	497	480	425	455	479	475	479	500	490	533	526	531	507	513	513	532	
4**	536	516	519	520	537	532	525	530	517	510	496	497	517	517	519	502	516	511	530	522	527	546	547	545	
5**	535	538	540	544	535	537	535	543	532	517	522	504	515	525	520	525	531	530	541	534	560	540	544	548	
6	551	538	531	543	547	543	530	533	527	505	499	496	512	517	525	536	538	548	543	539	543	547	540	558	
7	548	540	541	547	543	544	543	540	532	525	527	506	512	522	523	516	534	522	522	522	540	539	544	543	
8	542	544	542	539	546	555	552	548	542	537	539	535	536	536	536	540	540	548	548	550	556	558	566	566	
9	564	557	556	559	558	561	557	558	556	548	540	536	535	522	518	514	533	535	540	546	546	545	545	543	
10*	538	541	544	544	544	545	543	540	534	525	519	527	532	535	538	540	543	547	551	553	554	553	553	552	
11*	552	553	554	554	557	556	552	550	539	531	523	526	532	535	544	548	549	555	559	560	561	559	558	557	
12	557	556	556	557	561	563	559	558	552	544	543	546	550	554	553	547	548	551	549	554	554	555	549	548	
13	554	551	552	555	557	555	559	557	552	545	542	544	542	541	541	539	544	546	552	552	546	528	540	545	
14	545	542	545	546	552	555	554	554	552	550	551	548	542	541	539	537	533	543	552	552	549	539	540	542	
15	541	555	560	550	556	567	557	554	556	540	535	540	536	534	537	529	524	543	544	537	542	540	553	577	
16**	564	550	556	554	553	564	562	543	538	525	518	491	487	502	515	495	522	505	504	502	519	505	528	533	
17	538	538	537	541	538	539	535	532	530	531	529	526	530	537	541	543	544	546	548	549	547	546	543	543	
18*	547	547	549	552	552	553	552	551	543	536	534	534	536	543	538	540	537	544	548	549	551	549	549	549	
19	550	552	551	551	555	558	564	564	559	551	552	548	545	543	547	552	550	551	553	556	553	552	550	553	
20	555	553	554	552	549	552	557	558	560	557	553	553	560	551	544	534	526	511	494	495	516	526	531	531	
21	533	538	540	544	548	548	559	561	554	545	539	534	549	559	555	557	562	567	568	545	547	557	555	553	
22	551	552	559	560	559	561	561	559	554	548	544	547	557	560	562	567	562	560	552	552	557	557	555	560	
23	564	558	548	550	555	560	560	558	556	550	540	540	544	549	551	556	559	560	561	558	558	554	553	553	
24*	553	554	553	557	561	559	561	563	558	551	548	545	547	553	551	552	555	558	557	563	565	563	562	560	
25*	558	558	558	558	561	564	565	562	558	551	548	546	547	546	540	543	553	561	569	570	570	569	566	563	
26	561	558	559	562	563	566	568	571	574	571	566	554	556	563	564	569	570	571	579	559	559	561	561	565	
27	553	552	545	542	543	547	554	556	559	565	556	553	548	543	545	546	543	540	545	549	549	563	562	548	
28	549	553	553	551	550	553	558	560	563	558	561	558	553	563	558	553	555	556	545	539	543	556	556	556	
29	562	558	556	556	556	562	559	557	554	544	542	539	533	543	548	539	549	555	554	558	554	557	567	559	
30	555	557	553	556	554	556	555	553	548	541	539	540	547	551	549	533	538	549	550	551	571	571	555	554	
Mean	550	549	550	550	552	554	552	551	547	539	533	532	535	538	538	538	541	545	546	545	548	548	549	551	
Mean*	550	551	552	553	555	555	555	553	546	539	534	536	539	542	542	545	547	553	557	559	560	559	558	556	
Mean**	545	542	549	545	546	543	537	529	523	512	496	496	506	508	511	511	519	522	527	524	534	530	536	542	
December.	18000 γ + Tabular Quantities (in γ).																								
1*	554	552	552	553	556	557	558	555	550	542	542	543	549	547	547	553	554	558	563	564	564	561	560	560	
2*	562	564	564	566	567	571	572	566	560	547	543	544	545	542	547	550	553	558	558	564	564	560	560	562	
3	563	562	562	561	564	566	566	563	555	550	549	543	553	555	551	542	534	542	562	553	524	498	507	521	
4**	505	536	552	539	549	540	523	494	487	500	479	494	487	497	471	479	497	496	484	497	494	498	513	522	
5**	533	549	554	564	518	527	546	523	468	481	480	484	482	500	489	486	497	500	505	505	507	518	520	537	
6	558	548	552	551	541	529	528	510	502	505	500	505	505	507	497	511	507	511	502	505	529	523	528	527	
7	541	541	539	542	546	539	534	530	526	519	522	527	518	502	500	513	526	539	541	544	544	545	544	542	
8	541	544	544	549	566	559	554	540	537	538	537	535	517	516	521	528	513	528	544	549	549	539	533	541	
9	543	541	546	546	546	554	555	546	539	540	534	536	531	533	534	535	537	536	539	539	528	535	542	548	
10	541	542	545	544	545	546	552	557	552	548	543	547	552	544	529	514	523	527	541	546	546	544	559	552	
11	548	556	561	542	559	557	563	557	549	535	529	531	542	541	543	539	546	526	519	531	536	528	519	520	
12	547	553	529	545	568	548	549	538	520	523	523	527	526	529	538	543	544	544	544	526	532	542	548	547	
13	548	552	549	549	548	557	550	555	553	549	544	544	544	546	545	546	546	549	552	554	555	554	554	554	
14	552	552	549	549	552	552	554	552	550	546	546	551	551	549	550	551	554	551	539	541	546	552	555	555	
15	560	554	552	554	554	557	560	557	553	551	548	547	550	549	541	539	538	545	550	554	554	552	552	556	
16**	557	559	564	567	567	563	562	560	557	549	546	552	536	518	502	494	495	484	443	474	494	515	521	517	
17**	525	524	524	527	532	539	545	548	550	543	545	553	550	547	541	538	542	540	504	482	472	511	517	503	
18	521	528	538	541	548	539	538	538	538	531	528	539	538	530	533	537	542	543	532	533	542	539	554	538	
19*	544	544	545	544	545	549	548	548	544	542	544	543	547	550	551	551	549	549	550	552	552	550	549	544	
20*	552	551	548	551	556	557	557	561	557	545	538	542	547	549	551	549	552	555	555	555	555	555	554	553	
21*	554	554	554	555	558	559	561	562	558	553	546	547	549	553	553	552	554	558	561	563	563	561	559	560	
22**	563	564	559	550	569	569	571	566	566	570	569	540	526	539	520	523	529	515	501	527	548	541	570	551	
23	526	531	533	536	543	548	545	540	537	535	533	530	537	540	543	545	546	540	553	535	528	545	550	546	
24	543	544	545	548	548	549	550	550	548	550	548	549	550	550	546	553	552	551	556	558	556	548	562	541	
25	541	543	543	545	558	551	548	549	551	548	545	543	541	541	547	553	557	550	548	551	548	562	549	552	
26	547	549	547	550	556	558	563	557	554	549	550	548	546	551	558	562	559	558	558	558	562	558	556	556	
27	557	555	556	554	556	561	563	562	558	550	545	543	545	543	551	555	554	553	553	553	556	559	561	561	
28	561	558	558	558	560	561	563	561	558	554	553	554	550	556	554	556	550	548	556	556	557	563	559	558	
29	557	556	556	563	563	563	561	559	553	545	546	553	553	556	555	556	561	564	558	551	549	550	557	550	
30	551	560	558	550	555	557	565	561	549	539	545	547	541	547	551	545	549	556	555	557	559	560	557	557	
31	556	562	555	555	557	560	561	560	553	542	556	557	555	562	544	547	562	550	528	531	542	540	541	539	
Mean	547	549	550	550	553	553	554	549	543	539	537	539	538	538	536	537	540	540	537	539	541	542	546	544	
Mean*	553	553	553	554	556	559	559	558	554	546	543	544	547	548	550	551	552	556	557	560	560	557	556	556	
Mean**	537	546	551	549	547	548	549	538	526	529	524	525	516	520	505	504	512	507	487	497	503	517	528	526	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE III.—HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC FORCE AT ABINGER.

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
January.	42000 γ + Tabular Quantities (in γ).																								
1*	919	918	918	919	919	919	918	919	918	914	914	912	915	920	923	921	920	920	920	919	918	919	918	918
2	918	917	916	916	916	916	917	917	916	918	919	915	918	922	922	920	920	921	922	921	920	919	919	916
3	917	916	916	916	916	916	917	918	919	918	915	915	919	923	924	921	920	919	921	923	927	930	934	931
4	928	925	920	915	918	920	922	921	921	920	917	912	917	921	923	922	921	920	919	921	921	921	921	920
5**	920	919	918	918	916	916	917	919	919	917	913	910	913	920	921	920	925	931	942	950	946	943	939	932
6	926	923	921	919	920	921	922	922	922	922	922	918	917	920	921	925	927	928	931	930	926	924	923	923
7	922	922	921	920	920	920	922	922	922	920	919	915	915	919	921	920	922	922	922	922	922	921	921	920
8**	920	919	919	916	915	916	916	917	916	916	917	917	915	917	922	928	927	926	924	923	922	922	924	917
9**	902	900	904	911	910	917	918	921	920	916	915	915	919	927	935	937	940	942	944	936	936	941	936	930
10**	926	925	924	925	923	924	924	922	919	920	922	923	923	927	930	933	939	933	932	932	930	928	924	923
11	923	912	913	915	911	907	909	913	915	915	913	914	917	921	922	925	924	923	923	921	921	921	921	921
12	922	922	922	923	922	923	922	922	925	923	919	915	919	926	928	926	926	924	922	922	921	920	920	919
13	920	920	920	920	919	919	919	918	918	917	916	913	915	920	924	925	925	925	924	923	922	922	920	921
14**	922	918	918	918	919	920	919	921	921	918	914	914	915	921	930	941	939	935	931	928	930	927	925	924
15	924	924	921	921	922	922	922	921	921	918	914	911	913	923	924	926	930	930	928	926	924	923	921	920
16	921	921	921	921	921	921	921	920	917	912	906	905	907	915	922	925	927	927	926	925	924	924	923	919
17*	918	918	919	920	921	921	921	920	918	916	914	911	911	913	920	922	921	923	923	922	921	920	918	918
18*	917	917	918	918	918	919	918	918	916	918	918	914	911	914	916	918	921	920	920	920	920	919	918	918
19*	918	917	916	916	916	918	918	918	917	918	916	910	910	917	921	921	920	919	920	920	919	918	918	917
20	916	915	915	915	915	915	915	914	913	911	908	904	906	912	914	912	912	912	914	914	915	918	921	923
21	921	919	918	917	916	916	916	916	914	915	918	913	918	922	921	922	921	922	926	924	923	922	921	921
22	921	918	915	914	914	916	917	919	918	918	916	909	909	913	920	922	925	923	922	922	923	927	928	928
23*	928	925	923	922	921	921	920	919	916	914	917	918	917	920	924	927	923	921	922	922	921	922	921	922
24	923	922	921	921	920	919	919	919	920	920	921	923	923	927	928	926	923	921	920	920	919	922	923	923
25	922	921	920	920	919	918	917	917	916	915	913	906	905	914	917	919	919	919	922	922	921	918	918	918
26	917	917	917	917	916	916	916	914	912	912	911	909	910	916	919	919	919	919	920	920	921	923	923	922
27	921	920	919	918	918	918	916	914	914	914	910	906	905	911	916	916	918	917	916	916	914	913	912	912
28	913	914	914	914	914	914	913	911	909	910	908	906	907	914	916	918	921	921	921	921	921	918	918	916
29	915	914	913	913	914	914	914	913	914	913	909	906	908	915	920	918	918	920	921	924	929	928	924	923
30	922	919	918	918	918	918	918	918	916	916	914	912	911	916	916	917	917	918	920	920	918	918	916	914
31	914	914	915	914	914	916	916	918	921	921	920	916	914	917	920	920	922	922	923	922	922	921	920	920
Mean	920	919	918	918	918	918	918	918	918	917	915	913	914	919	922	923	923	923	924	924	923	923	922	921
Mean*	920	919	919	919	919	920	919	919	917	916	916	913	913	917	921	922	921	921	921	921	920	920	919	919
Mean**	918	916	917	918	917	919	919	920	919	917	916	916	917	922	928	932	934	933	935	934	933	932	930	925
February.	42000 γ + Tabular Quantities (in γ).																								
1	920	919	917	916	916	917	918	919	918	916	913	910	911	915	920	918	918	920	921	920	921	921	920	916
2	916	914	915	916	916	916	916	918	918	916	915	914	914	920	926	929	925	922	923	922	920	920	918	919
3*	918	916	917	917	917	916	917	919	921	922	919	914	913	917	921	921	918	918	918	919	918	917	916	916
4*	916	915	915	914	914	914	916	917	920	918	916	917	918	920	924	924	921	917	916	916	916	915	915	914
5*	914	914	912	912	912	912	913	913	913	907	904	901	904	905	908	911	914	913	914	915	916	915	915	915
6	914	913	913	912	911	911	910	911	913	909	906	909	910	911	916	922	933	932	935	938	930	928	926	925
7	923	917	910	914	915	917	917	917	919	919	917	919	921	921	920	921	922	920	919	921	921	919	917	917
8	918	916	916	918	918	918	918	919	920	920	916	915	915	916	918	924	923	926	929	937	949	947	933	924
9**	922	920	920	920	918	919	918	918	918	918	916	915	920	925	930	936	935	930	935	932	930	924	923	921
10	920	915	914	917	917	918	918	919	919	914	913	911	918	920	926	934	942	934	930	931	925	923	922	921
11	921	921	921	921	921	921	921	924	924	919	914	914	916	924	933	933	933	931	926	924	923	921	921	919
12	915	916	916	918	918	920	920	921	921	918	913	910	909	910	916	920	924	922	922	921	921	920	918	918
13	916	911	911	913	915	915	915	916	917	911	905	906	909	911	914	916	919	921	920	919	917	915	915	914
14*	914	914	915	914	915	915	915	916	918	913	910	909	909	909	909	911	915	918	917	917	916	916	914	912
15*	913	913	913	913	913	913	913	916	916	909	905	904	904	907	910	912	913	915	916	916	916	915	914	913
16	913	913	913	913	913	913	914	914	917	911	907	902	899	900	904	911	914	918	923	922	918	916	918	920
17**	904	910	910	908	884	889	884	890	890	895	904	911	912	938	958	982	1004	991	979	970	959	916	904	901
18**	897	900	893	872	878	900	918	925	925	924	924	922	919	922	926	931	935	937	940	939	941	943	941	938
19	934	925	922	916	905	901	905	908	911	914	914	913	914	918	926	937	950	942	941	943	942	942	937	932
20	930	922	923	922	919	921	924	928	930	928	922	920	918	915	918	924	926	928	928	931	934	933	931	930
21	927	926	925	920	917	914	916	917	918	919	917	914	914	912	917	922	926	926	926	926	928	934	935	929
22	924	922	921	922	923	923	922	924	924	920	912	907	912	917	920	936	955	947	939	937	940	934	931	924
23	918	920	922	917	922	924	923	922	923	923	918	917	918	917	922	929	929	929	928	927	926	926	924	924
24	919	916	918	919	921	922	922	924	926	920	917	912	911	912	920	926	930	931	929	929	926	925	925	926
25	926	926	926	926	926	926	924	922	922	919	914	906	906	907	913	920	924	928	932	941	943	941	921	919
26	925	926	928	928	929	927	925	924	923	918	910	907	911	915	919	924	926	928	928	928	926	924	920	907
27**	902	888	898	904	913	915	915	917	920	918	912	905	912	923	939	973	993	1005	989	1019	979	909	861	874
28**	839	846	852	860	899	909	918	931	939	941	948	948	955	979	998	972	965	966	960	948	943	940	939	938
Mean	915	913	913	913	914	915	916	918	919	917	914	913	914	918	924	929	933	933	932	932	930	925	921	919
Mean*	915	914	914	914	914	914	915	916	918	914	911	909	910	912	914	916	916	916	916	917	916	916	915	914
Mean**	893	893	895	893	898	906	911	916	918	919	921	920	924	937	950	959	966	966	961	962	950	926	914	914

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE III.—HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
March.	42000 γ + Tabular Quantities (in γ).																								
1	936	935	936	936	936	938	936	941	939	938	933	929	929	935	938	942	948	947	943	942	940	938	936	936
2	934	932	931	931	931	931	934	935	933	924	916	912	917	919	926	931	934	936	936	938	935	932	931	930
3	929	928	928	928	928	928	928	930	927	921	914	910	910	919	922	929	937	946	948	941	936	934	932	925
4*	924	923	921	923	925	925	925	924	925	922	914	913	919	922	926	928	933	930	929	929	928	927	926	926
5	926	925	925	924	922	921	922	923	923	924	919	916	918	921	924	922	923	924	924	926	927	927	926	926
6*	927	926	926	926	926	926	926	928	927	925	919	917	921	926	931	931	931	927	927	928	930	929	928	926
7	924	924	924	924	924	924	925	925	924	923	918	915	918	925	931	936	936	937	940	938	942	942	942	935
8**	931	925	919	924	923	923	923	920	916	911	906	906	914	920	934	949	961	950	943	941	936	933	931	931
9	930	930	928	925	924	926	928	929	930	924	920	918	919	926	933	938	941	940	932	931	931	930	927	925
10*	926	926	924	924	920	922	923	925	925	918	911	904	904	910	920	931	932	932	930	929	928	928	926	926
11**	926	925	924	924	924	924	924	924	924	924	920	918	919	922	924	938	956	959	950	942	943	944	940	933
12	925	902	894	848	833	827	816	841	888	907	926	948	966	1018	1039	1063	1044	1020	1001	976	953	941	939	932
13	937	931	922	924	914	916	926	935	938	936	930	926	924	931	938	941	948	947	946	943	941	941	930	924
14	924	929	929	931	931	933	936	936	929	921	919	920	930	938	948	951	952	948	947	948	948	941	927	931
15**	931	931	932	934	934	934	935	935	935	923	920	920	923	935	955	979	1003	1004	980	974	954	936	928	924
16**	900	886	852	845	866	885	901	921	930	936	934	935	952	948	950	954	965	967	966	959	950	943	938	926
17	924	918	914	907	911	917	919	926	928	926	916	917	915	920	928	943	956	959	952	944	937	932	933	934
18	931	928	930	930	930	929	931	934	929	919	914	913	918	926	936	942	947	953	953	948	943	939	936	934
19	933	930	929	929	928	930	934	935	931	926	921	917	919	922	929	936	942	942	945	946	947	942	937	933
20	931	931	929	925	917	919	923	922	922	914	914	909	910	914	922	938	946	938	942	947	943	936	931	919
21**	910	909	902	890	898	898	894	901	911	911	910	910	920	928	933	939	944	950	946	940	938	938	934	923
22	918	919	922	923	921	918	919	920	922	918	917	914	914	918	933	933	940	946	938	935	932	930	926	926
23	927	927	927	926	926	926	927	925	921	919	913	907	912	920	929	931	932	932	933	932	932	930	922	921
24	920	921	921	914	917	923	926	926	922	919	909	904	910	922	932	944	947	942	933	930	927	922	920	923
25	923	923	923	923	923	920	922	924	925	922	917	914	915	917	927	965	971	962	954	949	943	940	938	929
26	930	931	932	934	933	932	933	932	928	922	916	912	916	922	931	937	937	934	932	932	932	930	931	919
27	921	924	924	927	928	928	930	930	922	912	902	899	904	915	922	928	930	933	930	933	935	927	924	927
28	924	917	915	916	922	923	926	926	920	912	905	904	908	917	924	929	932	934	934	931	930	929	923	912
29	908	913	914	912	907	910	919	926	924	918	912	908	907	912	919	930	934	937	932	930	929	928	926	923
30*	923	920	917	921	925	928	932	930	922	918	911	908	911	913	920	927	932	932	930	929	926	925	925	924
31*	924	921	920	920	923	925	927	925	920	915	911	903	906	911	917	922	924	924	924	925	923	923	922	920
Mean	925	923	921	918	918	920	922	924	925	921	916	914	918	926	934	942	947	946	943	940	937	934	930	927
Mean*	925	923	922	923	924	925	927	926	924	920	913	909	912	916	923	928	930	929	928	928	927	926	925	924
Mean**	920	915	906	903	909	913	915	920	923	921	918	918	926	931	939	952	966	966	957	951	944	939	934	927
April.	42000 γ + Tabular Quantities (in γ).																								
1	919	912	914	916	919	919	919	916	913	910	904	900	902	902	912	919	926	927	928	928	927	924	922	916
2	913	917	919	920	920	921	922	921	916	908	897	892	893	903	910	915	920	920	921	922	922	922	920	920
3	920	917	912	914	915	917	918	917	910	903	898	893	895	905	915	921	926	930	931	928	926	923	920	915
4**	913	913	915	915	915	915	917	912	905	898	894	891	891	904	911	917	923	929	932	927	923	920	920	920
5	921	918	918	917	916	918	918	917	914	908	898	896	899	904	916	925	926	933	930	928	923	922	922	916
6	907	912	915	916	917	918	922	919	914	908	905	904	904	910	917	922	920	919	919	919	919	919	919	918
7	919	919	918	917	917	917	921	920	915	909	907	905	905	910	917	918	919	917	917	918	917	917	917	916
8	917	913	913	915	914	916	920	918	911	906	899	894	900	906	913	918	920	920	922	920	921	919	918	918
9*	919	917	914	916	917	917	919	919	914	907	900	893	893	900	909	914	917	917	917	917	917	916	916	917
10	918	918	918	917	917	917	919	918	913	907	901	892	891	900	909	916	919	921	921	921	921	919	919	917
11	917	912	907	910	912	915	919	919	909	897	889	884	885	893	906	914	917	917	916	915	914	914	912	912
12	913	914	915	915	916	917	918	918	912	905	897	890	889	893	907	913	918	920	920	918	916	915	913	912
13	910	910	912	913	913	910	913	916	914	906	898	897	896	898	908	918	925	930	927	923	920	918	916	915
14*	916	916	916	916	916	917	918	917	911	901	893	890	889	895	905	910	913	916	919	919	917	915	914	913
15	913	913	913	913	913	914	915	914	912	905	896	888	893	899	906	910	914	918	919	918	920	920	919	917
16**	913	900	902	888	868	871	888	895	899	898	898	896	894	905	927	928	941	953	951	944	935	930	925	899
17**	897	883	890	902	911	913	914	913	911	905	901	899	899	904	915	926	939	938	938	932	925	923	918	913
18	909	912	914	916	916	915	913	909	906	903	898	892	898	904	911	916	921	923	927	925	923	923	919	914
19	907	911	914	913	909	909	913	911	911	901	899	898	897	902	911	919	926	927	928	926	923	922	921	921
20*	919	919	919	918	918	918	919	920	919	911	902	897	897	901	909	913	916	919	919	919	919	919	919	919
21	918	919	918	915	907	903	900	904	905	903	898	898	903	910	917	920	919	920	922	923	922	920	915	914
22	915	915	913	909	906	912	912	915	914	905	898	896	893	900	909	917	920	921	920	918	915	915	916	916
23*	918	917	917	918	918	918	916	913	909	899	887	884	886	894	905	913	917	920	922	919	916	916	916	916
24*	917	917	917	917	917	916	917	914	910	902	899	897	895	902	908	914	919	924	924	922	919	919	917	916
25	915	913	915	916	917	916	914	914	909	903	895	891	891	899	906	910	916	921	923	923	920	920	918	915
26	908	910	913	914	917	916	914	915	913	906	899	889	889	896	908	915	918	923	923	918	918	917	915	913
27	914	915	911	909	912	913	913	911	908	905	901	896	891	899	908	914	917	918	918	918	915	915	918	918
28	917	915	904	905	911	911	907	908	905	901	896	895	897	903	911	915	924	926	925	923	921	917	914	915
29**	915	914	912	909	911	912	912	910	904	897	890	889	891	902	917	926	933	936	937	934	930	922	919	914
30**	914	913	913	912	916	917	917	911	907	902	899	893	890	894	905	917	918	926	928	928	925	921	918	917
Mean	914	913	913	913	913	914	915	914	910	904	898	894	895	901	911	917	922	924	925	923	921	919	918	915
Mean*	918	917	917	917	917	917	918	917	913	904	896	892	892	898	907	913	916	919	920	919	918	917	916	916
Mean**	910	905	906	905	904	906	910	908	905	900	896	894	893	902	915	923	931	936	937	933	928	923	920	913

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE III.—HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
May.	42000 γ + Tabular Quantities (in γ).																								
1	913	907	910	913	916	917	916	912	907	897	888	886	889	895	905	914	919	922	922	923	923	921	919	917
2	915	915	914	909	908	913	916	917	917	914	908	903	898	902	909	914	918	922	921	920	917	916	916	915
3	913	905	897	904	905	904	909	908	907	902	896	891	889	904	912	918	918	921	918	918	916	918	916	913
4	906	906	906	905	906	909	909	909	904	904	902	897	897	905	911	914	915	916	916	916	916	914	915	915
5*	907	908	910	911	914	916	918	915	911	905	899	892	892	901	911	914	917	918	916	916	916	914	915	914
6	916	915	915	915	917	917	915	912	907	899	891	885	883	888	895	906	911	917	917	915	916	915	915	915
7	914	913	913	914	915	915	913	909	912	907	902	895	898	904	912	918	919	924	927	925	922	917	917	916
8	916	917	918	918	920	920	916	913	911	899	889	886	889	899	912	918	916	918	920	921	922	916	916	916
9	916	916	916	914	916	916	915	910	904	894	887	887	894	901	911	918	918	919	917	916	915	913	913	913
10*	914	915	916	916	917	917	914	909	901	890	882	883	891	901	908	914	917	920	917	914	912	910	911	911
11	912	912	913	914	917	914	911	908	903	895	888	881	879	888	890	912	914	919	920	917	914	911	910	909
12	907	907	907	909	910	902	897	900	897	894	890	882	888	898	905	909	917	923	925	921	917	916	917	913
13**	913	913	913	898	875	874	871	878	881	876	878	877	883	900	929	935	938	945	940	926	922	916	913	910
14**	911	910	909	907	908	910	912	913	909	901	896	889	888	891	899	910	915	924	925	927	924	915	906	909
15**	909	905	904	904	907	905	910	908	908	898	895	891	889	896	913	919	924	927	925	921	922	911	908	907
16**	903	897	896	890	886	895	903	906	905	897	889	880	891	903	910	918	930	934	932	925	922	915	915	911
17	908	907	905	900	894	896	896	893	889	886	881	882	890	904	913	918	922	927	924	921	916	914	913	913
18*	914	913	913	914	917	919	919	915	909	902	899	898	897	902	913	916	920	923	923	921	919	918	916	915
19	912	909	905	906	907	907	907	904	899	896	892	889	892	902	911	916	919	924	926	926	923	920	919	917
20	916	914	911	911	912	914	911	906	899	894	892	889	890	898	913	915	921	921	919	916	914	914	914	911
21*	907	906	908	910	913	915	914	911	907	899	893	892	898	907	911	916	919	919	918	915	912	911	911	911
22*	910	908	908	910	913	911	909	908	901	890	883	887	894	891	880	882	890	895	897	897	895	894	892	892
23**	893	904	912	914	922	937	928	891	890	890	888	886	887	896	906	913	918	922	921	919	916	914	915	916
24	918	918	917	918	920	920	918	913	910	901	893	889	889	896	905	913	920	923	921	918	918	918	917	915
25	904	904	899	893	888	883	890	897	901	895	888	884	888	903	914	926	930	931	928	925	925	922	920	916
26	913	913	915	915	917	918	916	911	905	902	889	874	879	893	907	911	917	920	926	929	927	920	917	915
27	908	901	906	911	914	915	910	908	900	897	890	882	882	888	894	904	911	917	921	918	914	913	912	911
28	911	911	911	912	915	916	911	905	898	896	887	880	877	881	894	905	919	924	930	928	921	916	913	912
29	913	912	914	915	917	917	914	913	907	896	895	890	894	900	904	914	917	921	922	919	916	913	912	911
30	911	911	911	913	915	915	912	908	903	894	885	881	883	893	905	911	917	923	924	923	920	915	911	911
31	911	911	912	914	917	919	916	914	908	904	900	897	899	908	915	919	920	916	919	920	921	916	914	913
Mean	911	910	910	910	910	911	910	907	904	897	892	887	890	898	907	914	918	922	922	920	918	915	914	912
Mean*	910	910	911	912	915	916	915	912	906	897	891	890	894	900	905	908	913	915	914	913	911	909	909	909
Mean**	906	906	907	903	900	904	905	899	899	892	889	885	888	897	911	919	925	930	929	924	921	914	911	911
June.	42000 γ + Tabular Quantities (in γ).																								
1	910	910	908	908	913	913	910	910	908	899	891	886	891	901	906	908	913	917	917	919	918	915	911	908
2	909	909	910	911	914	915	914	911	904	902	900	899	897	904	916	920	921	926	926	921	918	916	914	912
3	910	911	910	911	915	915	913	913	912	905	902	899	903	907	914	916	919	923	923	922	919	915	915	914
4*	914	914	914	915	917	915	912	908	904	900	896	895	899	906	911	918	922	923	922	919	916	914	913	913
5*	914	914	914	914	916	915	912	909	902	895	887	881	889	900	906	913	915	915	916	914	912	911	910	911
6	910	910	910	911	915	914	915	910	910	904	891	889	894	903	906	908	912	915	917	915	913	912	911	911
7	911	909	909	899	907	909	910	908	907	903	897	897	899	902	911	917	919	922	921	914	912	911	911	911
8	912	912	912	911	912	910	908	905	902	896	893	887	890	898	905	913	921	924	924	922	917	915	910	904
9	905	909	912	914	916	915	912	909	901	894	891	892	892	899	907	918	925	928	930	930	925	918	913	911
10**	902	902	895	902	904	909	907	901	898	900	893	893	902	912	920	928	936	953	953	931	926	912	912	905
11**	895	891	899	906	906	906	903	903	903	898	893	889	895	903	920	931	942	942	939	936	924	914	915	911
12	910	912	907	906	908	916	919	919	912	904	902	896	900	901	907	919	928	934	936	928	922	919	916	914
13	913	913	915	915	919	917	915	915	912	903	895	896	901	905	913	921	927	928	927	924	921	919	915	914
14*	913	913	914	915	917	918	915	918	918	907	901	896	897	905	911	913	913	915	917	918	917	915	915	913
15	910	911	911	911	914	915	908	905	903	899	901	900	896	893	899	908	918	925	927	926	921	917	915	913
16	910	908	908	905	903	903	900	902	901	899	896	891	898	905	909	914	921	926	929	930	927	921	917	915
17	914	912	913	915	916	916	916	914	906	898	889	888	894	897	899	906	912	916	918	915	914	914	912	911
18*	912	911	911	911	909	905	904	907	906	901	893	892	893	895	905	907	914	916	919	918	915	913	912	912
19	912	912	913	913	913	913	915	912	909	901	896	889	893	894	895	902	908	911	916	913	908	907	908	908
20	910	907	907	909	909	912	915	913	907	901	897	890	894	897	905	912	914	917	917	916	914	912	911	911
21	910	911	910	912	914	915	912	906	900	892	887	887	889	890	898	904	914	925	925	922	918	914	913	913
22**	912	910	910	912	915	914	906	901	891	886	888	882	888	896	906	915	920	924	927	929	919	915	915	914
23**	909	909	910	911	909	908	909	904	895	888	885	882	888	903	916	929	932	933	933	933	926	918	913	908
24	911	910	912	912	906	905	911	912	907	900	891	887	889	898	916	923	920	923	923	920	917	915	914	914
25	916	912	910	913	914	911	908	911	917	910	906	900	903	913	918	920	922	921	923	920	918	915	914	913
26*	914	913	912	915	918	916	915	915	914	909	904	895	892	895	904	912	916	924	923	919	915	914	912	912
27	913	912	913	916	920	922	920	919	911	900	894	897	906	908	910	913	917	922	924	923	921	917	915	913
28	911	911	910	913	917	913	912	916	910	908	902	902	905	913	928	948	962	960	958	950	940	926	921	917
29	917	917	917	919	924	925	922	920	913	906	899	893	895	900	908	915	918	922	919	915	915	914	914	912
30**	912	913	912	907	906	907	906	901	899	893	881	882	898	906	916	931	936	937	936	934	930	924	923	912
Mean	911	910	910	911	913	913	912	910	906	900	895	892	896	902	910	917	922	926	926	923	919	915	914	912
Mean*	913	913	913	914	915	914	912	911	909	902	896	892	894	900	908	913	916	919	919	918	915	913	912	912
Mean**	906	905	905	908	908	909	906	902	897	893	888	886	894	904	916	927	933	938	938	933	925	917	916	910

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE III.—HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
July.	42000 γ + Tabular Quantities (in γ).																								
1	909	902	896	900	899	897	896	899	897	901	897	897	902	907	909	913	915	920	921	921	916	914	913	912	
2	913	912	910	907	898	898	901	906	909	910	901	889	893	897	903	907	910	914	916	917	916	914	913	913	
3	913	911	911	911	914	914	911	909	908	901	893	891	888	893	901	905	908	912	911	909	911	910	910	911	
4	910	910	909	910	912	914	912	911	909	906	898	900	903	906	913	917	921	923	918	917	916	913	913	915	
5**	914	914	914	916	919	917	912	912	909	902	898	895	892	892	894	906	919	929	935	934	931	926	922	919	
6**	918	914	913	911	915	914	903	897	894	897	901	903	901	902	913	925	929	926	925	921	918	917	915	915	
7	910	910	914	915	916	915	916	913	903	902	898	899	897	902	910	918	920	924	929	924	921	916	916	915	
8	915	915	914	915	917	920	919	915	913	910	905	896	891	893	903	913	914	917	921	919	915	912	911	911	
9*	911	912	911	914	918	917	915	912	909	897	888	882	885	891	906	913	918	920	921	920	915	913	911	911	
10**	911	911	909	912	915	915	910	909	910	907	906	901	902	912	922	927	943	943	965	967	947	924	912	894	
11	908	913	916	913	908	906	907	912	910	908	904	902	907	906	915	916	927	931	932	930	927	920	918	915	
12	909	909	914	918	921	921	919	920	918	910	905	905	894	898	906	915	922	922	923	924	924	920	916	912	
13*	913	912	912	912	916	916	914	911	906	896	898	900	905	908	911	909	916	925	929	931	930	924	921	919	
14	920	919	918	919	919	921	920	924	920	915	906	897	894	892	897	908	919	927	935	939	936	925	920	914	
15**	895	882	870	865	862	867	879	889	895	897	900	898	902	907	917	924	931	949	961	956	951	939	929	888	
16**	901	909	914	919	920	921	920	919	914	912	906	898	907	926	956	988	996	991	986	973	960	939	932	928	
17	927	922	919	921	924	926	924	924	922	919	915	908	909	923	927	929	932	932	932	928	926	925	923	921	
18	922	923	922	922	922	922	922	922	923	918	909	899	902	911	918	924	927	928	928	924	923	922	920	917	
19*	913	914	916	917	918	920	919	917	913	912	906	899	903	910	917	922	925	923	923	920	919	917	917	915	
20	916	916	916	916	918	919	918	917	912	907	907	904	901	913	923	928	929	925	922	918	920	920	920	919	
21	916	910	913	917	919	919	921	918	907	897	897	896	899	912	917	924	934	936	936	930	924	919	918	917	
22	916	914	916	916	920	922	922	919	908	902	903	901	901	906	912	918	922	924	926	928	923	919	916	915	
23	914	913	913	915	918	922	920	916	907	903	901	902	901	905	917	928	927	928	925	920	916	913	913	913	
24	916	916	916	917	918	918	918	919	915	911	905	904	905	907	914	921	930	937	944	935	927	921	916	907	
25	909	913	915	913	916	916	915	917	912	905	899	902	903	901	911	920	927	929	927	922	921	920	919	912	
26	910	911	913	915	920	920	918	919	920	916	906	900	896	898	908	913	924	930	928	922	917	916	915	913	
27	911	910	911	914	918	918	919	922	918	911	904	899	905	908	919	923	923	922	919	920	918	916	914	913	
28*	914	914	914	916	918	919	919	918	915	907	900	895	898	898	906	914	918	920	920	919	916	914	913	911	
29*	913	912	913	914	916	918	915	914	907	905	903	899	898	895	901	909	913	915	916	915	914	914	913	912	
30	912	912	912	912	915	917	917	912	905	897	891	891	896	902	908	915	917	920	922	919	916	915	916	914	
31	914	913	912	909	911	908	906	903	899	893	890	888	890	897	902	907	913	917	921	918	916	914	913	911	
Mean	913	912	912	913	914	915	914	913	910	906	901	898	899	904	912	916	925	928	930	927	924	919	917	913	
Mean*	913	913	913	915	917	918	916	914	910	903	899	895	898	900	908	913	918	921	922	921	919	916	915	914	
Mean**	908	906	904	905	906	907	905	905	904	903	902	899	901	908	920	934	944	948	954	950	941	929	922	909	
August.	42000 γ + Tabular Quantities (in γ).																								
1**	904	896	896	903	912	915	918	920	921	918	912	908	906	908	932	944	951	954	946	943	930	925	905	896	
2	902	910	915	897	893	906	904	910	908	900	889	886	897	909	916	921	923	921	923	924	924	924	921	916	
3	918	919	918	918	919	918	912	908	900	895	890	890	899	906	914	922	922	920	919	919	919	919	918	918	
4	919	920	918	916	916	915	911	914	911	906	897	896	899	903	913	920	925	927	921	919	920	920	919	917	
5	909	898	888	890	910	915	912	908	901	899	895	892	897	904	914	917	926	928	924	919	917	917	918	917	
6	914	915	917	918	920	921	921	919	915	912	907	904	908	907	911	916	920	919	916	914	912	912	912	913	
7*	913	913	915	916	918	919	916	914	909	904	901	901	899	901	904	913	916	918	921	918	915	913	913	913	
8*	914	913	914	916	918	920	921	917	910	903	897	895	896	901	907	915	917	917	916	915	914	912	912	912	
9*	913	913	913	911	913	914	915	912	906	900	893	893	894	897	906	915	917	918	916	913	913	911	910	911	
10	909	909	909	910	913	914	917	918	914	909	897	894	899	900	902	908	915	913	911	911	911	910	907	906	
11**	906	904	904	905	908	909	905	904	903	897	888	885	889	890	893	902	906	912	916	924	922	917	912	910	
12	907	907	910	910	913	914	914	915	906	897	891	882	884	892	898	907	914	908	911	914	915	909	908	910	
13	908	904	904	906	909	911	911	912	910	906	901	897	894	900	911	916	914	915	914	912	911	911	911	909	
14**	908	907	906	908	910	910	911	911	909	904	896	895	898	899	911	934	964	983	999	978	956	925	923	910	
15**	883	883	900	911	919	923	924	926	915	912	907	910	911	908	918	926	934	937	937	930	925	920	915	914	
16	912	902	904	910	916	916	911	908	905	897	895	895	900	910	917	929	936	932	931	927	924	920	918	916	
17	911	909	907	909	913	916	918	917	916	907	899	892	895	904	912	917	923	921	922	919	919	918	914	913	
18**	903	898	891	894	901	899	906	911	913	903	888	901	908	913	921	931	934	930	926	927	922	920	917	912	
19	913	916	914	907	911	917	919	921	917	913	908	903	914	925	937	948	942	935	932	927	922	919	919	919	
20	919	913	912	915	920	917	920	916	915	908	903	902	905	913	925	933	934	929	924	920	917	917	916	916	
21	916	916	912	912	914	914	915	912	911	904	893	890	896	908	915	921	924	923	921	918	916	916	914	910	
22	909	910	913	916	919	919	919	918	909	904	902	903	911	916	923	928	927	924	921	918	914	912	911	912	
23	913	913	915	915	917	918	921	919	915	906	901	898	898	905	915	921	922	924	922	917	915	913	912	911	
24	911	911	912	913	915	915	915	915	911	907	904	900	902	910	913	922	926	925	919	916	915	914	912	912	
25*	912	912	912	912	913	916	916	916	912	907	898	893	892	900	912	917	918	918	915	914	913	912	911	911	
26	910	910	910	911	913	915	917	916	910	903	891	889	891	898	905	911	911	911	910	910	910	910	909	910	
27	909	907	907	907	909	910	911	913	914	907	901	901	901	904	912	917	921	922	919	916	914	912	911	910	
28*	909	908	908	907	910	912	913	911	907	900	895	890	888	893	902	908	909	910	911	910	910	910	910	909	
29	907	907	907	907	905	906	908	910	909	903	892	884	880	883	897	902	907	909	912	914	913	911	910	908	
30	908	908	906	904	904	906	907	905	901	898	893	889	886	892	900	906	908	908	908	907	908	908	908	908	
31	907	905	901	900	902	902	904	904	903	897	889	887	891	899	905	905	905	910	912	911	910	909	909	900	
Mean	910	908	908	909	912	914	914	914	910	904	897	895	898	903	912	919	923	923	922	920	918	915	913	911	
Mean*	912	912	912	912	914	916	916	914	909	903	897	894	894	898	906	914	915	916	916	914	913	912	911	911	
Mean**	901	898	899	904	910	911	913	914	912	907	898	900	902	904	915	927	938	943	945	940	931	921	914	908	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE III.—HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
September.	42000 γ + Tabular Quantities (in γ)																								
1	895	899	902	904	906	907	909	909	903	895	890	892	894	900	905	908	908	909	908	909	909	911	908	906	
2	907	898	904	907	908	907	908	907	902	897	897	894	893	901	908	913	913	913	908	911	909	907	908	909	
3*	909	909	909	909	909	910	910	913	909	898	887	881	887	898	906	911	910	909	905	907	907	907	907	907	
4*	908	908	908	909	909	909	910	909	904	895	892	891	890	892	898	903	908	909	908	908	908	907	906	906	
5*	907	907	909	909	910	912	912	909	904	899	894	891	892	900	909	917	918	914	908	908	908	908	908	907	
6	907	908	908	908	909	910	912	912	906	897	894	894	898	902	907	910	915	909	907	909	910	910	908	908	
7**	904	895	879	874	880	890	892	894	892	885	884	886	889	899	910	922	940	940	936	931	927	911	911	901	
8	903	904	910	912	913	915	913	908	902	897	894	893	894	897	904	910	912	913	911	912	913	913	912	908	
9	900	901	907	909	903	896	904	908	905	896	885	884	886	896	905	911	913	913	911	911	913	914	903	898	
10**	897	895	883	892	904	908	900	894	897	898	901	904	909	917	917	925	933	946	936	929	924	912	913	911	
11**	905	888	892	898	905	907	913	914	911	911	912	911	912	914	929	936	945	940	929	923	921	918	912	909	
12	910	912	913	913	913	915	912	915	911	907	901	900	903	905	912	936	947	943	938	933	925	918	915	899	
13	897	898	894	898	902	897	908	912	908	904	902	900	909	915	918	923	929	928	935	935	929	924	919	915	
14**	905	890	893	898	905	906	902	900	900	895	901	900	908	917	935	949	955	949	944	937	915	912	901	896	
15	902	897	888	902	909	912	918	915	911	905	901	905	905	912	914	917	925	929	931	923	912	910	909	912	
16	911	903	904	906	907	907	911	910	908	900	903	903	907	909	915	930	941	928	926	925	921	919	912	905	
17	905	910	913	913	910	912	915	916	912	908	906	901	906	911	917	919	919	919	917	919	916	917	916	911	
18	913	915	915	914	913	912	912	912	908	905	898	891	898	909	913	916	919	922	924	925	923	916	913	910	
19*	914	914	913	913	914	915	916	917	913	908	905	900	904	911	915	919	918	918	918	917	915	915	915	915	
20	915	916	916	916	916	915	915	914	910	908	902	898	904	905	908	911	914	916	915	915	915	915	914	913	
21	912	909	906	911	913	912	914	916	914	906	899	898	904	906	913	919	927	932	932	927	921	919	912	910	
22**	908	880	878	875	867	865	870	880	888	892	889	900	913	921	937	934	920	957	949	942	936	923	913	914	
23	915	916	917	918	920	922	924	922	918	909	896	892	897	906	921	926	929	928	923	923	921	919	915	912	
24	915	915	915	912	906	906	911	912	908	905	899	896	899	903	906	912	916	916	916	916	915	913	913	912	
25	908	908	911	912	913	913	914	916	911	907	902	899	902	900	902	913	916	919	919	918	917	916	916	911	
26	912	910	912	913	914	914	915	915	913	907	903	899	900	899	904	914	920	921	921	923	923	916	916	916	
27	915	912	910	906	908	908	912	915	915	908	900	900	903	910	916	925	924	924	925	930	916	918	919	916	
28	918	918	914	914	915	915	917	918	914	908	904	900	903	907	911	914	919	918	918	918	918	918	917	917	
29*	918	918	917	915	915	916	918	919	918	914	910	909	910	911	913	915	915	914	915	915	916	916	915	916	
30	916	916	915	913	913	913	914	917	917	913	904	902	903	907	911	913	915	916	916	918	917	916	915	913	
Mean	908	906	905	906	908	908	910	911	908	903	899	897	901	906	913	919	923	924	922	921	917	915	912	909	
Mean*	911	911	911	911	911	912	913	913	910	903	898	894	897	902	908	913	914	913	911	911	911	911	910	910	
Mean**	904	890	885	887	892	895	895	896	898	896	897	900	906	914	926	933	939	946	939	932	925	915	910	906	
October.	42000 γ + Tabular Quantities (in γ).																								
1*	913	915	916	916	916	916	917	920	917	910	901	892	892	897	900	907	910	910	911	911	911	910	910	911	
2*	907	907	907	907	907	906	907	908	907	905	899	890	890	894	899	906	911	912	913	915	916	917	918	916	
3	914	912	911	911	911	904	906	906	901	896	890	887	890	901	906	913	915	916	918	915	915	915	915	916	
4	914	915	915	908	912	913	914	914	909	902	892	890	891	897	907	917	919	921	922	922	918	919	907	900	
5	903	909	911	912	914	913	913	914	909	902	896	895	895	901	907	914	917	916	916	915	914	912	912	912	
6	912	913	912	912	912	911	910	910	907	902	896	891	891	892	899	907	914	916	915	914	913	912	911	910	
7**	910	909	911	910	909	908	909	911	909	903	890	888	899	913	926	937	950	948	951	939	918	918	897	902	
8**	898	895	897	896	896	902	908	919	919	921	921	921	929	935	940	947	945	944	932	924	919	907	914	897	
9	897	904	908	913	913	915	918	922	920	922	918	919	938	940	945	940	935	931	931	928	921	919	909	911	
10	909	907	907	910	913	915	916	921	922	917	914	910	914	917	918	922	925	928	925	924	914	914	914	914	
11	912	912	910	903	909	913	915	918	915	908	905	905	905	906	910	916	923	923	924	923	918	916	917	917	
12	917	915	907	900	898	900	905	910	915	914	910	904	913	919	925	930	934	933	935	932	929	922	920	918	
13	914	904	896	892	888	884	896	905	907	905	900	908	910	921	931	937	940	934	929	926	925	924	921	920	
14	920	918	914	912	913	912	914	915	915	913	908	905	907	912	920	929	927	925	923	922	921	920	920	918	
15*	918	918	917	916	916	916	916	918	919	916	908	907	909	915	918	921	922	921	920	920	919	920	919	918	
16**	918	918	918	916	915	915	914	916	918	914	907	900	903	915	918	929	962	975	974	967	945	925	918	910	
17**	891	888	890	889	905	913	918	922	921	918	915	916	919	921	923	925	925	920	923	942	949	937	915	915	
18	916	904	908	904	904	911	916	920	920	919	916	916	919	926	941	952	953	950	944	935	931	928	912	901	
19	901	893	875	878	876	878	885	894	908	911	910	911	920	927	934	940	946	951	948	942	936	933	932	929	
20	928	925	926	923	923	920	919	919	918	914	908	908	917	919	930	934	933	936	933	932	930	926	923	922	
21	922	919	910	914	918	919	917	919	918	917	912	909	912	918	924	929	930	928	926	925	926	923	920	919	
22	919	919	919	920	919	919	918	919	918	914	914	912	913	915	917	923	925	924	924	921	923	926	921	923	
23	914	913	917	918	919	920	919	921	921	920	914	912	909	908	911	918	924	925	926	923	924	924	923	920	
24	915	912	910	914	917	919	919	920	920	913	906	905	911	916	920	927	928	929	930	931	926	926	926	918	
25	912	914	917	917	916	919	920	922	921	916	909	903	908	914	920	925	925	925	924	924	924	918	918	919	
26*	918	917	916	918	919	920	920	922	924	919	914	911	916	917	919	922	922	922	921	920	920	920	920	920	
27*	920	917	916	916	916	917	919	921	923	919	916	914	917	919	922	922	923	923	924	923	922	922	922	921	
28	921	921	920	919	919	919	918	919	921	919	914	911	916	916	917	919	916	918	917	919	919	919	923	922	
29	923	913	915	917	917	917	916	916	916	915	912	912	915	920	926	925	925	925	924	922	921	920	922	924	
30**	924	922	920	920	917	917	917	917	917	914	910	908	913	922	932	942	942	940	938	940	925	931	923	923	
31	924	908	910	917	919	918	917	916	917	917	916	917	920	925	930	932	929	928	928	929	929	917	919	921	
Mean	914	912	911	910	911	912	913	916	916	913	908	906	910	915	921	926	929	929	928	927	923	921	918	916	
Mean*	915	915	914	915	915	915	916	918	918	914	908	903	905	908	912	916	918	918	918	918	918	918	918	917	
Mean**	908	906	907	906	908	911	913	917	917	914	909	907	913	921	928	936	945	945	944	942	931	924	913	909	

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

TABLE III.—HOURLY MEANS OF VERTICAL COMPONENT OF MAGNETIC FORCE AT ABINGER—*continued.*

	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Noon	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	24h
November.	42000 γ + Tabular Quantities (in γ).																								
1	922	920	920	920	920	918	916	915	916	908	905	904	913	917	922	924	924	922	921	921	925	925	925	928
2**	917	919	911	914	914	915	913	913	914	908	908	913	917	925	940	940	935	935	937	938	937	915	921	911
3**	902	914	903	892	895	895	898	895	908	908	914	927	952	963	966	989	974	965	948	938	927	924	912	905
4**	915	919	916	910	914	917	924	925	927	928	927	925	927	931	936	951	956	953	945	940	936	931	917	913
5**	916	921	920	920	921	922	924	925	921	920	921	918	929	930	935	945	945	946	937	935	929	922	924	921
6	913	911	915	916	919	922	925	929	929	927	925	929	931	936	942	941	942	940	935	934	933	928	927	920
7	914	918	922	923	924	926	925	928	929	923	920	913	920	930	937	944	959	946	943	947	943	936	924	928
8	929	927	928	928	927	929	927	927	926	922	917	915	917	921	926	930	932	933	933	932	931	930	926	924
9	922	922	921	921	920	921	919	921	929	927	922	921	931	938	951	954	951	944	941	938	935	933	932	931
10*	930	930	930	930	930	930	930	930	932	930	930	928	928	927	929	929	929	930	929	929	928	927	927	926
11*	925	925	925	925	925	925	926	927	925	922	917	915	916	917	921	922	925	925	924	924	924	925	925	924
12	925	924	923	923	922	921	921	922	925	922	920	919	920	922	923	922	924	925	926	926	926	926	925	926
13	920	920	920	922	922	922	920	919	920	915	909	910	916	921	924	925	927	927	927	925	925	928	928	923
14	921	921	921	922	922	922	920	920	920	916	911	914	917	922	924	926	929	929	929	926	926	927	927	925
15	922	917	910	914	917	917	916	915	915	914	916	919	924	929	930	932	936	934	930	932	929	927	925	917
16**	908	913	915	915	915	908	903	908	908	911	916	920	929	940	948	976	959	959	962	960	931	929	937	933
17	932	929	928	928	928	927	926	925	923	918	914	914	917	926	929	930	929	929	928	927	926	926	926	926
18*	927	926	926	926	925	926	924	925	925	921	914	916	921	928	930	933	927	925	929	929	930	928	928	927
19	927	927	928	928	927	929	927	925	922	920	919	920	926	929	931	934	936	935	934	932	931	930	929	928
20	925	923	925	925	925	927	925	923	922	916	916	918	921	925	933	941	947	957	974	978	968	957	947	943
21	939	936	935	933	933	933	932	931	930	924	921	921	923	925	926	928	930	930	930	933	938	933	929	928
22	926	927	926	925	926	926	925	924	924	922	917	915	917	921	923	926	928	928	930	934	933	931	930	928
23	924	921	924	924	926	926	926	926	927	925	919	918	919	923	926	927	929	929	928	928	929	929	928	928
24*	926	925	925	925	925	925	925	925	925	923	923	923	921	922	925	925	927	927	927	929	927	925	925	924
25*	925	924	924	923	923	924	924	924	925	923	922	922	922	924	925	931	932	930	927	926	925	925	925	924
26	925	924	923	922	921	923	921	921	924	922	920	919	920	923	923	924	924	925	925	926	931	930	930	930
27	926	922	921	923	925	927	926	925	924	920	921	923	925	927	930	932	935	938	940	937	936	934	930	931
28	929	926	924	923	923	923	923	923	923	920	916	913	918	922	923	925	929	929	930	933	934	932	931	930
29	928	924	924	922	922	921	920	920	920	917	916	915	918	924	924	927	933	932	931	930	930	928	926	924
30	926	925	925	924	924	924	924	924	924	922	922	921	922	927	927	931	934	935	932	931	928	922	922	924
Mean	923	923	922	922	922	922	922	922	923	920	918	918	923	927	931	936	936	935	934	934	932	929	927	925
Mean*	927	926	926	926	926	926	926	926	926	924	921	921	922	924	926	928	928	927	927	927	927	926	926	925
Mean**	912	917	913	910	912	911	912	913	916	915	917	921	931	938	945	960	954	952	946	942	932	924	922	917
December.	42000 γ + Tabular Quantities (in γ).																								
1*	924	926	926	927	927	926	925	924	922	922	920	918	920	924	927	928	928	929	927	926	925	925	924	925
2*	925	924	924	925	924	924	923	923	922	920	919	919	921	924	931	932	932	932	929	929	927	925	925	925
3	924	924	924	925	924	925	923	923	922	921	921	921	920	923	932	933	938	941	938	934	936	933	939	912
4**	916	906	895	897	899	909	920	925	931	938	943	953	958	968	977	993	977	970	971	960	948	945	942	932
5**	918	904	894	893	893	903	915	921	927	928	939	945	965	972	976	982	973	968	961	958	950	945	940	936
6	925	910	898	897	894	903	912	919	925	929	931	935	940	952	959	974	970	964	960	957	944	942	940	940
7	938	928	928	931	931	931	932	934	934	938	938	936	938	948	957	955	950	945	942	939	938	936	936	935
8	935	934	931	928	922	922	922	924	927	925	925	925	927	937	939	944	946	954	945	939	937	936	937	935
9	933	933	933	933	932	930	930	929	928	928	930	932	933	936	936	940	940	940	940	940	938	940	935	928
10	928	928	927	927	928	930	932	932	930	930	925	917	919	928	936	940	948	945	945	940	937	936	933	929
11	930	927	914	918	921	920	918	922	921	919	921	921	923	928	931	934	938	940	951	951	945	945	940	936
12	924	908	914	918	906	906	918	925	926	928	929	929	929	934	935	934	936	935	935	938	940	938	936	934
13	933	929	927	926	925	926	925	927	926	930	929	928	929	934	936	935	935	934	934	932	932	932	932	932
14	932	932	932	931	931	931	932	932	931	930	930	927	930	935	938	936	935	935	937	937	937	935	935	933
15	930	927	930	929	930	928	929	928	927	927	930	930	932	937	939	938	937	937	935	932	932	931	932	932
16**	931	931	931	929	928	928	928	928	926	925	926	928	931	944	959	977	997	1004	1011	990	979	965	958	954
17**	951	945	944	942	940	939	937	935	932	929	929	926	927	930	932	937	938	938	942	957	974	966	954	952
18	952	950	945	940	930	928	930	931	928	928	928	926	926	930	935	935	939	939	940	941	940	939	936	935
19*	936	936	935	936	934	934	934	933	932	932	933	931	937	941	940	937	938	937	936	935	933	931	931	931
20*	931	929	930	931	931	931	931	930	927	924	921	915	919	925	928	931	933	934	933	932	932	930	930	928
21*	929	928	928	928	929	929	929	928	926	924	920	916	918	923	927	928	930	930	929	929	929	928	927	926
22**	924	924	920	921	920	916	917	918	921	922	917	912	912	928	934	936	943	956	962	960	955	941	934	916
23	919	927	929	928	925	925	928	930	932	932	930	928	925	929	933	935	935	937	937	939	945	942	937	935
24	933	931	931	931	931	932	932	932	931	931	929	925	923	927	929	933	932	931	933	933	933	935	935	928
25	930	930	929	930	930	928	929	929	929	927	930	930	927	928	930	930	928	929	932	934	934	933	932	930
26	931	930	929	929	926	928	928	927	928	926	926	925	924	929	931	930	929	929	929	931	931	931	931	930
27	931	930	928	927	927	927	927	927	926	925	925	928	927	927	931	932	932	932	932	933	934	932	932	931
28	930	930	929	927	927	928	927	927	927	924	923	926	927	929	930	931	930	930	932	932	933	933	932	932
29	931	930	929	927	925	925	925	925	924	921	923	927	925	926	930	933	930	928	929	932	933	934	934	933
30	935	933	928	928	928	928	928	926	928	924	925	925	926	931	935	936	936	933	933	932	931	931	930	931
31	931	931	928	928	927	927	927	926	926	927	924	918	918	926	929	936	933	932	938	940	938	936	934	933
Mean	930	928	926	925	924	925	926	927	927	927	927	927	928	934	938	941	942	942	942	941	939	937	935	932
Mean*	929	929	929	929	929	929	928	928	926	924	923	920	923	927	931	931	932	932	931	930	929	928	927	927
Mean**	928	922	917	916	916	919	924	925	927	928	931	933	939	948	956	965	966	967	969	965	961	952	946	938

* Denotes an International Quiet Day. ** Denotes an International Disturbed Day.

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

Date.	DECLINATION WEST.						HORIZONTAL FORCE.						VERTICAL FORCE.					
	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.
		G.M.T.			G.M.T.			G.M.T.			G.M.T.			G.M.T.			G.M.T.	
JAN.	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	41·3	13 8	44·7	39·1	21 26	5·6	568	18 22	580	554	12 40	26	918	14 14	925	910	11 38	15
2	42·0	12 54	44·9	40·3	1 23	4·6	573	22 23	583	556	12 6	27	918	14 50	925	911	11 44	14
3	41·8	17 34	45·9	36·4	22 32	9·5	568	17 20	588	527	21 50	61	921	22 3	937	912	11 38	25
4	41·1	13 5	45·8	32·8	2 35	13·0	563	7 9	585	545	11 14	40	920	0 0	930	909	11 10	21
5	41·7	18 6	48·9	30·4	21 22	18·5	555	5 37	591	485	18 57	106	924	19 37	957	906	11 28	51
6	41·2	13 0	44·7	33·9	18 31	10·8	552	0 20	572	527	18 29	45	923	19 4	935	915	12 24	20
7	41·4	13 8	44·8	38·7	22 59	6·1	560	23 9	569	541	12 18	28	921	8 14	925	911	11 57	14
8	41·0	13 40	46·8	21·3	23 45	25·5	557	21 37	577	514	23 46	63	920	15 30	932	905	23 43	27
9	38·4	13 4	47·6	22·9	0 50	24·7	541	22 17	578	478	1 4	100	924	18 47	949	884	0 57	65
10	39·9	12 38	46·8	31·9	21 36	14·9	544	21 38	583	514	16 16	69	926	16 45	944	917	9 1	27
11	40·1	11 51	45·5	29·8	0 55	15·7	556	0 59	598	525	8 10	73	918	0 5	927	904	5 49	23
12	40·7	12 37	44·3	37·5	9 5	6·8	561	20 20	571	541	10 7	30	922	14 20	930	912	11 40	18
13	41·4	12 50	46·9	37·9	21 46	9·0	560	21 49	585	529	11 50	56	920	16 19	928	909	12 14	19
14	40·9	12 37	47·9	28·1	20 5	19·8	556	0 55	584	498	15 30	86	924	15 47	946	907	10 5	39
15	40·7	12 49	45·8	36·6	17 11	9·2	558	6 49	577	538	13 25	39	922	15 48	932	907	11 40	25
16	41·3	12 56	46·5	37·6	21 20	8·9	562	23 25	580	540	13 33	40	920	16 44	932	902	12 4	30
17	40·9	13 5	44·7	37·8	8 54	6·9	566	8 20	578	548	12 25	30	919	18 14	926	907	12 2	19
18	41·2	12 55	46·1	39·0	8 47	7·1	567	6 17	582	545	11 44	37	918	16 52	924	908	12 38	16
19	41·1	13 24	44·4	39·0	8 24	5·4	569	20 38	579	554	12 20	25	917	14 50	923	906	11 37	17
20	41·0	12 37	45·1	36·4	22 50	8·7	573	18 7	587	547	11 25	40	914	23 20	926	901	12 0	25
21	41·3	12 57	48·5	38·6	6 54	9·9	565	6 50	576	549	13 23	27	919	18 51	928	909	11 19	19
22	40·9	12 58	49·3	34·9	1 45	14·4	562	1 50	589	540	10 47	49	919	22 4	930	904	11 57	26
23	40·7	13 27	44·4	37·2	8 27	7·2	563	17 3	576	545	10 54	31	921	15 28	928	910	8 56	18
24	40·7	13 37	46·2	36·6	22 24	9·6	565	19 30	578	537	11 20	41	922	14 30	930	916	5 53	14
25	40·9	13 4	44·9	37·0	9 11	7·9	568	7 29	577	551	10 3	26	917	19 13	924	901	12 20	23
26	41·1	13 50	45·5	36·9	22 16	8·6	566	18 53	579	544	21 14	35	917	21 26	926	906	11 39	20
27	40·5	12 59	43·9	37·8	10 4	6·1	569	20 2	578	550	11 32	28	915	0 30	923	902	12 14	21
28	40·9	12 55	46·2	37·0	22 13	9·2	568	5 4	581	547	11 2	34	915	17 21	925	904	12 5	21
29	40·9	13 3	47·9	37·9	23 17	10·0	564	3 50	579	530	19 48	49	917	20 16	932	904	11 59	28
30	40·5	13 17	44·9	36·4	21 50	8·5	564	4 50	576	541	10 32	35	917	0 2	924	910	12 37	14
31	41·3	13 16	46·9	37·9	8 42	9·0	565	3 47	577	540	10 36	37	918	15 4	924	911	12 17	13
Mean	40·9	—	46·0	35·3	—	10·7	562	—	580	535	—	45	920	—	931	907	—	24
No. of Days used.	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31
FEB.	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	40·5	13 1	47·3	35·8	23 50	11·5	568	1 24	583	545	10 4	38	918	14 44	923	908	12 39	15
2	41·3	13 17	47·6	37·5	0 0	10·1	567	20 39	580	543	12 42	37	919	15 46	931	910	12 22	21
3	40·9	12 55	46·2	36·8	8 47	9·4	565	4 55	581	534	10 59	47	918	9 4	924	909	12 17	15
4	41·2	13 30	46·6	37·4	8 34	9·2	569	19 16	579	540	11 48	39	917	14 44	928	913	23 55	15
5	41·0	13 44	46·6	36·8	8 41	9·8	570	7 7	582	524	11 50	58	911	20 17	917	898	11 40	19
6	40·6	15 51	49·4	21·3	23 0	28·1	562	6 50	586	520	16 24	66	918	18 52	942	902	10 25	40
7	39·6	12 47	45·3	34·7	21 54	10·6	559	22 0	590	517	10 58	73	919	0 4	925	907	2 38	18
8	40·9	20 24	46·9	35·1	24 0	11·8	560	22 34	587	504	20 54	83	923	21 0	957	912	11 43	45
9	40·0	13 35	49·3	25·5	17 55	23·8	554	18 11	578	509	17 50	69	924	15 49	941	912	11 3	29
10	40·3	14 36	47·0	29·4	16 23	17·6	554	1 35	585	498	11 48	87	922	16 34	949	906	11 28	43
11	40·2	13 20	46·9	35·5	8 53	11·4	557	23 3	585	522	11 40	63	923	16 57	939	909	11 1	30
12	40·4	12 54	45·6	36·2	19 47	9·4	559	0 12	578	533	10 49	45	918	16 0	926	905	12 38	21
13	40·9	14 14	46·1	38·1	3 7	8·0	565	0 30	582	540	11 37	42	914	18 50	921	902	10 19	19
14	40·1	14 24	43·3	36·0	9 16	7·3	566	5 53	580	546	10 31	34	914	17 6	920	905	14 19	15
15	40·5	13 57	45·4	36·4	9 12	9·0	570	7 7	584	550	10 50	34	912	8 13	917	901	11 40	16
16	40·7	16 2	46·7	30·7	23 46	16·0	573	23 58	647	542	17 22	105	913	18 58	926	894	12 31	32
17	38·5	14 58	53·2	16·8	17 4	36·4	531	0 0	646	422	21 42	224	925	17 4	1022	876	22 53	146
18	37·4	14 28	44·7	18·5	1 10	26·2	524	3 17	587	490	0 38	97	920	21 16	944	859	3 52	85
19	39·2	14 19	48·8	28·5	0 37	20·3	535	7 33	566	473	16 10	93	925	16 42	955	897	5 13	58
20	39·1	13 59	45·0	33·0	23 18	12·0	545	0 50	575	516	10 20	59	925	20 27	936	912	13 20	24
21	38·8	14 46	45·4	32·4	23 4	13·0	551	23 7	586	520	12 2	66	922	22 36	936	912	14 20	24
22	38·9	13 44	49·0	25·9	23 25	23·1	548	20 44	589	501	16 0	88	927	16 38	962	903	11 20	59
23	38·2	13 6	44·6	31·0	0 0	13·6	554	20 46	576	529	6 12	47	923	15 30	931	914	13 36	17
24	40·1	13 16	45·7	36·3	7 58	9·4	558	0 16	584	535	10 50	49	922	17 11	932	905	12 16	27
25	39·9	12 5	45·1	31·0	23 22	14·1	—	—	—	—	—	—	923	20 18	944	902	12 37	42
26	38·8	13 38	44·9	25·0	22 27	19·9	555	20 3	596	514	23 40	82	922	19 23	933	893	23 46	40
27	36·3	18 49	67·5	-6·8	20 30	74·3	525	20 37	585	298	22 2	287	929	20 16	1037	795	21 58	242
28	40·0	12 9	49·5	9·5	0 46	40·0	501	21 4	547	310	0 40	237	931	14 17	1018	804	1 14	214
Mean	39·8	—	47·5	29·4	—	18·1	553	—	586	503	—	83	921	—	944	895	—	49
No. of Days used.	28	—	28	28	—	28	27	—	27	27	—	27	28	—	28	28	—	28

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

Date.	DECLINATION WEST.						HORIZONTAL FORCE.						VERTICAL FORCE.					
	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.
MAR.	12°+ ′	G.M.T. h m	12°+ ′	12°+ ′	G.M.T. h m	′	18000γ+	G.M.T. h m	18000γ+	18000γ+	G.M.T. h m	γ	42000γ+	G.M.T. h m	42000γ+	42000γ+	G.M.T. h m	γ
1	39·3	14 50	47·6	33·1	22 20	14·5	535	18 46	557	503	9 8	54	938	16 10	952	926	12 36	26
2	39·9	13 28	47·6	33·8	19 8	13·8	542	7 2	560	509	11 49	51	930	19 18	942	910	11 38	32
3	39·4	12 41	46·3	31·0	18 25	15·3	550	20 34	570	505	18 10	65	928	18 34	954	907	11 40	47
4	39·8	13 19	44·6	35·9	0 27	8·7	556	21 50	569	543	15 42	26	925	16 24	935	910	11 22	25
5	39·9	12 4	53·2	35·0	7 57	18·2	560	5 27	591	515	12 31	76	923	14 43	931	908	12 7	23
6	39·6	14 7	45·4	35·7	20 14	9·7	556	23 42	582	535	10 5	47	926	15 8	935	913	10 47	22
7	39·4	12 44	47·7	31·6	23 43	16·1	553	23 14	575	532	9 40	43	929	20 19	946	911	11 42	35
8	39·3	12 59	52·2	24·2	19 46	28·0	553	5 49	587	509	15 37	78	928	16 8	964	900	11 18	64
9	40·4	12 40	48·2	33·4	21 1	14·8	555	21 12	582	527	9 54	55	929	17 5	944	915	12 12	29
10	40·7	12 29	50·0	35·7	8 26	14·3	561	4 4	580	537	10 22	43	923	17 2	936	900	12 42	36
11	41·3	13 59	52·7	30·4	21 57	22·3	557	13 59	641	498	13 56	143	931	17 32	964	909	13 54	55
12	41·7	5 44	63·1	15·6	20 9	47·5	481	20 16	598	335	8 34	263	935	15 37	1085	795	6 44	290
13	37·4	14 30	48·0	25·0	0 0	23·0	519	22 15	592	464	0 32	128	933	16 55	952	909	4 46	43
14	39·6	13 45	48·1	34·5	22 59	13·6	533	22 6	594	504	15 30	90	935	16 6	956	915	11 0	41
15	40·1	15 2	54·4	24·8	20 30	29·6	535	23 38	595	473	22 16	122	944	17 8	938	905	24 0	33
16	39·6	12 10	49·7	23·3	0 40	26·4	520	1 59	571	—	—	—	925	17 35	972	824	3 19	148
17	38·3	14 54	46·8	31·7	0 41	15·1	531	20 3	576	505	10 56	71	928	17 2	963	901	3 55	62
18	40·0	13 47	49·2	33·2	9 5	16·0	541	23 22	558	508	10 34	50	933	18 6	958	908	11 20	50
19	39·0	12 44	46·9	27·5	21 45	19·4	547	21 55	570	524	10 53	46	933	18 55	950	913	11 38	37
20	38·6	15 37	48·9	26·8	19 26	22·1	553	23 38	597	516	15 54	81	927	19 37	953	904	12 2	49
21	37·9	12 16	50·1	25·1	2 46	25·0	534	23 10	589	480	12 44	109	920	17 30	960	883	3 48	77
22	39·3	13 22	48·5	33·3	17 35	15·2	539	21 30	571	492	13 50	79	925	17 40	951	910	12 2	41
23	39·3	13 36	48·6	33·0	7 28	15·6	547	21 31	588	518	10 17	70	925	17 0	935	906	11 34	29
24	39·3	14 9	49·2	33·9	20 6	15·3	550	20 11	586	500	11 24	86	924	16 54	953	900	11 20	53
25	39·7	12 50	47·7	33·4	8 43	14·3	550	22 47	585	517	10 14	68	932	15 15	969	926	23 55	43
26	39·0	12 40	46·0	32·0	23 45	14·0	559	22 39	611	520	10 35	91	929	16 10	939	908	11 22	31
27	39·2	12 15	48·4	32·5	0 1	15·9	556	17 20	585	525	10 0	60	923	20 20	938	896	11 40	42
28	38·9	12 9	46·9	29·4	22 16	17·5	562	22 34	610	526	10 59	84	921	17 28	938	898	11 4	40
29	39·2	13 20	47·7	31·7	8 15	16·0	554	3 57	574	520	11 6	54	920	17 30	941	904	12 27	37
30	39·5	13 1	46·5	33·2	8 25	13·3	556	1 34	583	516	11 14	67	923	7 6	934	905	10 54	29
31	39·3	13 7	46·1	33·4	8 20	12·7	562	22 10	612	525	10 58	87	920	7 2	928	902	11 40	26
Mean	39·5	—	48·9	30·7	—	18·2	545	—	583	506	—	77	928	—	953	901	—	52
No. of Days used.	31	—	31	31	—	31	31	—	31	30	—	30	31	—	31	31	—	31
APRIL	12°+ ′	h m	12°+ ′	12°+ ′	h m	′	18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
1	39·5	13 10	47·2	35·0	7 34	12·2	567	23 10	602	539	10 43	63	916	17 0	931	897	11 25	34
2	39·1	14 9	47·8	32·9	8 7	14·9	564	0 2	586	528	11 8	58	915	21 10	925	889	12 3	36
3	39·6	13 10	47·7	33·9	7 12	13·8	560	22 24	586	536	11 35	50	915	17 53	933	889	11 40	44
4	40·3	12 11	54·6	32·3	7 30	22·3	567	12 11	591	519	13 59	72	913	18 7	935	883	11 57	52
5	38·2	14 15	45·6	31·7	8 17	13·9	560	23 33	600	518	11 12	82	917	17 42	935	893	10 36	42
6	38·3	13 7	46·0	31·8	7 56	14·2	559	0 1	589	526	10 40	63	915	15 40	924	902	12 20	22
7	38·7	13 18	46·2	32·5	7 33	13·7	560	21 53	588	522	11 2	66	916	16 52	921	903	12 16	18
8	38·9	13 17	45·9	32·0	8 16	13·9	559	1 14	583	522	12 40	61	914	18 26	923	892	11 22	31
9	38·0	12 58	45·2	31·2	8 12	14·0	563	2 4	584	532	11 1	52	913	6 59	921	890	11 36	31
10	38·1	12 55	47·7	31·4	8 52	16·3	564	5 40	578	531	13 27	47	914	17 23	924	883	12 2	41
11	38·2	14 3	47·7	30·2	8 13	17·5	569	1 28	608	530	10 24	78	909	17 6	921	881	11 34	40
12	37·5	14 18	46·5	29·4	8 41	17·1	564	21 49	589	524	10 40	65	911	18 15	923	886	12 43	37
13	37·3	14 2	46·7	30·6	8 12	16·1	563	4 57	589	520	10 58	69	913	17 26	931	891	12 57	40
14	38·0	12 49	45·4	31·0	8 40	14·4	567	21 26	587	534	11 21	53	911	18 42	921	885	12 21	36
15	38·1	13 46	46·6	30·8	8 44	15·8	570	17 3	617	527	11 38	90	911	21 0	924	885	11 20	39
16	36·1	13 44	48·3	24·9	2 4	23·4	549	4 20	619	493	12 25	126	910	17 21	961	861	5 4	100
17	37·5	12 55	47·0	29·2	21 53	17·8	549	22 7	603	495	10 3	108	913	18 10	943	880	1 42	63
18	37·8	12 43	45·3	32·3	0 15	13·0	555	23 39	591	526	9 12	65	913	18 34	928	890	11 20	38
19	37·2	13 59	44·9	30·9	8 3	14·0	556	0 2	587	536	12 34	51	913	17 54	929	893	12 1	36
20	37·3	13 33	44·8	31·5	8 22	13·3	559	23 22	579	533	10 11	46	915	8 20	921	893	11 40	28
21	36·4	14 13	42·9	30·1	21 43	12·8	559	4 14	592	528	10 27	64	912	19 59	926	895	11 24	31
22	36·0	13 43	42·5	30·1	2 21	12·4	557	16 46	574	538	9 39	36	911	18 3	922	891	12 43	31
23	37·6	13 17	44·3	31·8	7 44	12·5	561	17 28	582	539	11 1	43	911	18 8	922	880	11 40	42
24	37·4	13 37	44·9	31·9	7 53	13·0	564	16 24	583	534	10 45	49	913	17 51	926	892	12 30	34
25	37·0	13 59	44·5	32·5	7 11	12·0	568	23 39	606	540	11 26	66	912	19 15	924	887	12 1	37
26	37·3	13 21	45·7	30·8	8 10	14·9	568	0 0	588	542	10 20	46	911	18 8	925	882	11 58	43
27	37·0	13 35	45·3	30·7	7 26	14·6	567	21 7	596	530	12 30	66	911	18 22	920	888	12 19	32
28	37·2	14 17	48·8	30·2	7 53	18·6	568	1 57	599	531	11 49	68	911	18 0	928	889	11 47	39
29	36·4	13 7	47·2	27·3	21 4	19·9	567	17 10	601	534	11 5	67	914	18 30	941	885	11 21	56
30	36·9	15 38	49·9	28·7	8 1	21·2	564	15 37	623	524	16 36	99	913	18 47	930	885	12 42	45
Mean	37·8	—	46·5	31·0	—	15·5	562	—	593	528	—	65	913	—	928	888	—	40
No. of Days used.	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30

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

Date.	Declination West.						Horizontal Force.						Vertical Force.					
	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.
MAY	12°+	G.M.T. h m	12°+	12°+	G.M.T. h m		18000γ+	G.M.T. h m	18000γ+	18000γ+	G.M.T. h m	γ	42000γ+	G.M.T. h m	42000γ+	42000γ+	G.M.T. h m	γ
	′		′	′		′												
1	37·0	12 59	44·3	29·8	7 40	14·5	570	0 43	610	539	12 10	71	911	18 48	925	882	11 58	43
2	37·4	2 38	43·0	32·2	9 7	10·8	568	17 58	592	530	10 30	62	913	17 53	927	894	11 57	33
3	37·1	12 17	42·6	32·3	9 12	10·3	570	23 50	606	524	12 28	82	917	17 52	923	884	12 26	39
4	37·4	13 19	42·4	32·1	5 20	10·3	565	24 0	599	522	9 12	77	909	18 39	918	893	11 32	25
5	36·8	12 22	45·9	31·2	6 27	14·7	562	0 2	601	536	11 18	65	910	18 2	920	890	11 57	30
6	37·3	12 45	46·2	30·9	7 53	15·3	567	20 13	591	534	12 36	57	908	18 30	919	879	12 29	40
7	36·4	12 30	42·7	30·3	7 11	12·4	565	18 48	589	529	11 49	60	913	18 38	929	893	11 56	36
8	36·3	13 11	43·8	30·7	7 12	13·1	566	20 39	591	546	12 56	45	912	19 31	922	883	11 44	39
9	37·4	12 44	42·9	31·8	6 23	11·1	566	18 28	595	542	13 24	53	910	16 10	921	882	10 56	39
10	37·1	13 6	43·2	31·2	8 44	12·0	570	18 3	593	546	11 12	47	908	17 30	923	880	10 40	43
11	37·0	12 50	44·5	30·7	7 31	13·8	573	23 30	597	542	11 24	55	906	18 14	925	876	12 25	49
12	36·5	12 57	44·5	29·6	8 6	14·9	566	5 41	608	513	11 23	95	906	18 36	929	881	11 19	48
13	36·7	13 10	48·9	23·4	5 2	25·5	567	3 40	619	512	10 28	107	904	17 47	955	864	4 50	91
14	36·5	15 6	46·3	20·4	21 15	25·9	560	21 25	626	512	13 20	114	909	19 19	930	881	13 14	49
15	36·5	13 55	46·7	26·7	21 10	20·0	562	21 20	605	502	10 23	103	909	17 34	929	886	11 39	43
16	36·5	13 46	44·4	27·8	7 4	16·6	562	20 33	607	517	11 48	90	906	17 20	940	877	11 38	63
17	36·7	12 16	44·8	30·4	8 41	14·4	561	17 37	593	522	12 45	71	905	17 39	930	877	10 43	53
18	36·3	12 57	44·7	30·1	7 42	14·6	560	21 9	590	536	10 41	54	913	18 11	926	893	12 18	33
19	35·8	12 27	44·9	30·4	5 46	14·5	564	19 50	594	545	12 50	49	910	19 0	926	885	11 46	41
20	36·8	12 25	45·2	30·2	7 38	15·0	570	18 16	599	543	8 53	56	909	16 34	925	883	11 44	42
21	36·0	13 2	42·1	28·5	7 45	13·6	570	18 15	599	540	11 5	59	909	18 9	921	890	11 3	31
22	37·4	13 6	43·5	28·7	7 13	14·8	570	19 4	590	537	8 58	53	897	4 54	916	875	14 53	41
23	38·2	13 41	46·7	30·7	5 1	16·0	558	1 53	587	512	6 33	75	908	17 53	923	883	11 21	40
24	36·5	13 44	43·9	29·5	7 7	14·4	558	18 26	598	526	11 18	72	912	17 48	926	886	12 36	40
25	37·0	13 50	46·6	29·1	6 16	17·5	559	18 7	592	523	7 34	69	906	17 10	934	880	5 18	54
26	36·9	14 12	45·1	29·3	7 59	15·8	562	18 24	592	539	13 59	53	910	19 43	933	869	11 57	64
27	37·2	12 10	44·8	30·0	6 40	14·8	566	19 48	611	522	13 7	89	905	18 40	923	879	12 2	44
28	37·3	13 23	47·7	27·5	7 7	20·2	576	16 49	620	509	12 36	111	907	18 27	934	872	12 35	62
29	36·9	14 18	42·1	31·8	5 42	10·3	575	18 47	598	549	10 16	49	910	18 27	925	891	9 28	34
30	36·8	15 18	41·6	28·6	5 48	13·0	574	17 46	606	542	9 32	64	908	17 41	927	877	11 50	50
31	36·5	12 44	44·6	30·0	6 36	14·6	569	18 6	601	529	9 10	72	913	16 40	922	892	12 2	30
Mean	36·8	—	44·5	29·5	—	15·0	566	—	600	530	—	70	909	—	927	882	—	45
No. of Days used.	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31
JUNE.	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	36·3	12 22	42·9	29·0	6 32	13·9	572	16 1	603	529	12 57	74	908	20 0	922	885	11 48	37
2	36·3	14 16	41·3	28·6	8 31	12·7	567	15 53	595	539	5 39	56	912	17 27	930	893	12 35	37
3	36·4	12 41	42·8	29·5	7 28	13·3	570	18 46	594	543	9 30	51	913	17 8	925	896	11 38	29
4	36·0	13 20	43·4	29·1	7 20	14·3	568	15 47	605	541	10 5	64	912	16 44	927	894	11 24	33
5	36·6	14 6	42·5	27·4	6 50	15·1	567	15 40	582	544	9 4	38	908	16 45	919	880	11 56	39
6	37·3	13 15	44·4	30·9	8 10	13·5	576	18 33	605	553	9 5	52	909	18 27	920	886	11 34	34
7	36·9	12 50	45·3	29·2	6 34	16·1	567	0 25	596	537	9 55	59	909	17 39	925	893	10 59	32
8	36·1	14 9	45·9	27·0	23 4	18·9	572	16 6	616	535	10 1	81	909	17 10	929	883	11 41	46
9	36·4	13 37	47·0	27·4	6 20	19·6	572	18 19	612	543	10 31	69	911	18 36	934	887	10 28	47
10	36·8	13 22	47·6	26·4	5 25	21·2	563	19 15	620	507	11 26	113	912	18 11	960	887	11 24	73
11	36·5	14 50	45·5	28·9	8 5	16·6	560	16 30	645	496	11 24	149	911	16 25	948	887	10 57	61
12	36·3	13 19	43·7	29·7	8 2	14·0	563	18 56	620	524	12 3	96	914	18 49	939	894	11 57	45
13	35·6	14 20	42·6	28·9	8 11	13·7	564	16 43	591	533	11 26	58	914	16 50	932	891	11 0	41
14	35·9	15 2	40·8	30·4	6 24	10·4	564	19 33	582	546	11 41	36	912	7 55	923	894	12 16	29
15	36·1	14 20	43·8	30·3	6 9	13·5	563	18 57	589	538	13 11	51	910	18 30	930	893	13 2	37
16	36·2	13 47	46·0	29·2	5 17	16·8	565	19 10	590	531	11 10	59	910	19 0	933	890	11 20	43
17	36·5	13 59	45·5	29·9	6 53	15·6	567	20 34	596	543	10 59	53	909	18 30	921	884	11 6	37
18	36·1	13 55	43·1	29·7	7 22	13·4	570	1 51	584	550	13 19	34	908	18 46	920	887	10 42	33
19	36·3	12 29	43·2	30·6	7 43	12·6	570	21 41	598	543	9 24	55	907	18 41	918	884	11 39	34
20	36·1	13 58	43·9	27·7	6 54	16·2	568	16 28	598	534	10 38	64	908	17 32	920	885	11 24	35
21	36·2	14 35	44·2	28·2	6 5	16·0	574	17 34	623	546	9 51	77	908	18 0	930	884	11 1	46
22	36·4	12 37	45·2	24·6	5 53	20·6	575	20 4	651	527	7 20	124	908	19 19	933	878	11 24	55
23	36·4	13 47	46·4	26·7	22 6	19·7	570	22 16	632	523	14 30	109	911	17 37	939	878	11 43	61
24	36·0	14 23	44·8	27·9	7 41	16·9	564	18 15	596	534	12 18	62	910	15 26	929	882	11 40	47
25	36·5	14 35	40·8	32·4	7 55	8·4	564	17 20	589	519	12 6	70	914	18 49	925	895	12 3	30
26	36·6	13 7	44·2	30·0	7 28	14·2	564	15 51	583	536	11 0	47	912	17 38	927	890	12 41	37
27	35·9	13 22	44·1	27·4	7 41	16·7	572	14 42	609	542	10 1	67	914	18 42	927	891	10 56	36
28	37·9	13 22	47·9	30·0	8 36	17·9	563	14 30	603	520	10 54	83	923	16 39	967	899	11 5	68
29	35·9	12 50	41·8	28·5	7 40	13·3	561	21 51	584	534	9 56	50	913	5 20	927	892	11 34	35
30	36·0	13 46	44·3	23·1	22 14	21·2	566	20 24	601	537	14 46	64	913	17 50	940	877	10 47	63
Mean	36·3	—	44·2	28·6	—	15·6	567	—	603	534	—	69	911	—	931	888	—	43
No. of Days used.	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30

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

Date.	Declination West.						Horizontal Force.						Vertical Force.					
	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.
		G.M.T.			G.M.T.			G.M.T.			G.M.T.			G.M.T.			G.M.T.	
JULY	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	33·6	13 55	41·7	23·1	1 7	18·6	556	21 38	596	514	10 32	82	906	19 9	925	892	5 48	33
2	36·1	14 59	42·6	32·4	5 57	10·2	567	19 6	594	539	8 47	55	907	19 0	920	885	11 36	35
3	34·9	13 19	41·5	28·4	7 43	13·1	571	18 40	609	542	10 24	67	907	4 26	917	885	11 58	32
4	35·9	13 9	43·6	30·7	6 46	12·9	570	17 55	592	545	13 39	47	912	17 26	925	894	10 24	31
5	35·9	16 33	49·2	28·1	5 49	21·1	570	16 34	688	520	16 55	168	913	16 27	939	888	12 57	51
6	36·5	13 40	45·6	28·7	8 4	16·9	560	18 57	593	515	8 48	78	912	16 1	934	890	8 20	44
7	34·7	13 46	43·2	27·3	6 40	15·9	551	18 20	608	492	10 45	116	913	18 19	931	892	12 20	39
8	34·6	13 55	43·7	26·0	7 25	17·7	557	15 28	588	492	9 22	96	911	18 9	925	888	12 57	37
9	35·2	13 44	44·3	27·2	6 46	17·1	561	19 18	588	520	10 1	68	909	18 29	924	879	11 40	45
10	37·3	14 36	49·2	28·2	23 55	21·0	563	16 44	773	484	12 37	289	920	18 40	986	885	23 16	101
11	33·9	14 45	41·6	24·2	8 30	17·4	549	1 7	587	498	10 47	89	915	18 53	938	899	10 20	39
12	34·8	13 20	42·4	27·5	8 25	14·9	549	19 13	576	503	10 24	73	914	19 7	950	902	10 42	48
13	35·0	14 34	42·3	29·3	7 8	13·0	554	18 55	587	527	13 23	60	914	19 4	933	893	11 35	40
14	33·0	14 12	41·5	25·8	19 59	15·7	560	17 20	629	528	23 54	101	917	20 1	951	889	13 42	62
15	34·9	14 24	44·4	20·8	2 24	23·6	543	17 47	612	487	23 49	125	906	18 20	967	853	4 7	114
16	35·0	15 10	49·6	20·9	0 3	28·7	537	15 8	611	489	9 19	122	935	16 30	1001	893	11 39	108
17	36·8	12 18	46·3	28·1	5 23	18·2	539	20 40	570	483	12 47	87	923	18 14	936	903	12 4	33
18	34·8	13 11	44·9	27·5	7 46	17·4	549	16 49	580	506	11 40	74	920	18 15	931	894	11 20	37
19	34·5	14 23	40·2	27·7	8 2	12·5	554	23 44	579	524	10 45	55	916	16 40	929	893	11 57	36
20	36·0	13 47	47·4	28·3	7 2	19·1	564	14 7	603	513	9 39	90	917	15 59	934	898	12 6	36
21	35·5	13 59	46·0	27·3	6 3	18·7	562	0 39	604	528	12 45	76	917	17 34	941	894	11 20	47
22	34·6	12 51	40·5	28·4	6 18	12·1	556	19 4	584	496	9 14	88	915	19 10	932	896	12 28	36
23	35·2	12 53	42·8	28·8	6 50	14·0	560	17 37	582	525	10 26	57	915	15 47	933	898	10 50	35
24	35·4	13 45	43·6	29·6	18 37	14·0	563	18 50	635	528	9 52	107	918	18 44	955	901	13 35	54
25	35·4	14 24	43·4	28·1	23 15	15·3	553	23 16	577	520	13 18	57	914	17 24	933	896	12 57	37
26	35·1	14 54	43·9	29·9	0 14	14·0	558	16 57	589	524	10 30	65	915	17 56	934	892	12 42	42
27	36·0	13 11	42·8	31·1	7 57	11·7	561	19 15	573	539	10 13	34	915	16 2	927	893	11 12	34
28	35·6	14 42	41·1	31·3	7 59	9·8	559	19 6	582	529	10 26	53	912	17 53	925	893	11 24	32
29	35·5	13 46	42·9	29·0	7 52	13·9	564	17 57	590	539	10 40	51	910	17 54	923	891	13 36	32
30	35·6	13 45	42·4	28·7	7 26	13·7	571	19 14	603	539	9 47	64	911	18 10	926	887	10 40	39
31	35·6	12 40	43·1	28·6	5 57	14·5	568	21 14	660	530	13 42	130	907	21 11	933	886	11 57	47
Mean	35·3	—	43·8	27·7	—	16·1	558	—	605	517	—	88	914	—	937	891	—	46
No. of Days used.	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31
AUG.	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	34·0	15 15	49·2	20·6	23 42	28·6	556	18 35	609	510	22 48	99	919	18 33	960	886	2 5	74
2	34·5	12 44	40·4	25·8	0 48	14·6	544	21 41	603	513	6 23	90	910	21 36	930	881	11 1	49
3	35·0	12 50	42·4	28·2	7 17	14·2	551	15 44	575	520	8 38	55	913	15 41	928	884	10 48	44
4	36·1	13 17	45·8	28·8	23 20	17·0	557	17 30	591	518	10 33	73	914	17 26	932	891	11 17	41
5	34·9	12 55	45·9	26·4	6 15	19·5	552	2 40	610	511	9 47	99	909	17 40	931	878	2 55	53
6	35·1	13 19	41·7	30·3	7 36	11·4	557	18 15	574	529	9 50	45	914	17 11	923	900	11 20	23
7	35·3	13 7	41·9	30·1	6 45	11·8	558	19 34	579	521	9 48	58	912	18 33	925	895	12 44	30
8	35·2	13 12	43·7	29·9	6 29	13·8	557	19 15	579	524	10 5	55	911	6 6	925	891	11 55	34
9	36·0	13 8	44·6	30·2	7 32	14·4	563	19 29	582	530	9 20	52	909	17 10	920	891	12 34	29
10	34·8	13 14	41·2	28·8	7 25	12·4	571	23 50	600	534	10 10	66	909	7 50	919	892	11 50	27
11	34·6	13 24	45·3	22·0	20 23	23·3	577	17 11	624	536	11 37	88	905	19 46	936	878	11 15	58
12	34·3	14 25	48·4	28·3	6 31	20·1	559	20 29	586	525	11 44	61	906	20 24	919	878	12 6	41
13	35·2	13 20	41·4	31·7	5 34	9·7	561	18 55	580	531	10 25	49	908	15 14	920	889	11 57	31
14	35·1	15 48	48·2	25·3	21 59	22·9	566	16 26	706	480	19 10	226	923	18 29	1008	890	10 44	118
15	34·0	0 59	43·4	26·3	21 46	17·1	538	18 7	597	482	8 42	115	916	18 10	944	873	0 31	71
16	35·1	13 4	42·9	28·9	7 46	14·0	549	19 58	586	508	9 41	78	914	16 5	941	890	11 5	51
17	35·2	13 11	43·7	28·5	6 45	15·2	562	21 56	591	529	9 40	62	912	18 5	927	888	12 4	39
18	35·8	13 4	44·1	28·1	19 31	16·0	550	0 18	607	465	10 35	142	911	16 25	938	882	10 20	56
19	34·8	12 56	44·3	27·8	7 48	16·5	550	15 4	593	499	13 20	94	921	15 50	953	900	11 13	53
20	34·8	12 44	42·3	29·6	7 45	12·7	551	18 34	575	518	8 51	57	917	16 7	937	899	11 42	38
21	35·4	12 59	44·2	30·1	6 13	14·1	556	1 53	582	516	9 4	66	912	16 25	928	889	10 57	39
22	34·7	12 33	41·8	29·9	7 14	11·9	554	19 30	571	516	8 17	55	915	15 26	932	899	10 37	33
23	34·7	13 43	42·2	27·5	7 43	14·7	559	22 19	582	529	9 0	53	914	17 58	929	895	11 59	34
24	35·2	13 30	44·4	30·1	8 4	14·3	559	19 57	579	525	10 1	54	913	16 56	929	898	11 58	31
25	35·1	13 12	43·5	29·5	8 7	14·0	558	22 39	576	524	10 33	52	911	16 4	921	889	12 22	32
26	35·1	12 44	42·9	28·8	8 25	14·1	566	17 55	601	524	10 40	77	908	6 43	920	886	11 45	34
27	34·4	13 8	44·1	28·2	8 29	15·9	561	6 50	578	522	11 17	56	911	17 10	926	898	12 17	28
28	34·2	14 15	39·8	27·7	7 7	12·1	559	22 40	579	535	11 4	44	906	6 21	917	885	12 16	32
29	34·6	13 18	42·3	29·7	8 34	12·6	563	18 35	580	532	10 20	48	904	19 32	919	877	12 57	42
30	34·0	12 40	39·9	29·0	7 24	10·9	567	22 2	579	548	8 44	31	903	16 2	912	882	12 18	30
31	34·1	13 29	41·7	28·9	3 23	12·8	567	23 7	610	538	9 17	72	903	18 40	916	885	11 17	31
Mean	34·9	—	43·5	28·2	—	15·3	558	—	592	519	—	73	911	—	931	888	—	43
No. of Days used.	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31

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

Date.	Declination West.						Horizontal Force.						Vertical Force.					
	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.
SEPT.	12°+	G.M.T. h m	12°+	12°+	G.M.T. h m		18000γ+	G.M.T. h m	18000γ+	18000γ+	G.M.T. h m	γ	42000γ+	G.M.T. h m	42000γ+	42000γ+	G.M.T. h m	γ
	′		′	′		′												
1	33·8	11 27	41·2	27·6	0 39	13·6	558	22 20	586	525	7 55	61	904	22 7	914	888	10 23	26
2	34·3	12 43	43·1	28·2	7 12	14·9	562	0 55	607	536	8 22	71	905	17 10	916	889	12 22	27
3	34·7	12 45	42·9	30·1	6 52	12·8	559	18 41	575	531	9 43	44	905	7 19	915	878	11 40	37
4	34·9	12 2	42·8	30·3	7 25	12·5	560	22 15	585	531	9 6	54	904	22 5	912	888	11 43	24
5	34·7	13 6	43·0	28·2	7 41	14·8	559	20 16	573	517	10 43	56	907	6 9	916	889	11 37	27
6	34·9	12 7	41·7	29·6	7 4	12·1	569	23 44	616	547	9 27	69	907	16 17	919	894	11 58	25
7	33·1	14 3	42·9	17·4	3 25	25·5	551	1 46	626	471	10 8	155	903	17 38	945	871	3 22	74
8	33·8	12 21	40·5	28·0	23 57	12·5	550	23 4	575	522	10 14	53	907	5 42	917	890	12 29	27
9	34·2	14 4	44·6	34·7	23 22	9·9	554	21 45	597	514	9 7	83	903	21 46	922	883	12 38	39
10	34·1	6 19	42·7	16·0	17 43	26·7	538	18 3	616	470	9 52	146	910	17 55	960	880	2 40	80
11	34·7	13 5	45·1	25·0	20 40	20·1	537	20 48	588	477	8 40	111	915	16 14	949	886	1 30	63
12	34·5	13 53	43·6	23·9	19 10	19·7	542	23 5	607	491	11 27	116	917	16 17	952	896	11 2	56
13	33·5	12 35	44·9	26·0	19 18	18·9	546	22 44	574	485	11 35	89	912	18 53	942	892	2 24	50
14	33·8	11 2	42·2	23·3	16 22	18·9	545	19 47	614	488	9 25	126	913	16 27	971	883	0 57	88
15	32·3	1 22	39·3	21·8	18 29	17·5	543	18 15	590	486	10 26	104	911	18 15	945	884	2 24	61
16	33·6	12 25	42·3	27·1	19 5	15·2	546	23 25	580	506	15 25	74	913	16 4	948	899	10 42	49
17	33·1	11 43	39·4	28·6	7 43	10·8	548	22 34	573	512	9 33	61	913	15 50	923	899	11 58	24
18	33·5	12 6	41·6	27·0	20 24	14·6	551	22 32	576	528	10 24	48	912	19 45	928	890	11 33	38
19	32·9	12 20	39·3	28·7	7 50	10·6	557	22 18	578	533	10 6	45	913	16 25	921	898	11 37	23
20	33·7	12 57	39·7	29·8	8 24	9·9	563	22 30	587	530	11 23	57	912	22 22	921	894	11 21	27
21	33·3	13 35	42·2	34·8	21 45	7·4	554	21 37	588	518	17 42	70	914	18 27	936	892	11 33	44
22	35·5	0 50	47·0	25·7	17 24	21·3	537	0 53	610	440	10 50	170	906	17 19	961	863	5 16	98
23	34·0	12 50	42·9	28·0	8 10	14·9	542	21 27	581	495	10 17	86	916	17 1	933	889	11 58	44
24	33·7	13 20	40·9	28·7	24 0	12·2	553	5 4	581	524	10 22	57	910	17 1	921	892	11 52	29
25	33·4	12 54	42·9	26·9	23 36	16·0	553	23 9	595	514	13 39	81	911	17 54	924	894	13 37	30
26	33·7	13 58	41·6	28·0	8 32	13·6	551	21 5	579	506	10 3	73	913	20 8	926	896	12 37	30
27	34·0	12 52	45·7	26·4	20 50	19·3	550	19 56	618	493	14 44	125	914	19 54	935	896	10 38	39
28	33·7	12 31	39·2	29·4	8 35	9·8	552	19 5	565	534	12 15	31	914	22 58	925	900	12 11	25
29	32·8	12 54	36·9	28·5	8 28	8·4	553	23 16	566	529	11 37	37	915	7 34	921	907	11 17	14
30	32·9	14 59	40·4	27·1	8 28	13·3	557	22 41	583	524	13 50	59	913	19 32	921	898	12 16	23
Mean	33·8	—	42·1	27·2	—	14·9	551	—	590	509	—	81	910	—	931	890	—	41
No. of Days used.	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30
OCT.	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	33·1	13 38	39·0	27·4	8 30	11·6	553	20 37	578	523	10 25	55	910	21 2	914	887	11 41	27
2	33·2	13 7	38·8	27·7	8 42	11·1	557	23 25	577	531	10 2	46	907	21 42	924	890	11 57	34
3	33·0	14 24	40·3	27·6	8 11	12·7	560	24 0	577	528	10 34	49	908	18 28	924	888	11 40	36
4	32·7	12 10	42·2	28·0	3 49	14·2	558	22 17	608	513	10 32	95	906	19 1	929	889	11 43	40
5	33·6	13 41	40·5	28·3	0 12	12·2	552	20 54	572	511	9 24	61	909	16 11	922	895	11 50	27
6	33·3	13 32	40·3	27·5	9 2	12·8	555	6 45	575	509	10 27	66	908	17 49	922	891	11 20	31
7	33·0	14 32	46·4	15·5	21 12	30·9	540	22 13	586	472	13 17	114	915	16 24	958	886	11 23	72
8	33·2	14 7	42·6	22·5	21 5	20·1	536	23 4	655	440	11 57	215	918	15 10	956	889	23 50	67
9	31·9	13 28	42·6	15·3	19 5	27·3	—	22 2	593	447	11 53	146	922	14 46	955	894	0 0	61
10	33·7	13 39	40·6	27·3	17 28	13·3	539	19 59	598	484	10 2	114	916	17 7	935	908	0 38	27
11	33·0	13 30	39·5	27·9	9 17	11·6	545	20 9	587	507	10 40	80	914	18 11	931	903	3 46	28
12	33·0	13 43	43·3	25·7	18 35	17·6	541	3 44	584	493	11 46	91	917	18 36	943	897	3 54	46
13	33·9	13 34	41·1	26·3	20 37	14·8	540	5 4	583	486	10 37	97	913	16 44	947	887	5 56	60
14	32·5	13 6	39·4	28·3	9 24	11·1	546	2 29	570	520	14 52	50	917	15 14	936	904	11 28	32
15	33·0	13 20	39·7	27·7	21 29	12·0	548	22 22	566	516	10 42	50	917	16 5	928	907	10 58	21
16	31·3	13 55	44·4	1·6	18 24	42·8	535	23 50	576	397	18 19	179	925	18 21	998	890	20 59	108
17	32·4	2 30	48·6	14·9	19 38	33·7	537	22 36	588	448	19 30	140	917	19 42	961	887	2 51	74
18	31·4	13 45	40·3	13·2	22 9	27·1	531	22 19	620	497	17 20	123	923	16 14	960	901	23 44	59
19	31·3	5 29	40·0	17·0	1 22	23·0	528	4 28	596	487	19 25	109	915	17 25	956	875	2 20	81
20	32·7	12 25	40·0	21·4	17 53	18·6	542	18 5	583	510	10 5	73	924	18 0	945	908	11 24	37
21	32·4	12 39	38·4	26·5	20 36	11·9	546	1 51	585	516	9 59	69	920	16 20	936	909	11 42	27
22	33·1	13 33	41·8	24·7	21 13	17·1	552	18 50	572	514	10 6	58	919	16 30	933	912	9 45	21
23	32·4	12 20	39·3	20·2	23 58	19·1	551	23 59	574	520	10 1	54	919	17 40	932	907	13 18	25
24	32·2	11 45	41·6	20·8	0 0	20·8	551	23 27	603	513	11 6	90	919	19 32	938	904	10 57	34
25	32·1	13 55	39·3	26·9	20 34	12·4	554	21 10	591	528	10 51	63	918	20 10	932	904	11 24	28
26	32·5	12 18	36·2	29·3	9 8	6·9	557	5 26	564	538	11 18	26	919	8 24	929	911	11 17	18
27	32·4	13 42	36·8	28·2	9 0	8·6	554	21 7	570	529	11 54	41	920	8 6	929	915	11 9	14
28	32·5	13 7	36·4	29·1	9 32	7·3	563	21 1	579	544	11 45	35	918	23 40	929	913	11 46	16
29	31·5	13 57	39·0	15·7	1 17	23·3	556	1 3	600	522	13 33	78	919	16 37	932	911	9 57	21
30	32·4	13 10	46·9	24·0	22 5	22·9	551	19 35	599	474	13 55	125	924	19 34	954	906	11 20	48
31	32·4	1 7	46·5	26·0	18 56	20·5	547	21 7	591	521	10 47	70	921	15 19	938	907	1 40	31
Mean	32·6	—	41·0	23·3	—	17·7	548	—	587	501	—	86	917	—	939	899	—	40
No. of Days used.	31	—	31	31	—	31	30	—	31	31	—	31	31	—	31	31	—	31

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

Date.	Declination West.						Horizontal Force.						Vertical Force.					
	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.	Mean Value for the Day.	Maximum.		Minimum.		Range.
		G.M.T.			G.M.T.			G.M.T.			G.M.T.			G.M.T.			G.M.T.	
NOV.	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	32·0	13 10	37·2	23·4	20 28	13·8	554	7 15	584	517	23 2	67	919	20 50	939	902	11 50	37
2	31·8	13 11	41·8	20·2	20 32	21·6	540	20 46	603	507	13 57	96	921	14 48	948	895	23 58	53
3	31·8	6 52	46·1	8·7	19 20	37·4	510	19 27	614	411	10 26	203	926	15 27	1005	888	0 6	117
4	31·1	13 29	40·0	12·2	17 46	27·8	522	22 24	574	453	17 42	121	929	16 14	966	909	3 16	57
5	31·5	14 10	38·8	10·8	17 48	28·0	533	17 58	607	484	11 59	123	927	17 50	959	914	0 7	45
6	31·8	13 33	37·6	22·9	16 57	14·7	533	17 1	577	480	11 30	97	928	16 59	951	913	1 38	38
7	31·3	12 54	42·3	13·6	16 10	28·7	532	22 3	564	466	15 54	98	930	16 15	971	911	11 34	60
8	33·0	12 37	36·5	28·2	1 54	8·3	546	21 54	591	530	12 18	61	927	21 50	940	915	11 42	25
9	32·5	13 50	39·9	29·7	8 57	10·2	545	0 34	569	503	15 40	66	931	16 0	963	919	11 20	44
10	32·1	13 1	35·6	30·1	8 30	5·5	542	20 16	558	507	10 20	51	929	8 1	936	928	23 40	8
11	31·9	12 26	35·3	27·9	8 54	7·4	549	18 59	562	516	11 19	46	923	8 10	933	912	11 16	21
12	31·2	12 43	34·6	25·1	22 56	9·5	553	5 10	569	538	9 54	31	923	23 35	932	919	11 53	13
13	31·4	12 41	36·6	23·8	21 25	12·8	548	6 21	563	519	21 25	44	922	21 45	935	907	10 49	28
14	31·2	15 43	36·4	24·1	23 40	12·3	546	23 46	557	528	16 33	29	922	16 56	935	912	10 40	23
15	32·0	12 48	37·6	19·6	19 15	18·0	546	23 36	592	503	16 1	89	922	16 39	943	910	24 0	33
16	32·4	5 26	42·5	18·1	19 32	24·4	527	5 47	584	450	15 4	134	929	15 40	987	903	6 7	84
17	31·3	13 25	35·8	28·6	8 47	7·2	539	17 33	553	522	11 23	31	926	15 37	936	914	10 19	22
18	31·5	12 5	36·3	28·4	9 1	7·9	545	23 38	554	529	14 55	25	926	23 32	931	912	11 0	19
19	31·5	13 30	36·6	26·6	21 45	10·0	553	7 3	570	537	13 3	33	928	17 25	940	917	9 45	23
20	31·4	18 34	38·4	25·7	20 17	12·7	541	12 17	569	478	19 0	91	936	19 14	986	914	9 59	72
21	31·9	12 2	36·0	26·5	20 4	9·5	551	18 22	580	521	19 58	59	930	20 20	946	919	10 45	27
22	32·0	16 39	37·0	28·1	23 50	8·9	557	15 20	573	541	18 34	32	926	19 58	939	914	11 22	25
23	31·3	13 12	35·7	26·2	1 57	9·5	554	0 57	571	535	11 32	36	925	20 59	933	918	11 14	15
24	31·7	11 16	34·8	28·8	19 8	6·0	556	20 33	567	540	11 30	27	925	18 46	934	920	10 17	14
25	31·8	14 55	35·8	29·0	8 42	6·8	558	19 3	574	532	15 5	42	925	15 46	936	921	12 57	15
26	31·7	14 0	37·4	25·3	24 0	12·1	565	18 26	588	544	11 42	44	924	20 21	936	918	11 35	18
27	29·9	13 17	38·5	20·9	21 50	17·6	550	21 56	598	529	17 8	69	928	18 53	947	916	9 58	31
28	31·1	12 0	37·1	25·5	19 10	11·6	554	10 34	571	530	19 4	41	925	20 21	940	912	10 56	28
29	31·3	12 19	36·0	26·8	18 54	9·2	553	22 28	583	525	15 56	58	924	16 35	940	915	11 18	25
30	30·6	12 35	35·0	26·2	21 47	8·8	551	20 25	582	528	15 39	54	926	16 59	942	922	22 23	20
Mean	31·6	—	37·6	23·7	—	13·9	545	—	577	510	—	67	926	—	948	913	—	35
No. of Days used.	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30	30	—	30
DEC.	12°+	h m	12°+	12°+	h m		18000γ+	h m	18000γ+	18000γ+	h m	γ	42000γ+	h m	42000γ+	42000γ+	h m	γ
	′		′	′		′												
1	31·2	12 49	35·1	28·6	8 44	6·5	554	20 8	568	536	9 50	32	925	16 59	935	917	11 46	18
2	31·7	12 43	36·4	27·4	19 24	9·0	558	6 2	575	535	13 42	40	925	16 18	937	919	12 1	18
3	30·6	16 28	39·7	2·7	20 50	37·0	548	18 50	572	453	21 51	119	927	22 44	951	909	23 37	42
4	30·5	4 7	43·1	16·6	23 14	26·5	506	2 20	579	435	15 0	144	941	15 30	1000	891	2 45	109
5	30·4	4 48	40·4	19·2	0 10	21·2	511	3 16	575	455	8 47	120	938	15 30	988	889	3 50	99
6	31·9	6 16	40·0	19·9	0 20	20·1	520	0 30	573	481	18 17	92	934	15 42	981	891	4 31	90
7	31·2	0 42	35·8	27·3	1 24	8·5	532	0 40	567	491	13 28	76	938	14 33	963	928	1 14	35
8	31·2	11 55	36·1	22·2	17 25	13·9	538	4 4	570	486	17 8	84	933	17 37	963	922	5 28	41
9	30·5	13 1	34·0	20·9	22 50	13·1	540	22 58	583	523	22 36	60	934	18 25	947	926	9 58	21
10	30·5	14 44	35·8	25·0	22 22	10·8	543	22 42	575	504	16 25	71	932	16 50	954	916	12 0	38
11	30·5	5 30	37·2	15·3	21 32	21·9	541	1 58	585	503	17 58	82	930	19 30	957	914	2 20	43
12	30·2	12 0	35·9	22·0	1 35	13·9	539	4 25	583	502	8 59	81	927	20 10	946	899	4 55	47
13	31·3	11 29	35·2	27·9	2 14	7·3	550	7 44	564	539	14 36	25	930	15 26	941	923	6 7	18
14	31·1	12 59	34·7	23·2	18 45	11·5	550	18 58	557	522	18 27	35	933	18 51	945	928	11 40	17
15	31·3	12 23	35·7	25·9	22 55	9·8	551	22 59	568	534	16 8	34	932	15 4	943	926	9 29	17
16	32·0	18 9	43·6	8·3	18 58	35·3	529	4 22	570	359	18 40	211	950	18 10	1025	924	9 20	101
17	30·8	19 47	34·8	17·0	22 22	17·8	529	8 52	562	457	20 18	105	942	20 23	984	925	11 40	59
18	31·0	12 52	37·5	23·7	22 54	13·8	537	22 24	583	513	0 14	70	936	18 54	948	922	11 57	26
19	30·9	12 25	33·9	28·6	2 57	5·3	547	18 59	555	539	9 54	16	935	13 47	945	931	11 24	14
20	30·8	13 6	35·6	27·6	1 24	8·0	552	7 27	563	534	10 5	29	929	17 2	938	917	11 23	21
21	30·9	13 11	35·0	28·1	22 52	6·9	556	23 35	570	542	10 45	28	927	17 15	936	917	11 43	19
22	30·4	14 16	42·9	16·1	21 16	26·8	548	20 44	597	494	18 3	103	930	18 50	970	908	11 59	62
23	29·9	13 29	34·9	22·1	0 20	12·8	539	5 3	562	514	20 40	48	932	21 16	952	914	0 0	38
24	30·5	12 38	35·5	19·4	22 37	16·1	550	22 44	601	533	23 55	68	931	22 40	945	924	12 54	21
25	30·5	14 42	34·9	26·0	21 1	8·9	549	21 15	571	534	0 9	37	930	21 11	940	928	9 26	12
26	30·8	13 37	35·2	26·5	20 49	8·7	555	20 57	571	541	9 50	30	929	20 1	938	924	10 20	14
27	31·1	13 21	35·0	26·9	0 31	8·1	554	6 59	565	537	13 25	28	929	20 20	940	922	10 3	18
28	30·7	17 25	35·2	23·7	21 53	11·5	557	22 4	579	543	18 0	36	929	21 58	940	923	9 38	17
29	30·6	12 45	33·7	26·9	22 56	6·8	556	17 13	571	538	9 45	33	928	15 35	938	921	10 18	17
30	30·6	14 27	35·7	26·3	2 22	9·4	553	1 51	571	533	12 56	38	930	16 14	941	922	10 3	19
31	30·4	13 55	36·9	25·8	23 57	11·1	551	1 38	574	517	18 6	57	930	18 30	944	917	11 42	27
Mean	30·8	—	36·6	22·5	—	14·1	543	—	573	507	—	66	932	—	954	917	—	37
No. of Days used.	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31	31	—	31

TABLE V.—MEAN DIURNAL INEQUALITIES OF THE MAGNETIC ELEMENTS—DECLINATION, INCLINATION AND HORIZONTAL FORCE.

"All" Days.

DECLINATION WEST.

Month and Season, 1929.	Greenwich Mean Time. Hour commencing—																						
	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon.	13.	14.	15.	16.	17.	18	19.	20.	21.	22.	23.
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−1·71	−1·12	−0·92	−0·66	−0·46	−0·45	−0·82	−1·15	−1·54	−1·16	+0·08	+1·81	+3·62	**+3·66**	+2·63	+1·64	+1·04	+1·05	+0·45	−0·02	−0·92	−1·67	−1·59	**−1·89**
Feb.	−2·94	−2·37	−1·74	−1·81	−1·04	−0·90	−0·74	−1·16	−1·84	−1·36	+0·30	+2·60	+4·51	**+5·19**	+4·75	+3·88	+1·86	+1·19	+0·60	+0·69	−1·64	−2·08	−2·61	**−3·31**
Mar.	−2·20	−1·64	−1·41	−1·82	−1·26	−1·11	−1·59	−2·76	**−2·93**	−2·02	+0·47	+3·86	+6·25	**+6·59**	+5·92	+4·19	+1·64	−0·11	−0·62	−1·31	−1·69	−1·94	−2·03	−2·50
Apr.	−1·21	−1·40	−1·76	−1·76	−2·08	−2·39	−3·60	**−5·04**	−5·01	−3·24	−0·11	+3·56	+6·43	**+7·32**	+6·38	+4·44	+2·79	+1·20	+0·08	−0·22	−0·59	−1·13	−1·15	−1·46
May.	−0·69	−0·97	−1·04	−1·17	−2·08	−3·51	−4·77	**−4·98**	−4·32	−2·06	+1·08	+4·13	+5·99	**+6·14**	+5·02	+3·65	+2·19	+0·79	−0·02	−0·32	−0·90	−1·18	−0·53	−0·58
June	−0·52	−0·58	−0·59	−1·57	−2 95	−4·58	−5·27	**−5·38**	−4·65	−2·89	+0·01	+3·23	+5·36	**+6·42**	+6·17	+4·95	+2·98	+1·36	+0·41	−0·06	−0·18	−0·13	−0·71	−0·73
July	−1·19	−1·96	−1·95	−2·00	−3·16	−4·30	−4·88	**−5·11**	−4·61	−2·54	+0·27	+3·33	+5·59	**+6·71**	+6·54	+5·06	+3·61	+1·80	+0·40	−0·09	−0·23	−0·14	−0·27	−0·82
Aug.	−0·92	−1·16	−1·43	−1·81	−2·70	−3·49	−4·15	**−4·49**	−3·76	−1·66	+1·47	+4·22	+6·29	**+6·86**	+5·57	+3·53	+1·22	+0·13	−0·12	−0·43	−0·49	−0·65	−0·94	−1·24
Sept.	−1·64	−0·85	−1·95	−2·43	−1·73	−1·97	−2·18	−3·00	**−3·04**	−1·05	+2·11	+4·57	**+6·59**	+6·45	+5·00	+2·52	+0·20	−0·58	−0·62	−1·13	−1·38	−1·38	−1·33	−1·50
Oct.	−2·06	−1·15	−0·54	−0·80	−0·46	−0·38	−0·64	−1·68	−2·50	−1·97	+0·38	+3·57	+5·73	**+6·23**	+5·07	+3·40	+1·59	+0·27	−1·42	−2·32	−2·72	**−2·87**	−2·32	−2·14
Nov.	−1·51	−1·19	−1·10	−0·85	−0·06	−0·16	−0·28	−0·35	−0·97	−0·74	+1·05	+2·78	+3·67	**+3·68**	+3·00	+1·21	+0·78	−0·16	−0·27	−0·82	−1·61	**−2·56**	−1·96	−1·53
Dec.	−2·03	−1·56	−1·13	−0·35	+0·36	+0·25	+0·17	−0·20	−0·53	+0·02	+1·11	+2·26	+3·39	**+3·57**	+2·82	+1·61	+1·51	+0·92	−0·12	−0·93	−2·03	−3·05	**−3·24**	−2·87
Year	−1·55	−1·33	−1·30	−1·42	−1·47	−1·92	−2·40	−2·94	**−2·98**	−1·72	+0·69	+3·33	+5·29	**+5·74**	+4·91	+3·34	+1·78	+0·66	−0·10	−0·58	−1·20	−1·57	−1·56	−1·71
Winter	−2·05	−1·56	−1·22	−0·92	−0·30	−0·32	−0·42	−0·72	−1·22	−0·81	+0·64	+2·36	+3·80	**+4·03**	+3·30	+2·09	+1·30	+0·75	+0·17	−0·27	−1·55	−2·34	−2·35	**−2·40**
Equinox	−1·78	−1·26	−1·42	−1·70	−1·38	−1·46	−2·00	−3·12	**−3·37**	−2·07	+0·71	+3·89	+6·25	**+6·65**	+5·59	+3·64	+1·56	+0·20	−0·65	−1·25	−1·60	−1·83	−1·71	−1·90
Summer	−0·83	−1·17	−1·25	−1·64	−2·72	−3·97	−4·77	**−4·99**	−4·34	−2·29	+0·71	+3·73	+5·81	**+6·53**	+5·83	+4·30	+2·50	+1·02	+0·17	−0·23	−0·45	−0·53	−0·61	−0·84

INCLINATION.

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−0·06	−0·15	−0·25	−0·37	−0·53	−0·54	**−0·55**	−0·48	−0·11	+0·34	+0·58	**+0·68**	+0·42	+0·28	+0·22	+0·26	+0·20	+0·02	−0·02	−0·06	−0·02	+0·08	+0·03	−0·01
Feb.	−0·35	−0·54	−0·61	−0·81	**−0·87**	−0·82	−0·86	−0·74	−0·06	+0·49	+0·80	**+1·00**	+0·86	+0·64	+0·30	+0·45	+0·59	+0·37	+0·19	+0·28	+0·02	+0·11	−0·19	−0·29
Mar.	−0·61	−0·68	−0·64	−0·77	−0·70	−0·66	−0·45	+0·03	+0·54	+0·86	**+0·99**	+0·98	+0·88	+0·54	+0·21	+0·45	+0·61	+0·49	+0·09	−0·06	−0·29	−0·39	−0·69	**−0·91**
Apr.	−0·52	−0·50	−0·33	−0·33	−0·43	−0·34	−0·21	+0·14	+0·64	**+1·10**	+1·28	+1·06	+0·76	+0·42	+0·18	−0·02	−0·12	−0·12	−0·18	−0·35	−0·42	−0·45	−0·52	**−0·72**
May	−0·53	−0·39	−0·28	−0·26	−0·33	−0·14	+0·23	+0·55	+0·85	**+0·95**	+0·86	+0·65	+0·68	+0·61	+0·31	+0·18	−0·14	−0·48	**−0·69**	−0·64	−0·63	−0·60	−0·36	−0·45
June	−0·34	−0·26	−0·24	−0·21	−0·14	−0·01	+0·32	+0·76	+1·01	**+1·12**	+0·97	+0·75	+0·60	+0·37	+0·05	−0·36	−0·43	−0·64	−0·64	**−0·69**	−0·66	−0·48	−0·47	−0·32
July	−0·44	−0·47	−0·38	−0·42	−0·40	−0·17	+0·32	+0·81	+1·35	**+1·67**	+1·53	+1·04	+0·77	+0·54	+0·06	−0·23	−0·66	−0·60	−0·81	**−0·84**	−0·72	−0·68	−0·63	−0·57
Aug.	−0·62	−0·57	−0·48	−0·41	−0·20	+0·01	+0·43	+0·95	+1·33	**+1·45**	+1·34	+0·74	+0·21	−0·02	0·00	−0·07	−0·28	−0·36	−0·39	−0·53	−0·62	−0·62	−0·58	**−0·65**
Sept.	−0·78	−0·73	−0·84	−0·61	−0·61	−0·44	−0·25	+0·31	+0·82	+1·27	**+1·50**	+1·23	+0·64	+0·49	+0·32	+0·51	+0·27	+0·11	−0·09	−0·25	−0·65	−0·63	−0·80	**−0·87**
Oct.	−0·56	−0·67	−0·77	**−0·89**	−0·89	−0·79	−0·71	−0·43	+0·18	+0·79	**+1·14**	+1·03	+0·91	+0·76	+0·65	+0·49	+0·56	+0·40	+0·22	+0·13	+0·02	−0·20	−0·55	−0·66
Nov.	−0·43	−0·39	−0·48	−0·49	−0·58	**−0·69**	−0·61	−0·50	−0·21	+0·22	+0·54	+0·66	+0·55	+0·52	+0·59	**+0·77**	+0·55	+0·30	+0·18	+0·23	−0·03	−0·12	−0·22	−0·41
Dec.	−0·29	−0·54	−0·61	−0·64	**−0·90**	−0·86	−0·88	−0·54	−0·12	+0·11	+0·26	+0·15	+0·27	+0·39	**+0·70**	+0·69	+0·54	+0·54	+0·69	+0·54	+0·41	+0·22	−0·05	−0·07
Year	−0·46	−0·49	−0·49	−0·52	**−0·55**	−0·45	−0·27	+0·07	+0·52	+0·86	**+0·98**	+0·83	+0·63	+0·46	+0·30	+0·26	+0·14	+0·00	−0·12	−0·19	−0·30	−0·31	−0·42	−0·49
Winter	−0·28	−0·41	−0·49	−0·58	−0·72	**−0·73**	−0·73	−0·57	−0·13	+0·29	+0·55	**+0·62**	+0·53	+0·46	+0·45	+0·54	+0·47	+0·31	+0·26	+0·25	+0·10	+0·07	−0·11	−0·20
Equinox	−0·62	−0·65	−0·65	−0·65	−0·66	−0·56	−0·41	+0·01	+0·55	+1·01	**+1·23**	+1·08	+0·80	+0·55	+0·34	+0·36	+0·33	+0·22	+0·01	−0·13	−0·34	−0·42	−0·64	**−0·79**
Summer	−0·48	−0·42	−0·35	−0·33	−0·27	−0·08	+0·33	+0·77	+1·14	**+1·30**	+1·18	+0·80	+0·57	+0·38	+0·11	−0·12	−0·38	−0·52	−0·63	**−0·68**	−0·66	−0·60	−0·51	−0·50

HORIZONTAL FORCE.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 1·0	+ 1·9	+ 2·9	+ 4·8	+ 6·9	+ 7·3	**+ 7·5**	+ 6·5	+ 0·8	− 6·3	−10·5	**−13·1**	− 8·8	− 4·5	− 2·2	− 2·3	− 1·4	+ 1·4	+ 2·2	+ 2·7	+ 1·9	+ 0·3	+ 0·8	+ 0·8
Feb.	+ 2·8	+ 4·9	+ 6·0	+ 8·8	+10·0	+10·0	**+10·8**	+ 9·9	+ 0·4	− 8·7	−14·5	**−18·2**	−15·6	−10·5	− 3·0	− 2·9	− 3·3	− 0·1	+ 1·9	+ 1·1	+ 3·8	+ 0·3	+ 2·8	+ 3·6
Mar.	+ 7·8	+ 7·9	+ 6·2	+ 7·3	+ 6·2	+ 6·2	+ 4·0	− 2·1	− 9·5	−15·8	−19·8	**−20·4**	−17·2	− 9·1	− 0·6	− 0·4	− 0·7	+ 0·6	+ 5·0	+ 6·1	+ 8·2	+ 8·1	+11·3	**+12·9**
Apr.	+ 8·4	+ 7·6	+ 5·1	+ 5·1	+ 6·5	+ 5·4	+ 4·0	− 1·5	−10·6	−20·2	**−25·5**	−23·9	−19·2	−11·3	− 3·6	+ 2·2	+ 5·6	+ 6·8	+ 7·9	+ 9·6	+ 9·8	+ 9·5	+ 9·9	**+11·9**
May	+ 8·7	+ 6·4	+ 4·8	+ 4·3	+ 5·6	+ 3·2	− 2·6	− 8·8	−14·8	**−19·0**	−10·2	−18·9	−18·2	−13·7	− 5·3	− 0·4	+ 6·3	+12·9	**+16·0**	+14·4	+13·3	+11·5	+ 7·4	+ 8·3
June	+ 4·9	+ 3·6	+ 3·2	+ 3·3	+ 2·9	+ 1·1	− 4·5	−11·7	−17·1	−21·3	**−21·4**	−19·4	−15·5	− 9·5	− 1·4	+ 7·9	+11·1	+15·9	**+16·1**	+15·6	+13·5	+ 9·1	+ 8·1	+ 5·1
July	+ 6·1	+ 6·1	+ 4·7	+ 5·6	+ 6·1	+ 2·9	− 4·7	−12·1	−21·6	**−28·3**	−28·2	−22·3	−17·8	−12·3	− 1·6	+ 4·5	+14·5	+15·0	**+18·9**	+18·3	+15·0	+12·3	+10·6	+ 8·1
Aug.	+ 8·5	+ 7·1	+ 5·8	+ 5·0	+ 3·2	+ 0·9	− 5·2	−13·0	−20·4	−24·7	**−25·9**	−18·1	− 9·1	− 3·3	+ 0·2	+ 4·4	+ 9·2	+10·5	+10·5	+11·7	**+11·8**	+10·9	+ 9·4	+ 9·7
Sept.	+10·7	+ 8·7	+10·2	+ 7·2	+ 7·8	+ 5·7	+ 3·5	− 4·5	−13·4	−22·3	**−27·5**	−24·0	−13·7	− 9·2	− 3·9	− 3·8	+ 1·4	+ 4·2	+ 6·3	+ 8·2	**+12·6**	+11·2	**+12·6**	+12·5
Oct.	+ 7·1	+ 7·7	+ 8·7	+10·6	**+10·8**	+ 9·6	+ 9·2	+ 6·1	− 3·0	−13·3	**−20·7**	−20·1	−16·4	−12·0	− 8·0	− 3·2	− 2·9	− 0·6	+ 1·7	+ 2·3	+ 2·7	+ 4·8	+ 8·6	+ 9·3
Nov.	+ 5·0	+ 4·3	+ 5·3	+ 5·4	+ 6·8	**+ 8·6**	+ 7·2	+ 5·7	+ 1·6	− 6·0	−11·6	**−13·1**	− 9·6	− 7·1	− 6·6	− 7·2	− 3·7	− 0·4	+ 1·0	+ 0·0	+ 2·9	+ 3·0	+ 3·7	+ 5·7
Dec.	+ 3·6	+ 6·1	+ 6·2	+ 6·7	+10·0	+ 9·7	**+10·5**	+ 5·9	− 0·3	− 3·9	− 5·9	− 4·6	− 5·7	− 4·9	**− 7·7**	− 6·3	− 3·8	− 3·8	− 6·0	− 4·3	− 2·8	− 1·1	+ 2·2	+ 1·0
Year	+ 6·2	+ 6·0	+ 5·8	+ 6·2	+ 6·9	+ 5·9	+ 3·3	− 1·6	− 9·0	−15·8	**−18·5**	−18·0	−13·9	− 9·0	− 3·6	− 0·6	+ 2·7	+ 5·2	+ 6·8	+ 7·1	**+ 7·7**	+ 6·7	+ 7·3	+ 7·4
Winter	+ 3·1	+ 4·3	+ 5·1	+ 6·4	+ 8·4	+ 8·9	**+ 9·0**	+ 7·0	+ 0·6	− 6·2	−10·6	**−12·3**	− 9·9	− 6·8	− 4·9	− 4·7	− 3·1	− 0·7	− 0·2	− 0·1	+ 1·5	+ 0·6	+ 2·4	+ 2·8
Equinox	+ 8·5	+ 8·0	+ 7·6	+ 7·6	+ 7·8	+ 6·7	+ 5·2	− 0·5	− 9·1	−17·9	**−23·4**	−22·1	−16·6	−10·4	− 4·0	− 1·3	+ 0·9	+ 2·8	+ 5·2	+ 6·6	+ 8·3	+ 8·4	+10·6	**+11·7**
Summer	+ 7·1	+ 5·8	+ 4·6	+ 4·6	+ 4·5	+ 2·0	− 4·3	−11·4	−18·5	**−23·3**	−21·4	−19·7	−15·2	− 9·7	− 2·0	+ 4·1	+10·3	+13·6	**+15·4**	+15·0	−13·4	+11·0	+ 8·9	+ 7·8

TABLE V.—*continued.*—MEAN DIURNAL INEQUALITIES OF GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE.

"All" Days.

NORTH COMPONENT.

Month and Season, 1929.	Greenwich Mean Time. Hour commencing—																							
	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 3·0	+ 3·2	+ 3·9	+ 5·5	+ 7·3	+ 7·7	+ **8·3**	+ 7·7	+ 2·6	− 4·8	−10·3	**−14·9**	−12·8	− 8·7	− 5·2	− 4·2	− 2·6	+ 0·1	+ 1·6	+ 2·7	+ 2·9	+ 2·2	+ 2·6	+ 3·0
Feb.	+ 6·2	+ 7·6	+ 7·9	+10·7	+11·0	+10·8	**+11·4**	+11·0	+ 2·5	− 6·9	−14·5	**−20·8**	−20·5	−16·3	− 8·5	− 7·4	− 5·4	− 1·4	+ 1·2	+ 0·3	+ 5·6	+ 2·7	+ 5·8	+ 7·4
Mar.	+10·2	+ 9·6	+ 7·7	+ 9·3	+ 7·5	+ 7·4	+ 5·8	+ 1·2	− 5·8	−13·1	−19·9	**−24·4**	−24·1	−16·6	− 7·5	− 5·3	− 2·6	+ 0·7	+ 5·6	+ 7·5	+10·0	+10·2	+13·4	**+15·5**
Apr.	+ 9·6	+ 9·1	+ 7·0	+ 7·0	+ 8·8	+ 8·1	+ 8·1	+ 4·4	− 4·5	−15·9	−24·8	**−27·5**	−26·3	−19·6	−11·0	− 3·0	+ 2·2	+ 5·2	+ 7·6	+ 9·6	+10·3	+10·6	+11·0	**+13·3**
May	+ 9·3	+ 7·4	+ 5·9	+ 5·6	+ 7·9	+ 7·2	+ 3·0	− 2·8	− 9·4	−16·1	−21·0	−23·3	**−24·8**	−20·6	−11·0	− 4·7	+ 3·6	+11·7	**+15·6**	+14·4	+14·0	+12·6	+ 7·8	+ 8·8
June	+ 5·4	+ 4·2	+ 3·8	+ 5·1	+ 6·3	+ 6·4	+ 1·8	− 5·1	−11·3	−17·4	−20·9	**−22·7**	−21·4	−16·8	− 8·6	+ 1·9	+ 7·3	+13·9	+15·2	**+15·3**	+13·4	+ 9·0	+ 8·7	+ 5·8
July	+ 7·3	+ 8·2	+ 6·9	+ 7·8	+ 9·7	+ 7·9	+ 1·1	− 5·8	−15·7	−24·7	**−27·8**	−25·7	−23·9	−19·9	− 9·2	− 0·5	+ 9·9	+12·5	**+18·0**	+18·0	+14·9	+12·2	+10·7	+ 8·9
Aug.	+ 9·4	+ 8·3	+ 7·3	+ 7·0	+ 6·3	+ 5·0	− 0·2	− 7·4	−15·5	−22·2	**−27·0**	−22·6	−16·2	−11·3	− 6·3	+ 0·2	+ 7·6	+10·1	+10·4	+11·9	**+12·1**	+11·4	+10·3	+10·9
Sept.	+12·4	+ 9·5	+12·2	+ 9·9	+ 9·6	+ 7·9	+ 6·0	− 0·9	− 9·5	−20·5	**−29·8**	−28·8	−21·1	−16·5	− 9·7	− 6·7	+ 1·1	+ 4·8	+ 6·9	+ 9·3	+13·9	+12·5	+13·9	**+14·0**
Oct.	+ 9·3	+ 8·9	+ 9·1	+11·3	+11·1	+ 9·8	+ 9·7	+ 7·9	+ 0·0	−10·7	−20·6	**−23·8**	−22·7	−19·0	−13·8	− 7·1	− 4·7	− 0·9	+ 3·3	+ 5·0	+ 5·8	+ 8·0	+11·1	**+11·6**
Nov.	+ 6·7	+ 5·6	+ 6·5	+ 6·3	+ 6·7	**+ 8·6**	+ 7·4	+ 6·0	+ 2·7	− 5·0	−12·6	−16·0	**−13·7**	−11·2	−10·0	− 8·5	− 4·5	− 0·2	+ 1·3	+ 1·0	+ 4·7	+ 5·9	+ 5·9	+ 7·4
Dec.	+ 5·9	+ 7·8	+ 7·4	+ 7·0	+ 9·3	+ 9·2	**+10·1**	+ 6·0	+ 0·3	− 3·8	− 7·1	− 7·1	− 9·5	− 9·0	**−10·8**	− 8·0	− 5·5	− 4·8	− 5·7	− 3·1	− 0·4	+ 2·5	+ 6·0	+ 4·4
Year	+ 7·9	+ 7·5	+ 7·1	+ 7·7	+ 8·5	+ 8·0	+ 6·0	+ 1·9	− 5·3	−13·4	−19·7	**−21·5**	−19·8	−15·5	− 9·3	− 4·4	+ 0·5	+ 4·3	+ 6·8	+ 7·7	+ 8·9	+ 8·3	+ 8·9	**+ 9·3**
Winter	+ 5·5	+ 6·1	+ 6·4	+ 7·4	+ 8·6	+ 9·1	**+ 9·3**	+ 7·7	+ 2·0	− 5·1	−11·1	**−14·7**	−14·1	−11·3	− 8·6	− 7·0	− 4·5	− 1·6	− 0·4	+ 0·2	+ 3·2	+ 3·3	+ 5·1	+ 5·6
Equinox	+10·4	+ 9·3	+ 9·0	+ 9·4	+ 9·3	+ 8·3	+ 7·4	+ 3·2	− 5·0	−15·1	−23·7	**−26·1**	−23·6	−17·9	−10·5	− 5·5	− 1·0	+ 2·5	+ 5·9	+ 7·9	+10·0	+10·3	+12·4	**+13·6**
Summer	+ 7·9	+ 7·0	+ 6·0	+ 6·4	+ 7·6	+ 6·6	+ 1·4	− 5·3	−13·0	−20·1	**−24·2**	−23·6	−21·6	−17·2	− 8·8	− 0·8	+ 7·1	+12·1	+14·8	**+14·9**	+13·6	+11·3	+ 9·4	+ 8·6

WEST COMPONENT.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	− 8·8	− 5·5	− 4·2	− 2·5	− 0·9	− 0·8	− 2·7	− 4·7	− 8·0	− 7·5	− 1·9	+ 6·7	+17·2	**+18·4**	+13·4	+ 8·2	+ 5·2	+ 5·8	+ 2·9	+ 0·5	− 4·5	− 8·8	− 8·2	**− 9·8**
Feb.	−14·9	−11·5	− 7·9	− 7·7	− 3·3	− 2·6	− 1·6	− 4·0	− 9·6	− 9·1	− 1·6	+ 9·8	+20·5	**+25·2**	+24·4	+19·9	+ 9·1	+ 6·3	+ 3·6	+ 3·9	− 7·8	−10·9	−13·2	**−16·7**
Mar.	− 9·9	− 7·0	− 6·1	− 8·0	− 5·3	− 4·5	− 7·5	−15·0	**−17·5**	−14·1	− 1·8	+16·0	+29·3	**+32·8**	+31·2	+22·1	+ 8·5	− 0·5	− 2·2	− 5·6	− 7·2	− 8·5	− 8·3	−10·4
Apr.	− 4·6	− 5·8	− 8·2	− 8·2	− 9·6	−11·5	−18·2	−26·9	**−28·8**	−21·5	− 6·1	+13·7	+29·8	**+36·2**	+32·9	+23·9	+16·0	+ 2·1	+ 2·1	+ 0·9	− 1·0	− 3·9	− 3·9	− 5·1
May	− 1·8	− 3·7	− 4·5	− 5·3	− 9·8	−17·9	−25·8	**−28·2**	−26·0	−15·0	+ 1·3	+17·7	+27·7	**+29·5**	+25·4	+19·2	+12·9	+ 7·0	+ 3·4	+ 1·4	− 1·9	− 3·8	− 1·2	− 1·3
June	− 1·7	− 2·3	− 2·4	− 7·6	−15·0	−24·0	−28·8	**−30·9**	−28·3	−19·9	− 4·6	+12·9	+25·0	+31·9	**+32·3**	+27·9	+18·1	+10·6	+ 5·7	+ 3·1	+ 2·0	+ 1·3	− 2·0	− 2·8
July	− 5·0	− 9·0	− 9·3	− 9·4	−15·4	−22·1	−26·8	**−29·6**	−29·0	−19·5	− 4·7	+12·8	+25·7	+32·8	**+34·2**	+27·7	+22·2	+12·8	+ 6·2	+ 3·5	+ 2·0	+ 1·9	+ 0·9	− 2·6
Aug.	− 3·0	− 4·6	− 6·3	− 8·5	−13·6	−18·3	−23·0	**−26·5**	−24·3	−14·1	+ 2·2	+18·4	+31·3	**+35·5**	+29·5	+19·6	+ 8·4	+ 3·0	+ 1·6	+ 0·3	− 0·0	− 1·1	− 2·9	− 4·5
Sept.	− 6·4	− 2·6	− 8·1	−11·3	− 7·5	− 9·2	−10·8	−16·8	**−19·0**	−10·4	+ 5·2	+19·0	+31·9	**+32·1**	+27·3	+12·5	+ 1·4	− 2·2	− 1·9	− 4·2	− 4·6	− 4·9	− 4·3	− 5·2
Oct.	− 9·3	− 4·4	− 1·0	− 1·9	− 0·1	+ 0·1	− 1·4	− 7·6	−13·9	−13·3	− 2·5	+14·5	+26·7	**+30·3**	+25·0	+17·3	+ 7·8	+ 1·3	− 7·1	−11·8	−13·8	**−14·1**	−10·4	− 9·3
Nov.	− 6·9	− 5·4	− 4·7	− 3·3	+ 1·2	+ 1·0	+ 0·1	− 0·6	− 4·8	− 5·2	+ 3·0	+11·9	+17·3	**+17·9**	+14·4	+ 4·8	+ 3·3	− 0·9	− 1·2	− 4·3	− 7·9	**−12·9**	− 9·6	− 6·9
Dec.	− 9·9	− 6·9	− 4·6	− 0·4	+ 4·1	+ 3·4	+ 3·2	+ 0·2	− 2·9	− 0·7	+ 4·6	+11·0	+16·7	**+17·8**	+13·2	+ 7·1	+ 7·2	+ 4·0	− 1·9	− 5·8	−11·3	−16·4	**−16·6**	−14·9
Year	− 6·9	− 5·7	− 5·6	− 6·2	− 6·3	− 8·9	−11·9	−15·9	**−17·7**	−12·5	− 0·6	+13·7	+24·9	**+28·4**	+25·3	+17·5	+10·0	+ 4·1	+ 0·9	− 1·5	− 4·7	− 6·8	− 6·6	− 7·5
Winter	−10·1	− 7·3	− 5·4	− 3·5	+ 0·3	+ 0·3	− 0·3	− 2·3	− 6·3	− 5·6	+ 1·0	+ 9·9	+17·9	**+19·8**	+16·4	+10·0	+ 6·2	+ 3·8	+ 0·9	− 1·4	− 7·9	**−12·3**	−11·9	−12·1
Equinox	− 7·6	− 5·0	− 5·9	− 7·4	− 5·6	− 6·3	− 9·5	−16·6	**−19·8**	−14·8	− 1·3	+15·8	+29·4	**+32·9**	+29·1	+19·0	+ 8·4	+ 0·2	− 2·3	− 5·2	− 6·7	− 7·9	− 6·7	− 7·5
Summer	− 2·9	− 4·9	− 5·6	− 7·7	−13·5	−20·6	−26·1	**−28·8**	−26·9	−17·1	− 1·5	+15·5	+27·4	**+32·4**	+30·4	+23·6	+15·4	+ 8·4	+ 4·2	+ 2·1	+ 0·5	− 0·4	− 1·3	− 2·8

VERTICAL COMPONENT.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 0·4	− 0·8	− 1·7	− 1·8	− 2·0	− 1·6	− 1·5	− 1·4	− 2·0	− 2·9	− 4·4	**− 7·0**	− 5·9	− 0·7	+ 2·4	+ 3·5	+ 3·8	+ 3·8	**+ 4·4**	+ 4·1	+ 3·6	+ 3·5	+ 2·7	+ 1·4
Feb.	− 5·6	− 7·1	− 7·1	− 7·6	− 6·8	− 5·3	− 4·3	− 2·3	− 1·1	− 3·4	− 6·2	**− 7·9**	− 6·5	− 2·4	+ 3·5	+ 8·7	**+12·8**	+12·2	+11·0	+11·9	+ 9·6	+ 4·5	0·0	− 1·7
Mar.	− 2·8	− 5·0	− 7·4	− 9·6	− 9·5	− 8·3	− 6·3	− 3·6	− 3·4	− 7·0	−11·5	**−13·5**	− 9·6	− 2·3	+ 5·7	+14·3	**+19·1**	+18·3	+14·7	+12·0	+ 8·8	+ 5·6	+ 2·3	− 1·3
Apr.	+ 1·6	+ 0·3	+ 0·2	+ 0·2	+ 0·2	+ 0·8	+ 2·1	+ 1·3	− 2·4	− 8·8	−14·9	**−18·8**	−18·3	−11·6	− 1·9	+ 4·3	+ 8·8	+11·5	**+12·0**	+10·3	+ 8·2	+ 6·6	+ 5·0	+ 2·6
May	+ 2·2	+ 1·2	+ 1·2	+ 1·0	+ 1·7	+ 2·6	+ 1·6	− 1·4	− 5·1	−11·4	−17·1	**−21·3**	−19·0	−10·6	− 1·6	+ 5·3	+ 9·7	+13·2	**+13·2**	+11·3	+ 9·2	+ 6·1	+ 4·9	+ 3·8
June	− 0·2	− 0·6	− 0·6	+ 0·2	+ 2·0	+ 2·0	+ 0·6	− 1·0	− 4·8	−10·9	−16·2	**−19·2**	−15·2	− 9·3	− 1·4	+ 5·8	+11·0	+14·7	**+15·3**	+12·3	+ 8·4	+ 4·5	+ 2·8	+ 0·8
July	− 1·1	− 1·9	− 2·0	− 1·2	+ 0·4	+ 1·0	0·0	− 0·4	− 3·9	− 8·3	−12·5	**−15·7**	−14·8	−10·0	− 1·7	+ 2·3	+11·0	+13·9	**+15·8**	+13·3	+ 9·8	+ 5·3	+ 2·9	− 0·8
Aug.	− 1·7	− 3·0	− 3·0	− 2·4	+ 0·7	+ 2·3	+ 2·6	+ 2·3	− 1·4	− 7·2	−14·2	**−16·3**	−13·6	− 8·1	+ 0·3	+ 7·8	+11·6	**+11·9**	+11·1	+ 8·8	+ 6·3	+ 3·7	+ 1·8	0·0
Sept.	− 2·0	− 4·8	− 5·2	− 4·0	− 2·8	− 2·2	− 0·4	+ 0·2	− 2·7	− 7·8	−11·9	**−13·3**	− 9·7	− 4·4	+ 2·2	+ 8·6	+12·4	**+13·3**	+11·2	+10·2	+ 6·9	+ 4·2	+ 1·6	− 1·0
Oct.	− 2·9	− 5·1	− 6·1	− 6·3	− 5·4	− 4·7	− 3·2	− 0·7	− 0·7	− 3·9	− 8·8	**−10·9**	− 6·9	− 1·8	+ 3·9	+ 9·4	+12·3	**+12·3**	+11·4	+10·0	+ 6·7	+ 4·1	+ 0·9	− 0·9
Nov.	− 3·1	− 3·3	− 4·1	− 4·4	− 4·0	− 3·6	− 4·2	− 4·0	− 3·3	− 6·2	**− 8·1**	− 7·7	− 3·4	+ 1·2	+ 5·0	+ 9·5	**+10·2**	+ 9·4	+ 8·4	+ 7·9	+ 5·7	+ 2·8	+ 0·9	− 1·0
Dec.	− 1·7	− 4·4	− 6·5	− 6·6	**− 8·0**	− 7·3	− 5·8	− 4·9	− 4·8	− 5·1	− 4·9	− 5·5	− 3·7	+ 2·0	+ 6·1	+ 9·1	+ 9·5	+ 9·6	**+ 9·9**	+ 8·7	+ 7·4	+ 5·1	+ 3·3	− 0·1
Year	− 1·4	− 2·9	− 3·5	− 3·5	− 2·8	− 2·0	− 1·6	− 1·3	− 3·0	− 6·9	−10·9	**−13·1**	−10·6	− 4·8	+ 1·9	+ 7·4	+11·0	**+12·0**	+11·5	+10·1	+ 7·6	+ 4·7	+ 2·4	+ 0·2
Winter	− 2·5	− 3·9	− 4·9	− 5·1	− 5·2	− 4·5	− 4·0	− 3·2	− 2·8	− 4·4	− 5·9	**− 7·0**	− 4·9	+ 0·0	+ 4·3	+ 7·7	**+ 9·1**	+ 8·8	+ 8·4	+ 8·2	+ 6·6	+ 4·0	+ 1·7	− 0·4
Equinox	− 1·5	− 3·7	− 4·6	− 4·9	− 4·4	− 3·6	− 2·0	− 0·7	− 2·3	− 6·9	−11·8	**−14·1**	−11·1	− 5·0	+ 2·5	+ 9·2	+13·2	**+13·9**	+12·3	+10·6	+ 7·7	+ 5·1	+ 2·5	− 0·2
Summer	− 0·2	− 1·1	− 1·1	− 0·6	+ 1·2	+ 2·0	+ 1·2	− 0·1	− 3·8	− 9·5	−15·0	**−18·1**	−15·7	− 9·5	− 1·1	+ 5·3	+10·8	+13·4	**+13·9**	+11·4	+ 8·4	+ 4·9	+ 3·1	+ 1·0

TABLE VI.—MEAN DIURNAL INEQUALITIES OF THE MAGNETIC ELEMENTS—DECLINATION, INCLINATION AND HORIZONTAL FORCE.

International Quiet Days.

DECLINATION WEST.

Greenwich Mean Time. Hour commencing—

Month and Season, 1929.	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−1·32	−0·66	−0·50	−0·50	−0·42	−0·46	−0·96	−1·22	**−1·78**	−1·46	−0·62	+0·96	+2·76	**+3·00**	+2·08	+1·22	+0·82	+0·88	+0·62	0·00	−0·36	−0·72	−0·72	−0·60
Feb.	−0·44	−0·40	−0·32	−0·42	−0·64	−1·16	−1·26	−2·00	**−3·14**	−2·90	−0·92	+1·40	+3·30	**+3·84**	+3·12	+1·88	+0·76	+0·60	+0·38	+0·08	−0·24	−0·52	−0·54	−0·54
Mar.	−0·70	+0·08	−0·84	−1·08	−1·62	−2·04	−2·72	−3·40	**−3·72**	−2·46	+0·26	+3·48	+5·54	**+5·68**	+4·52	+2·26	+0·42	−0·20	+0·02	−0·30	−0·80	−0·30	−0·02	−1·12
Apr.	−0·40	−0·18	−0·82	−1·24	−1·50	−2·14	−3·42	−5·04	**−5·20**	−3·60	−0·44	+3·04	+5·60	**+6·48**	+5·36	+3·30	+1·60	+0·46	−0·32	−0·22	−0·30	−0·14	−0·32	−0·32
May	+0·15	−0·63	−1·01	−1·25	−2·19	−3·99	−5·33	**−5·57**	−4·93	−2·89	+0·89	+3·97	**+5·81**	+5·57	+4·43	+3·07	+1·87	+0·91	+0·41	+0·41	+0·07	+0·13	+0·17	−0·05
June	−0·05	−0·13	−0·43	−1·17	−2·69	−4·27	−5·47	**−5·59**	−4·65	−2·69	−0·03	+2·79	+4·87	**+5·63**	+5·53	+4·21	+2·19	+0·89	+0·23	−0·03	+0·07	+0·23	+0·25	+0·21
July	−0·35	−0·65	−0·57	−1·11	−2·51	−3·97	−4·73	**−5·25**	−4·73	−2·83	−0·51	+2·51	+4·65	+5·87	**+6·01**	+4·59	+2·81	+1·41	+0·75	+0·29	+0·15	+0·11	−0·07	−0·33
Aug.	−1·02	−1·14	−1·08	−1·50	−2·62	−3·92	−4·38	**−4·68**	−4·16	−2·12	+0·68	+3·78	+5·84	**+6·62**	+5·62	+3·48	+1·64	+0·20	−0·16	+0·06	−0·16	−0·30	−0·42	−0·86
Sept.	−1·00	−0·96	−1·26	−1·56	−1·96	−2·50	−3·44	**−4·08**	−3·56	−1·18	+2·10	+4·94	**+6·38**	+6·12	+3·88	+1·52	+0·12	−0·18	−0·10	−0·14	−0·54	−0·74	−0·84	−1·22
Oct.	−0·46	−0·70	−0·78	−0·78	−0·84	−1·20	−1·52	−2·76	**−3·66**	−2·96	−0·68	+2·42	+4·32	**+4·62**	+3·96	+2·26	+1·06	+0·64	−0·18	+0·20	−0·28	−1·08	−1·04	−0·56
Nov.	−0·84	−0·60	−0·64	−0·50	−0·52	−0·86	−1·18	−1·50	**−2·04**	−1·46	+0·30	+2·02	**+2·78**	+2·50	+2·20	+1·38	+1·20	+0·66	−0·04	−0·28	−0·38	−0·72	−0·90	−0·62
Dec.	−0·64	−0·76	−0·34	−0·26	−0·30	−0·44	−0·84	−1·26	**−1·48**	−1·04	+0·20	+1·76	**+3·20**	+2·92	+1·94	+1·52	+0·96	+0·30	−0·22	−0·72	−0·80	−1·16	−1·32	−1·26
Year	−0·59	−0·56	−0·72	−0·95	−1·48	−2·25	−2·94	−3·53	**−3·59**	−2·30	+0·10	+2·76	+4·59	**+4·90**	+4·05	+2·56	+1·29	+0·55	+0·12	−0·05	−0·30	−0·43	−0·48	−0·61
Winter	−0·81	−0·61	−0·45	−0·42	−0·47	−0·73	−1·06	−1·50	**−2·11**	−1·72	−0·26	+1·54	+3·01	**+3·07**	+2·34	+1·50	+0·94	+0·61	+0·19	−0·23	−0·45	−0·78	−0·87	−0·76
Equinox	−0·64	−0·44	−0·93	−1·17	−1·48	−1·97	−2·78	−3·82	**−4·04**	−2·55	+0·31	+3·47	+5·46	**+5·73**	+4·43	+2·34	+0·80	+0·18	−0·15	−0·12	−0·48	−0·57	−0·56	−0·81
Summer	−0·32	−0·64	−0·77	−1·26	−2·50	−4·04	−4·98	**−5·27**	−4·62	−2·63	+0·26	+3·26	+5·29	**+5·92**	+5·40	+3·84	+2·13	+0·85	+0·31	+0·18	+0·03	+0·04	−0·02	−0·26

INCLINATION.

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	+0·08	+0·06	0·00	−0·12	−0·23	−0·35	−0·38	−0·30	−0·14	+0·26	+0·55	**+0·74**	+0·64	+0·44	+0·36	+0·25	+0·06	−0·10	−0·27	−0·43	**−0·45**	−0·31	−0·24	−0·16
Feb.	−0·30	−0·30	−0·38	−0·41	−0·60	**−0·61**	−0·60	−0·49	+0·24	+0·87	+1·25	**+1·39**	+1·11	+0·63	+0·43	+0·11	−0·03	−0·18	−0·29	−0·28	−0·36	−0·39	−0·46	−0·44
Mar.	−0·22	−0·45	−0·39	−0·10	−0·17	−0·12	0·00	+0·07	+0·37	+0·76	**+1·00**	+0·85	+0·59	+0·17	+0·01	+0·26	+0·23	+0·10	−0·30	−0·41	−0·31	−0·60	−0·67	**−0·72**
Apr.	−0·13	−0·18	−0·16	0·00	−0·02	−0·11	0·00	+0·20	+0·56	+0·98	**+1·11**	+0·94	+0·37	−0·03	−0·17	−0·31	−0·33	−0·33	−0·25	−0·32	−0·34	−0·46	−0·44	**−0·56**
May	−1·04	−0·75	−0·47	−0·42	−0·32	−0·15	+0·20	+0·60	**+0·68**	+0·57	+0·37	+0·42	+0·28	+0·38	+0·13	−0·18	−0·56	−0·98	**−1·21**	−1·07	−1·00	−1·06	−0·90	−0·86
June	−0·14	−0·23	−0·10	−0·09	−0·19	−0·11	+0·19	+0·66	**+0·96**	+0·94	+0·84	+0·67	+0·46	+0·38	−0·13	**−0·56**	−0·44	−0·46	−0·38	−0·47	−0·51	−0·50	−0·48	−0·36
July	−0·33	−0·16	−0·17	−0·23	−0·20	−0·06	+0·28	+0·76	+1·07	**+1·28**	+1·24	+1·00	+0·70	+0·55	+0·32	−0·08	−0·40	−0·41	−0·74	**−0·94**	−0·90	−0·80	−0·86	−0·88
Aug.	−0·36	−0·40	−0·38	−0·49	−0·32	−0·03	+0·24	+0·72	+1·24	**+1·50**	+1·39	+0·98	+0·59	+0·22	+0·18	−0·01	−0·22	−0·50	−0·68	**−0·88**	−0·78	−0·71	−0·69	−0·62
Sept	−0·27	−0·25	−0·21	−0·21	−0·12	+0·06	+0·31	+0·80	+1·15	**+1·32**	+1·21	+0·71	+0·06	−0·27	−0·21	−0·06	−0·04	−0·35	−0·55	**−0·69**	**−0·69**	−0·64	−0·67	−0·53
Oct.	−0·36	−0·36	−0·32	−0·28	−0·37	−0·50	−0·41	+0·01	+0·52	+0·94	**+1·13**	+1·10	+0·85	+0·41	+0·10	+0·20	+0·04	−0·15	−0·30	−0·35	−0·42	−0·38	**−0·57**	**−0·57**
Nov.	+0·04	−0·04	−0·11	−0·21	−0·35	−0·37	−0·31	−0·21	+0·24	+0·69	**+0·91**	+0·82	+0·62	+0·44	+0·52	+0·42	+0·23	−0·17	−0·42	−0·57	**−0·66**	−0·58	−0·52	−0·45
Dec.	+0·04	+0·05	+0·07	+0·01	−0·17	−0·33	**−0·38**	−0·35	−0·09	+0·40	**+0·57**	+0·41	+0·25	+0·33	+0·32	+0·25	+0·19	−0·02	−0·19	−0·36	**−0·38**	−0·28	−0·22	−0·19
Year	−0·25	−0·25	−0·22	−0·21	−0·26	−0·22	−0·07	+0·21	+0·57	+0·88	**+0·96**	+0·84	+0·54	+0·30	+0·16	+0·02	−0·11	−0·30	−0·47	−0·56	**−0·57**	−0·56	−0·56	−0·53
Winter	−0·04	−0·06	−0·11	−0·18	−0·34	−0·42	−0·42	−0·34	+0·06	+0·56	+0·82	**+0·84**	+0·66	+0·46	+0·41	+0·26	+0·11	−0·12	−0·29	−0·41	**−0·46**	−0·39	−0·36	−0·31
Equinox	−0·25	−0·31	−0·27	−0·15	−0·17	−0·17	−0·03	+0·27	+0·65	+1·00	**+1·11**	+0·90	+0·47	+0·07	−0·07	+0·02	−0·03	−0·18	−0·35	−0·44	−0·44	−0·52	−0·59	**−0·60**
Summer	−0·47	−0·39	−0·28	−0·31	−0·26	−0·09	+0·23	+0·69	+0·99	**+1·07**	+0·96	+0·77	+0·51	+0·38	+0·13	−0·21	−0·41	−0·59	−0·75	**−0·84**	−0·80	−0·77	−0·73	−0·68

HORIZONTAL FORCE.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	− 0·6	− 0·8	+ 0·2	+ 2·0	+ 3·6	+ 5·6	+ 5·8	+ 4·6	+ 1·4	− 5·0	− 9·4	**−13·4**	−12·0	− 7·2	− 4·4	− 2·4	+ 0·2	+ 2·4	+ 5·0	+ **7·2**	+ **7·2**	+ 5·0	+ 3·6	+ 2·4
Feb.	+ 4·8	+ 4·4	+ 5·6	+ 6·0	+ 8·8	**+ 9·2**	+ 9·0	+ 8·0	− 2·2	−13·2	−20·2	**−23·0**	−18·6	−10·6	− 6·4	− 1·0	+ 1·2	+ 3·4	+ 5·0	+ 5·0	+ 6·2	+ 6·4	+ 7·0	+ 6·4
Mar.	+ 3·9	+ 6·7	+ 5·1	+ 1·3	+ 2·7	+ 2·7	+ 1·3	+ 0·3	− 5·3	−12·9	**−19·1**	−18·9	−13·5	− 5·5	− 0·3	− 1·9	− 0·3	+ 1·1	+ 6·5	+ 8·1	+ 6·3	+10·3	+10·9	**+11·1**
Apr.	+ 4·3	+ 4·7	+ 4·3	+ 2·1	+ 2·3	+ 3·7	+ 2·3	− 1·1	− 8·1	−18·1	**−23·5**	−22·7	−14·3	− 5·7	+ 0·3	+ 4·7	+ 6·7	+ 7·9	+ 7·1	+ 7·7	+ 7·3	+ 8·9	+ 8·3	+ **9·9**
May	+16·6	+12·2	+ 8·4	+ 8·2	+ 7·8	+ 5·6	+ 0·2	− 7·2	−11·0	−13·0	−12·6	**−13·8**	−10·0	− 8·8	− 3·2	+ 3·0	+10·4	+17·6	**+20·8**	+18·0	+16·2	+16·4	+14·0	+13·2
June	+ 3·4	+ 4·6	+ 2·6	+ 3·0	+ 5·0	+ 3·2	− 2·2	− 9·2	−14·8	−17·4	**−18·6**	−18·0	−13·8	−10·0	+ 0·8	+ 9·4	+ 9·0	**+10·6**	+ 9·6	+10·2	+ 9·6	+ 8·8	+ 8·0	+ 6·2
July	+ 5·2	+ 2·6	+ 3·0	+ 4·4	+ 5·2	+ 3·4	− 2·4	−10·4	−16·8	−22·8	**−24·2**	−22·2	−16·6	−13·2	− 6·6	+ 1·8	+ 8·4	+ 9·8	+15·2	**+17·8**	+16·2	+13·6	+14·0	+13·6
Aug.	+ 6·4	+ 6·8	+ 6·8	+ 8·4	+ 6·8	+ 3·2	− 0·8	− 8·8	−18·8	−25·2	**−26·2**	−21·2	−15·6	− 8·2	− 4·2	+ 1·8	+ 5·8	+10·2	+12·8	**+15·0**	+13·0	+11·4	+10·8	+ 9·8
Sept.	+ 5·0	+ 4·8	+ 4·2	+ 4·0	+ 3·0	+ 0·8	− 2·6	−10·0	−16·8	−22·2	**−22·8**	−16·8	− 6·2	+ 1·2	+ 2·8	+ 2·6	+ 2·8	+ 7·0	+ 9·0	+11·2	**+11·2**	+10·2	+10·6	+ 8·4
Oct.	+ 5·7	+ 5·5	+ 4·7	+ 4·3	+ 5·7	+ 7·7	+ 6·7	+ 1·3	− 6·1	−14·3	−19·7	**−21·3**	−16·7	− 8·7	− 2·7	− 2·3	+ 0·7	+ 3·5	+ 5·9	+ 6·7	+ 7·5	+ 7·1	+ **9·9**	+ 9·7
Nov.	− 0·2	+ 0·8	+ 1·8	+ 3·2	+ 5·2	+ 5·6	+ 4·8	+ 3·4	− 3·4	−11·0	**−15·4**	−14·2	−11·0	− 7·4	− 7·6	− 5·2	− 2·4	+ 3·2	+ 7·0	+ 9·2	**+10·4**	+ 8·8	+ 7·8	+ 6·4
Dec.	− 0·2	− 0·4	− 0·8	+ 0·4	+ 3·0	+ 5·2	+ 5·8	+ 5·0	+ 0·4	− 7·6	**−10·8**	− 9·6	− 6·0	− 5·2	− 3·6	− 2·4	− 1·0	+ 2·2	+ 4·0	+ **6·2**	+ **6·2**	+ 4·0	+ 3·0	+ 2·4
Year	+ 4·5	+ 4·3	+ 3·8	+ 3·9	+ 4·9	+ 4·7	+ 2·3	− 2·0	− 8·5	−15·2	**−18·5**	−17·9	−12·9	− 7·4	− 2·9	+ 0·7	+ 3·5	+ 6·6	+ 9·0	**+10·2**	+ 9·8	+ 9·2	+ 9·0	+ 8·3
Winter	+ 1·0	+ 1·0	+ 1·7	+ 2·9	+ 5·2	+ 6·4	+ 6·4	+ 5·3	− 1·0	− 9·2	−14·0	**−15·1**	−11·9	− 7·6	− 5·5	− 2·8	− 0·5	+ 2·8	+ 5·3	+ 6·9	+ **7·5**	+ 6·1	+ 5·4	+ 4·4
Equinox	+ 4·7	+ 5·4	+ 4·6	+ 2·9	+ 3·4	+ 3·7	+ 1·9	− 2·4	− 9·1	−16·9	**−21·3**	−19·9	−12·7	− 4·7	+ 0·0	+ 0·8	+ 2·5	+ 4·9	+ 7·1	+ 8·4	+ 8·1	+ 9·1	+ **9·9**	+ 9·8
Summer	+ 7·9	+ 6·6	+ 5·2	+ 6·0	+ 6·2	+ 3·9	− 1·3	− 8·9	−15·4	−19·6	**−20·4**	−18·8	−14·0	−10·1	− 3·3	+ 4·0	+ 8·4	+12·1	+14·6	**+15·3**	+13·8	+12·6	+11·7	+10·7

TABLE VI.—*continued.*—MEAN DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE.

International Quiet Days.

NORTH COMPONENT.

Month and Season, 1929.	Greenwich Mean Time. Hour commencing— 0.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 1·0	− 0·0	+ 0·8	+ 2·5	+ 4·0	+ 6·0	+ 6·8	+ 5·9	+ 3·5	− 3·2	− 8·4	−14·2	**−14·9**	−10·5	− 6·7	− 3·8	− 0·8	+ 1·3	+ 4·2	+ 7·0	**+ 7·5**	+ 5·7	+ 4·4	+ 3·0
Feb.	+ 5·2	+ 4·8	+ 5·8	+ 6·4	+ 9·3	**+10·3**	+10·3	+10·2	+ 1·5	− 9·5	−18·6	**−24·1**	−22·0	−14·8	− 9·9	− 3·2	+ 0·3	+ 2·6	+ 4·4	+ 4·8	+ 6·3	+ 6·9	+ 7·5	+ 6·9
Mar.	+ 4·6	+ 6·5	+ 6·0	+ 2·5	+ 4·5	+ 5·0	+ 4·5	+ 4·3	− 0·8	− 9·7	−19·0	**−22·5**	−19·7	−12·0	− 5·6	− 4·5	− 0·8	+ 1·3	+ 6·3	+ 8·3	+ 7·1	+10·4	+10·7	**+12·1**
Apr.	+ 4·7	+ 4·8	+ 5·2	+ 3·5	+ 4·0	+ 6·1	+ 6·2	+ 4·8	− 1·6	−13·5	−22·4	**−25·7**	−20·5	−13·1	− 6·0	+ 0·7	+ 4·7	+ 7·2	+ 7·3	+ 7·8	+ 7·5	+ 8·9	+ 8·5	**+10·0**
May	+16·0	+12·7	+ 9·4	+ 9·5	+10·2	+10·1	+ 6·4	− 0·5	− 5·0	− 9·3	−13·3	**−18·1**	−16·6	−15·1	− 8·3	− 0·7	+ 8·0	+16·1	**+19·8**	+17·1	+15·7	+15·9	+13·5	+12·9
June	+ 3·4	+ 4·6	+ 3·0	+ 4·3	+ 8·0	+ 8·1	+ 4·3	− 2·4	− 9·0	−13·8	−18·1	**−20·8**	−19·2	−16·4	− 5·7	+ 4·2	+ 6·2	+ 9·3	+ 9·1	**+10·0**	+ 9·3	+ 8·3	+ 7·5	+ 5·8
July	+ 5·5	+ 3·3	+ 3·6	+ 5·6	+ 8·0	+ 8·0	+ 3·2	− 4·0	−10·9	−18·9	−23·0	**−24·6**	−21·6	−19·8	−13·5	− 3·6	+ 4·9	+ 7·9	+14·0	**+17·0**	+15·6	+13·1	+13·7	+13·7
Aug.	+ 7·4	+ 8·0	+ 7·9	+10·0	+ 9·7	+ 7·7	+ 4·4	− 3·1	−13·5	−22·1	**−26·4**	−25·1	−22·1	−15·8	−10·7	− 2·3	+ 3·7	+ 9·7	+12·7	**+14·6**	+12·9	+11·5	+11·0	+10·6
Sept.	+ 6·1	+ 5·8	+ 5·6	+ 5·7	+ 5·2	+ 3·7	+ 1·5	− 5·0	−12·2	−20·3	**−24·7**	−22·2	−13·5	− 6·0	− 1·8	+ 0·8	+ 2·6	+ 7·0	+ 8·9	+11·1	**+11·6**	+10·8	+11·3	+ 9·6
Oct.	+ 6·1	+ 6·2	+ 5·5	+ 5·1	+ 6·5	+ 8·9	+ 8·3	+ 4·5	− 1·7	−10·5	−18·4	**−23·6**	−21·4	−13·9	− 7·3	− 4·9	− 0·6	+ 2·7	+ 6·0	+ 6·3	+ 7·7	+ 8·2	**+10·9**	+10·1
Nov.	+ 0·8	+ 1·5	+ 2·5	+ 3·7	+ 5·7	+ 6·5	+ 6·1	+ 5·1	− 0·7	− 9·0	−15·4	**−16·2**	−14·0	−10·2	−10·0	− 6·7	− 3·8	+ 2·4	+ 6·9	+ 9·3	**+10·6**	+ 9·4	+ 8·7	+ 7·0
Dec.	+ 0·6	+ 0·5	− 0·4	+ 0·7	+ 3·3	+ 5·6	+ 6·6	+ 6·4	+ 2·1	− 6·2	−10·8	**−11·4**	− 9·6	− 8·5	− 5·8	− 4·1	− 2·1	+ 1·8	+ 4·2	+ 6·9	**+ 7·0**	+ 5·3	+ 4·5	+ 3·8
Year	+ 5·1	+ 4·9	+ 4·6	+ 5·0	+ 6·5	+ 7·2	+ 5·7	+ 2·2	− 4·0	−12·2	−18·2	**−20·7**	−17·9	−13·0	− 7·6	− 2·3	+ 1·9	+ 5·8	+ 8·7	**+10·0**	+ 9·9	+ 9·5	+ 9·4	+ 8·8
Winter	+ 1·9	+ 1·7	+ 2·2	+ 3·3	+ 5·6	+ 7·1	+ 7·5	+ 6·9	+ 1·6	− 7·0	−13·3	**−16·5**	−15·1	−11·0	− 8·1	− 4·5	− 1·6	+ 2·0	+ 4·9	+ 7·0	**+ 7·9**	+ 6·8	+ 6·3	+ 5·2
Equinox	+ 5·4	+ 5·8	+ 5·6	+ 4·2	+ 5·1	+ 5·9	+ 5·1	+ 2·2	− 4·1	−13·5	−21·1	**−23·5**	−18·8	−11·3	− 5·2	− 2·0	+ 1·5	+ 4·6	+ 7·1	+ 8·4	+ 8·5	+ 9·6	+10·4	**+10·5**
Summer	+ 8·1	+ 7·2	+ 6·0	+ 7·4	+ 9·0	+ 8·5	+ 4·6	− 2·5	− 9·6	−16·0	−20·2	**−22·2**	−19·9	−16·8	− 9·6	− 0·6	+ 5·7	+10·8	+13·9	**+14·7**	+13·4	+12·2	+11·4	+10·8

WEST COMPONENT.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	− 7·1	− 3·7	− 2·6	− 2·2	− 1·4	− 1·2	− 3·8	− 5·5	**− 9·1**	− 8·8	− 5·3	+ 2·2	+12·0	**+14·3**	+10·0	+ 5·9	+ 4·4	+ 5·2	+ 4·4	+ 1·6	− 0·3	− 2·7	− 3·0	− 2·7
Feb.	− 1·3	− 1·2	− 0·5	− 0·9	− 1·5	− 4·1	− 4·7	− 8·8	−17·1	**−18·2**	− 9·2	+ 2·4	+13·4	**+18·0**	+15·1	+ 9·7	+ 4·3	+ 3·9	+ 3·1	+ 1·5	+ 0·1	− 1·4	− 1·3	− 1·5
Mar.	− 2·9	+ 1·9	− 3·3	− 5·4	− 8·0	−10·2	−14·1	−17·9	**−20·8**	−15·8	− 2·8	+14·3	+26·3	**+28·8**	+23·8	+11·5	+ 2·2	− 0·8	+ 1·5	+ 0·2	− 2·9	+ 0·6	+ 2·2	− 3·5
Apr.	− 1·2	+ 0·1	− 3·4	− 6·1	− 7·4	−10·5	−17·6	−26·9	**−30·3**	−22·9	− 7·4	+11·2	+26·5	**+33·0**	+28·4	+18·5	+ 9·9	+ 4·1	− 0·2	+ 0·5	− 0·0	+ 1·2	+ 0·1	+ 0·5
May	+ 4·4	− 0·7	− 3·5	− 4·8	− 9·9	−19·9	−28·1	**−31·0**	−28·4	−18·1	+ 2·0	+18·0	**+28·5**	+27·5	+22·7	+16·9	+12·1	+ 8·6	+ 6·7	+ 6·1	+ 3·9	+ 4·2	+ 3·9	+ 2·6
June	+ 0·5	+ 0·3	− 1·7	− 5·5	−13·1	−21·9	−29·4	**−31·5**	−27·8	−18·0	− 4·2	+10·9	+22·7	+27·6	**+29·4**	+24·3	+13·5	+ 7·0	+ 3·3	+ 2·0	+ 2·4	+ 3·1	+ 3·1	+ 2·5
July	− 0·7	− 2·9	− 2·4	− 4·9	−12·1	−20·2	−25·5	**−30·0**	−28·6	−19·9	− 7·9	+ 8·5	+21·0	+28·2	**+30·3**	+24·6	+16·7	+ 9·6	+ 7·2	+ 5·4	+ 4·3	+ 3·5	+ 2·7	+ 1·2
Aug.	− 4·0	− 4·6	− 4·2	− 6·1	−12·4	−20·0	−23·3	**−26·6**	−26·0	−16·6	− 2·1	+15·4	+27·5	**+33·2**	+28·8	+18·8	+ 9·9	+ 3·3	+ 1·9	+ 3·6	+ 2·0	+ 0·9	+ 0·1	− 2·4
Sept.	− 4·2	− 4·0	− 5·8	− 7·4	− 9·7	−13·0	−18·7	**−23·7**	−22·4	−11·0	+ 6·2	+22·5	+32·4	**+32·6**	+21·1	+ 8·6	+ 1·2	+ 0·6	+ 1·4	+ 1·7	− 0·4	− 1·7	− 2·2	− 4·6
Oct.	− 1·2	− 2·5	− 3·1	− 3·2	− 3·2	− 4·7	− 6·6	−14·3	**−20·7**	−18·7	− 7·9	+ 8·2	+19·2	**+22·5**	+20·3	+11·4	+ 5·8	+ 4·1	+ 0·3	+ 2·5	+ 0·1	− 4·2	− 3·4	− 0·9
Nov.	− 4·5	− 3·0	− 3·0	− 2·0	− 1·6	− 3·3	− 5·2	− 7·2	**−11·5**	−10·1	− 1·8	+ 7·6	**+12·3**	+11·6	+10·0	+ 6·2	+ 5·8	+ 4·2	+ 1·3	+ 0·5	+ 0·2	− 1·9	− 3·1	− 1·9
Dec.	− 3·4	− 4·1	− 2·0	− 1·3	− 0·9	− 1·2	− 3·2	− 5·6	**− 7·7**	− 7·1	− 1·3	+ 7·2	**+15·6**	+14·3	+ 9·5	+ 7·5	+ 4·9	+ 2·1	− 0·3	− 2·5	− 2·9	− 5·3	− 6·3	− 6·1
Year	− 2·1	− 2·0	− 3·0	− 4·2	− 6·8	−10·9	−15·0	−19·1	**−20·9**	−15·4	− 3·5	+10·7	+21·5	**+24·3**	+20·8	+13·7	+ 7·6	+ 4·3	+ 2·6	+ 1·9	+ 0·5	− 0·3	− 0·6	− 1·4
Winter	− 4·1	− 3·0	− 2·0	− 1·6	− 1·4	− 2·5	− 4·2	− 6·8	**−11·4**	−11·1	− 4·4	+ 4·9	+13·3	**+14·6**	+11·2	+ 7·3	+ 4·9	+ 3·9	+ 2·1	+ 0·3	− 0·7	− 2·8	− 3·4	− 3·1
Equinox	− 2·4	− 1·1	− 3·9	− 5·5	− 7·1	− 9·6	−14·3	−20·7	**−23·6**	−17·1	− 3·0	+14·1	+26·1	**+29·2**	+23·4	+12·5	+ 4·8	+ 2·0	+ 0·8	+ 1·2	− 0·8	− 1·0	− 0·8	− 2·1
Summer	+ 0·1	− 2·0	− 3·0	− 5·3	−11·9	−20·5	−26·6	**−29·8**	−27·7	−18·2	− 3·1	+13·2	+24·9	**+29·1**	+27·8	+21·2	+13·1	+ 7·1	+ 4·8	+ 4·3	+ 3·2	+ 2·9	+ 2·5	+ 1·0

VERTICAL COMPONENT.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 1·4	+ 0·4	+ 0·2	+ 0·4	+ 0·4	+ 1·0	+ 0·4	+ 0·2	− 1·6	− 2·6	− 2·8	− 5·6	**− 5·8**	− 1·8	+ 2·2	**+ 3·2**	+ 2·4	+ 2·0	+ 2·4	+ 2·0	+ 1·2	+ 1·0	0·0	0·0
Feb.	+ 0·6	0·0	0·0	− 0·4	− 0·2	− 0·4	+ 0·4	+ 1·8	**+ 3·2**	− 0·6	− 3·6	**− 5·4**	− 4·8	− 2·8	0·0	+ 1·4	+ 1·8	+ 1·8	+ 1·8	+ 2·2	+ 2·0	+ 1·2	+ 0·4	− 0·4
Mar.	+ 1·5	− 0·1	− 1·7	− 0·5	+ 0·5	+ 1·9	+ 3·3	+ 3·1	+ 0·5	− 3·7	−10·1	**−14·3**	−11·1	− 6·9	− 0·5	+ 4·5	+ 7·1	**+ 5·7**	+ 4·7	+ 4·7	+ 3·7	+ 3·1	+ 2·1	+ 1·1
Apr.	+ 5·5	+ 4·9	+ 4·3	+ 4·7	+ 4·9	+ 4·9	+ 5·5	+ 4·3	+ 0·3	− 8·3	−16·1	−20·1	**−20·3**	−13·9	− 5·1	+ 0·5	+ 4·1	+ 6·9	**+ 7·9**	+ 6·9	+ 5·3	+ 4·7	+ 4·1	+ 3·9
May	+ 2·7	+ 2·3	+ 3·3	+ 4·5	+ 7·1	**+ 7·9**	+ 7·1	+ 3·9	− 1·9	−10·5	−16·5	**−17·3**	−13·3	− 7·3	− 3·1	+ 0·7	+ 4·9	+ 7·3	+ 6·5	+ 4·9	+ 3·1	+ 1·7	+ 1·3	+ 0·9
June	+ 3·2	+ 2·8	+ 2·8	+ 3·8	+ 5·2	+ 3·6	+ 1·4	+ 1·2	− 1·4	− 7·8	−14·0	**−18·4**	−16·2	−10·0	− 2·8	+ 2·4	+ 5·8	+ 8·4	**+ 9·2**	+ 7·4	+ 4·8	+ 3·2	+ 2·2	+ 2·0
July	+ 0·6	+ 0·6	+ 1·0	+ 2·4	+ 5·0	+ 5·8	+ 4·2	+ 2·2	− 2·2	− 8·8	−13·2	**−17·2**	−14·4	−11·8	− 4·0	+ 1·2	+ 5·8	+ 8·4	**+ 9·6**	+ 8·8	+ 6·6	+ 4·2	+ 2·8	+ 1·4
Aug.	+ 2·5	+ 2·1	+ 2·7	+ 2·7	+ 4·7	**+ 6·5**	**+ 6·5**	+ 4·3	− 0·9	− 6·9	−12·9	−15·3	**−15·9**	−11·3	− 3·5	+ 3·9	+ 5·7	**+ 6·5**	+ 6·1	+ 4·3	+ 3·3	+ 1·9	+ 1·5	+ 1·5
Sept.	+ 2·4	+ 2·4	+ 2·4	+ 2·2	+ 2·6	+ 3·6	+ 4·4	+ 4·6	+ 0·8	− 6·0	−11·2	**−14·4**	−12·2	− 6·4	− 0·6	+ 4·2	**+ 5·0**	+ 4·0	+ 2·0	+ 2·2	+ 2·0	+ 1·8	+ 1·4	+ 1·4
Oct.	+ 0·8	+ 0·4	− 0·0	+ 0·2	+ 0·4	+ 0·6	+ 1·4	+ 3·4	**+ 3·6**	− 0·6	− 6·8	**−11·6**	− 9·6	− 6·0	− 2·8	+ 1·2	+ 3·2	+ 3·2	**+ 3·4**	+ 3·4	+ 3·2	+ 3·4	+ 3·4	+ 2·8
Nov.	+ 1·0	+ 0·4	+ 0·4	+ 0·2	+ 0·0	+ 0·4	+ 0·2	+ 0·6	+ 0·8	− 1·8	− 4·4	**− 4·8**	− 4·0	− 2·0	+ 0·4	**+ 2·4**	**+ 2·4**	+ 1·8	+ 1·6	+ 1·8	+ 1·2	+ 0·4	+ 0·4	− 0·6
Dec.	+ 1·0	+ 0·6	+ 0·6	+ 1·4	+ 1·0	+ 0·8	+ 0·4	− 0·4	− 2·2	− 3·6	− 5·4	**− 8·2**	− 5·0	− 0·6	+ 2·6	+ 3·2	+ 4·2	**+ 4·4**	+ 2·8	+ 2·2	+ 1·2	− 0·2	− 0·6	− 1·0
Year	+ 1·9	+ 1·4	+ 1·3	+ 1·8	+ 2·6	+ 3·1	+ 2·9	+ 2·4	− 0·1	− 5·1	− 9·8	**−12·7**	−11·1	− 6·7	− 1·4	+ 2·4	+ 4·4	**+ 5·0**	+ 4·8	+ 4·2	+ 3·1	+ 2·2	+ 1·6	+ 1·1
Winter	+ 1·0	+ 0·4	+ 0·3	+ 0·4	+ 0·3	+ 0·5	+ 0·4	+ 0·6	+ 0·1	− 2·2	− 4·1	**− 6·0**	− 4·9	− 1·8	+ 1·3	+ 2·6	**+ 2·7**	+ 2·5	+ 2·2	+ 2·1	+ 1·4	+ 0·6	+ 0·1	− 0·5
Equinox	+ 2·6	+ 1·9	+ 1·3	+ 1·7	+ 2·1	+ 2·8	+ 3·7	+ 3·9	+ 1·3	− 4·7	−11·1	**−15·1**	−13·3	− 8·3	− 2·3	+ 2·6	+ 4·9	**+ 5·0**	+ 4·5	+ 4·3	**+ 3·6**	+ 3·3	+ 2·8	+ 2·3
Summer	+ 2·3	+ 2·0	+ 2·5	+ 3·4	+ 5·5	+ 6·0	+ 4·8	+ 2·9	− 1·6	− 8·5	−14·2	**−17·1**	−15·0	−10·1	− 3·4	+ 2·1	+ 5·6	+ 7·7	**+ 7·9**	+ 6·4	+ 4·5	+ 2·8	+ 2·0	+ 1·5

TABLE VII.—MEAN DIURNAL INEQUALITIES OF THE MAGNETICAL ELEMENTS—DECLINATION, INCLINATION AND HORIZONTAL FORCE.

International Disturbed Days.

DECLINATION WEST.

Month and Season, 1929.	Greenwich Mean Time. Hour commencing—																							
	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−3·58	−2·00	−1·56	−0·50	−0·52	−0·06	−0·26	−0·10	−0·58	+0·02	+1·62	+2·54	+4·66	**+4·78**	+4·04	+2·76	+1·62	+2·04	+0·50	−0·62	−3·00	**−3·92**	−3·30	−5·14
Feb.	**−9·15**	−6·01	−4·71	−6·39	−3·15	−0·11	+1·31	+1·69	+1·37	+2·31	+2·93	+5·11	+7·25	**+8·07**	+6·39	+5·37	+3·61	−0·17	−0·15	+3·11	−3·93	−3·77	−5·31	−5·73
Mar.	**−4·85**	−4·15	−4·25	−3·87	−2·15	−0·77	+0·17	−1·01	−0·87	+0·33	+2·27	+5·07	+7·19	+6·95	**+8·17**	+6·43	+3·75	−0·71	−1·31	−3·25	−4·19	−3·27	−2·11	−3·53
Apr.	−2·24	−4·02	−3·24	−2·24	−2·90	−4·30	−5·16	**−5·90**	−4·42	−1·76	+1·68	+5·42	+8·86	**+9·24**	+7·56	+6·54	+4·84	+1·88	−0·34	−0·84	−1·78	−2·58	−2·04	−2·18
May	−0·26	−0·64	−1·04	−0·98	−3·00	−4·56	**−5·00**	−3·94	−4·22	−2·14	+1·22	+4·08	+6·48	**+7·86**	+5·98	+5·00	+3·76	+0·84	+0·22	−0·40	−2·38	−3·38	−1·74	−1·68
June	−1·52	−1·28	−1·02	−2·08	−3·98	**−5·94**	−5·12	−4·08	−2·82	−1·88	+0·86	+3·76	+5·86	**+7·38**	+6·88	+5·60	+3·36	+1·26	+0·66	+0·28	−0·24	−1·04	−3·04	−1·88
July	−2·86	−4·72	**−5·02**	−4·44	−4·70	−4·88	−4·34	−4·52	−4·98	−2·40	+0·48	+3·38	+6·20	+8·00	**+8·56**	+7·36	+7·36	+4·24	+1·08	−0·38	−1·26	−0·54	−0·02	−1·48
Aug.	−0·54	−1·38	−3·46	−2·38	−2·44	−3·02	−3·78	**−4·80**	−4·38	−1·90	+1·56	+4·00	+6·46	**+8·74**	+7·92	+6·94	+2·28	+1·28	+0·50	−1·86	−1·94	−2·48	−2·32	−2·82
Sept.	−0·26	+0·14	−4·20	**−6·36**	−3·76	−2·20	+1·52	+0·66	−0·20	+1·72	+4·30	+6·24	+7·12	**+7·16**	+5·54	+3·04	−1·70	−4·78	−2·60	−3·06	−4·66	−2·10	−1·84	−2·34
Oct.	−1·40	+0·82	+2·24	+0·52	+1·12	+0·92	+0·08	−1·16	−2·06	−2·26	+0·24	+4·28	+7·60	**+8·20**	+6·92	+4·92	+1·70	+0·54	−5·06	−5·58	−7·14	**−7·40**	−4·77	−3·18
Nov.	−3·64	−2·62	−2·68	−2·12	−0·10	+1·82	+2·02	+2·24	+0·94	+0·62	+3·50	+4·38	+4·92	+5·24	**+5·32**	−1·86	+1·20	**−4·68**	−3·46	−1·68	−3·60	**−4·68**	−1·06	−0·44
Dec.	−4·24	−1·98	−0·48	+1·14	+2·34	+1·20	+1·82	+1·56	+1·80	+1·14	+2·34	+3·86	+4·74	**+5·38**	+3·84	+1·00	+1·64	+2·50	−0·68	−3·94	−4·92	−6·34	−6·70	**−7·00**
Year	−2·88	−2·32	−2·45	−2·48	−1·94	−1·83	−1·40	−1·60	−1·70	−0·52	+1·92	+4·34	+6·45	**+7·25**	+6·43	+4·43	+2·79	+0·35	−0·89	−1·52	−3·25	**−3·46**	−2·85	−3·12
Winter	**−5·15**	−3·15	−2·36	−1·97	−0·36	+0·71	+1·22	+1·40	+0·88	+1·02	+2·60	+3·97	+5·39	**+5·87**	+4·90	+1·82	+2·02	−0·08	−0·95	−0·78	−3·86	−4·68	−4·09	−4·58
Equinox	−2·19	−1·80	−2·36	−2·99	−1·92	−1·59	−0·85	−1·85	−1·89	−0·49	+2·12	+5·25	+7·69	**+7·89**	+7·05	+5·23	+2·15	−0·77	−2·33	−3·18	**−4·44**	−3·84	−2·69	−2·81
Summer	−1·30	−2·01	−2·64	−2·47	−3·53	**−4·60**	−4·56	−4·34	−4·10	−2·08	+1·03	+3·81	+6·25	**+8·00**	+7·34	+6·23	+4·19	+1·91	+0·62	−0·59	−1·46	−1·86	−1·78	−1·97

INCLINATION.

	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
Jan.	−0·17	−0·26	−0·43	−0·91	**−1·02**	−0·94	−0·99	−0·84	−0·57	−0·13	+0·26	+0·45	−0·04	+0·04	+0·51	**+1·22**	+0·89	+0·38	+0·51	+0·65	+0·57	+0·51	+0·25	+0·13
Feb.	−0·25	−0·99	−1·71	**−2·69**	−2·26	−1·57	−1·46	−1·56	−0·55	+0·26	+0·36	+0·38	+0·90	+1·43	+0·72	+1·00	+1·12	+1·61	+0·86	**+1·90**	+0·78	+1·24	+0·14	+0·42
Mar.	−1·08	−1·18	−1·39	**−1·71**	−1·51	−1·39	−0·59	−0·11	+0·26	+0·35	+0·49	+1·06	**+1·15**	+0·72	−0·21	+1·10	+1·62	+1·74	+0·91	+0·53	+0·56	+0·32	−0·12	−1·48
Apr.	−0·92	−1·05	−0·15	−0·64	**−1·10**	−0·54	−0·06	+0·31	+0·79	+1·25	**+1·40**	+0·99	+0·87	+0·77	+0·27	−0·05	+0·41	+0·38	+0·18	−0·44	−0·40	−0·38	−0·87	−1·09
May	−0·35	−0·50	−0·72	−0·70	**−1·12**	−0·53	+0·15	+0·65	+0·99	+0·94	**+1·42**	+0·80	+0·41	+0·42	+0·43	+0·22	−0·17	−0·22	−0·31	−0·27	−0·67	−0·76	−0·04	−0·06
June	−0·94	−0·67	−0·48	−0·63	−0·21	−0·09	+0·87	+1·22	+1·14	+0·85	+0·68	**+1·05**	+0·87	+0·84	+0·98	+0·19	−0·24	−0·76	−0·80	**−1·12**	−0·30	−0·42	−0·74	−0·30
July	−0·31	−0·95	−0·98	−1·17	−1·10	−0·67	+0·40	+0·71	+1·57	**+2·07**	+1·85	+1·20	+1·21	+0·68	−0·02	−0·36	**−1·76**	+0·17	−0·83	−1·01	−0·43	−0·41	+0·05	+0·09
Aug.	−1·62	**−1·66**	−0·90	−0·78	−0·25	−0·28	+0·23	+0·86	+1·46	+1·49	**+1·63**	+0·89	−0·01	−0·01	+0·20	−0·24	−0·85	−0·51	+0·14	+0·36	−0·08	+0·09	+0·05	−0·33
Sept.	−2·02	−2·50	**−3·09**	−2·18	−1·85	−0·95	−1·44	−0·12	+0·90	+2·45	**+3·24**	+2·66	+1·63	+1·34	+0·85	+1·69	+1·29	+1·10	+0·48	+0·22	−0·90	−0·63	−1·14	−1·01
Oct.	**−1·35**	−1·16	−1·11	−1·26	−1·00	−1·18	−1·21	−1·28	−0·80	−0·63	+0·13	+0·28	+0·63	+1·33	+0·95	+0·31	+1·16	+0·97	+1·54	+1·87	**+1·89**	+1·16	−0·39	−0·87
Nov.	−1·67	−1·35	**−1·94**	−1·70	−1·74	−1·59	−1·14	−0·56	−0·11	+0·67	+1·77	+1·88	+1·49	+1·57	+1·57	**+2·05**	+1·33	+1·01	+0·54	+0·59	−0·33	−0·30	−0·75	−1·32
Dec.	−1·16	−1·99	**−2·42**	−2·36	−2·21	−2·16	−2·15	−1·34	−0·44	−0·61	−0·22	−0·21	+0·53	+0·55	+1·81	+2·12	+1·60	+1·99	**+3·37**	+2·59	+2·08	+0·91	−0·07	−0·15
Year	−0·99	−1·19	−1·28	**−1·39**	−1·28	−0·99	−0·62	−0·17	+0·39	+0·75	**+1·08**	+0·95	+0·80	+0·81	+0·67	+0·77	+0·53	+0·66	+0·55	+0·49	+0·23	+0·11	−0·30	−0·50
Winter	−0·81	−1·15	−1·63	**−1·92**	−1·81	−1·57	−1·44	−1·08	−0·42	+0·05	+0·54	+0·63	+0·72	+0·90	+1·15	**+1·60**	+1·24	+1·25	+1·32	+1·43	+0·78	+0·59	−0·11	−0·23
Equinox	−1·34	**−1·47**	−1·44	−1·45	−1·37	−1·02	−0·83	−0·30	+0·29	+0·86	**+1·32**	+1·25	+1·07	+1·04	+0·47	+0·76	+1·12	+1·05	+0·78	+0·55	+0·29	+0·12	−0·63	−1·11
Summer	−0·81	**−0·95**	−0·77	−0·82	−0·67	−0·39	+0·41	+0·86	+1·29	+1·34	**+1·40**	+0·99	+0·62	+0·48	+0·40	−0·05	−0·76	−0·33	−0·45	−0·51	−0·37	−0·38	−0·17	−0·15

HORIZONTAL FORCE.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 0·2	+ 0·8	+ 3·4	+11·0	+12·2	+11·8	**+12·6**	+11·0	+ 6·6	− 0·8	− 7·0	−10·0	− 2·2	− 1·0	− 5·8	**−14·6**	− 8·6	− 1·4	− 2·8	− 5·2	− 4·4	− 3·8	− 1·0	− 1·2
Feb.	−10·4	+ 0·6	+12·0	**+25·8**	+21·8	+15·0	+15·2	+19·2	+ 5·0	− 6·6	− 7·4	− 7·8	−14·2	−16·0	0·0	− 0·4	+ 1·0	− 6·4	+ 2·4	−12·6	− 0·8	**−18·0**	− 7·2	−11·0
Mar.	+11·7	+11·3	+10·3	+13·9	+13·5	+13·3	+ 2·5	− 2·5	− 6·7	− 8·9	−12·3	**−20·9**	−18·9	−10·3	+ 7·3	− 6·7	− 8·5	−10·1	− 1·7	+ 1·5	− 2·1	− 0·7	+ 3·7	**+20·9**
Apr.	+12·8	+12·2	− 0·4	+ 6·2	+12·6	+ 5·0	− 0·4	− 6·6	−15·0	−24·0	**−27·8**	−22·8	−21·4	−16·2	− 3·0	+ 5·2	+ 1·8	+ 4·6	+ 8·0	+15·4	+12·4	+10·2	**+16·2**	**+16·2**
May	+ 4·6	+ 6·8	+10·6	+ 8·4	+13·4	+ 6·6	− 3·2	−13·0	−18·4	−20·4	**−29·0**	−21·6	−24·6	−10·6	− 4·6	+ 1·8	+10·2	+13·4	+13·8	+11·2	**+16·0**	+14·2	+ 2·4	+ 2·4
June	+11·8	+ 7·4	+ 4·6	+ 7·8	+ 2·0	+ 0·4	−15·0	−22·0	−22·8	−20·4	−20·0	**−26·6**	−20·2	−15·4	−12·4	+ 4·0	+13·2	+23·0	+23·4	**+26·0**	+25·4	+ 8·8	+13·0	+ 4·0
July	+ 0·4	+ 9·2	+ 8·8	+11·8	+11·6	+ 5·4	−11·4	−15·8	−29·0	**−37·0**	−34·0	−25·6	−25·0	−14·2	+ 1·6	+12·6	**+37·6**	+10·6	+28·4	+29·2	+16·8	+11·2	+ 1·4	− 5·0
Aug.	+17·9	+17·1	+ 6·7	+ 6·9	+ 1·7	+ 2·5	− 4·3	−12·9	−22·9	−25·7	**−31·5**	−19·7	− 5·3	− 4·7	− 2·9	+ 9·1	**+22·5**	+19·9	+10·9	+ 5·7	+ 8·1	+ 1·5	− 0·9	+ 2·1
Sept.	+27·5	+28·5	**+35·1**	+22·7	+19·9	+ 7·9	+15·3	− 3·9	−18·5	−42·1	**−53·3**	−43·5	−25·7	−18·1	− 5·7	−14·9	− 6·5	− 0·3	+ 5·7	+ 6·7	+19·9	+11·9	+17·1	+13·5
Oct.	+15·0	+11·4	+11·0	+12·8	+10·0	+13·6	+15·2	**+17·8**	+10·6	+ 6·8	− 6·8	−10·0	−12·4	−19·2	−10·2	+ 2·4	− 6·4	− 3·2	−12·6	−18·0	**−23·2**	−15·6	+ 3·0	+ 8·4
Nov.	+18·4	+16·0	**+23·0**	+18·2	+19·6	+17·0	+10·8	+ 2·6	− 3·0	−14·8	−30·2	**−30·4**	−20·2	−18·2	−15·2	−15·8	− 7·8	− 4·0	+ 0·4	− 2·0	+ 7·4	+ 3·6	+ 9·4	+15·4
Dec.	+12·0	+21·8	**+26·0**	+24·8	+22·4	+23·0	+24·8	+13·6	+ 1·0	+ 4·0	− 0·8	0·0	− 8·4	− 4·4	−20·0	−20·6	−12·6	−17·6	**−37·2**	−27·6	−21·6	− 8·0	+ 3·6	+ 1·4
Year	+10·2	+11·9	+12·6	**+14·2**	+13·4	+10·1	+ 5·2	− 1·0	− 9·4	−15·8	**−21·7**	−19·9	−16·5	−12·4	− 5·9	− 3·2	+ 3·0	+ 2·4	+ 3·2	+ 2·5	+ 4·5	+ 1·3	+ 5·1	+ 5·6
Winter	+ 5·1	+ 9·8	+16·1	**+20·0**	+19·0	+16·7	+15·9	+11·6	+ 2·4	− 4·6	−11·4	−12·1	−11·3	− 9·9	−10·3	**−12·9**	− 7·0	− 7·4	− 9·3	−11·9	− 4·9	− 6·6	+ 1·2	+ 1·2
Equinox	**+16·8**	+15·9	+14·0	+13·9	+14·0	+10·0	+ 8·2	+ 1·2	− 7·4	−17·1	**−25·1**	−24·3	−19·6	−16·0	− 2·9	− 3·5	− 4·9	− 2·3	− 0·2	+ 1·4	+ 1·8	+ 1·5	+10·0	**+14·8**
Summer	+ 8·7	+10·1	+ 7·7	+ 8·7	+ 7·2	+ 3·7	− 8·5	−15·9	−23·3	−25·9	**−28·6**	−23·4	−18·8	−11·2	− 4·6	+ 6·9	**+20·9**	+16·7	+19·1	+18·0	+16·6	+ 8·9	+ 4·0	+ 0·9

TABLE VII.—*continued.*—MEAN DIURNAL INEQUALITIES OF THE GEOGRAPHICAL COMPONENTS OF MAGNETIC FORCE.

International Disturbed Days.

NORTH COMPONENT.

Month and Season, 1929.	Greenwich Mean Time. Hour commencing—																							
	0.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Noon.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 4·4	+ 3·1	+ 5·2	+11·3	+12·5	+11·6	**+12·6**	+10·6	+ 7·1	− 0·8	− 8·7	−12·7	− 7·6	− 6·6	−10·4	**−17·5**	−10·3	− 3·8	− 3·3	− 4·4	− 0·8	+ 0·9	+ 2·9	+ 4·8
Feb.	+ 0·6	+ 7·6	+17·2	**+32·7**	+25·0	+14·8	+13·3	+16·8	+ 3·3	− 9·1	−10·7	−13·6	−22·3	**−25·1**	− 7·5	− 6·7	− 3·2	− 6·1	+ 2·5	−15·9	+ 3·8	−13·2	− 0·8	− 4·0
March	+17·1	+15·9	+15·0	+18·1	+15·7	+13·9	+ 2·2	− 1·3	− 5·5	− 9·1	−14·7	−26·3	**−26·9**	−18·2	− 2·4	−14·1	−12·7	− 9·0	− 0·1	+ 5·3	+ 2·9	+ 3·2	+ 6·1	**+24·5**
Apr.	+15·1	+16·6	+ 3·4	+ 8·7	+15·7	+ 9·9	+ 5·7	+ 0·5	− 9·5	−21·4	−29·1	−28·6	**−31·3**	−26·6	−11·8	− 2·6	− 3·9	+ 2·3	+ 8·2	+16·0	+14·2	+13·0	+18·2	**+18·4**
May	+ 4·8	+ 7·4	+11·6	+ 9·4	+16·6	+11·8	+ 2·7	− 8·1	−13·0	−17·4	**−29·7**	−25·9	−21·8	−19·6	−11·5	− 4·1	+ 5·6	+12·1	+13·2	+11·4	**+18·4**	+17·8	+ 4·4	+ 4·3
June	+13·3	+ 8·7	+ 5·7	+10·0	+ 6·6	+ 7·3	− 8·7	−16·7	−19·0	−17·7	−20·5	**−30·4**	−26·6	−23·7	−20·2	− 2·7	+ 9·0	+21·0	+22·1	+25·1	**+25·1**	+ 9·8	+16·3	+ 6·1
July	+ 3·7	+14·5	+14·5	+16·7	+16·8	+11·0	− 6·1	−10·1	−22·5	−33·3	**−33·7**	−29·0	−31·7	−23·2	− 8·5	+ 3·7	+28·1	+ 5·4	+26·5	**+29·0**	+17·9	+11·6	+ 1·4	− 3·2
Aug.	+18·1	−18·3	+10·6	+ 9·5	+ 4·5	+ 6·0	+ 0·2	− 7·0	−17·2	−22·9	**−32·6**	−23·9	−12·7	−14·8	−12·1	+ 0·8	**+19·3**	+17·9	+10·1	+ 7·7	+10·2	+ 4·4	+ 1·8	+ 5·4
Sept.	+27·1	+27·7	**+39·2**	+29·6	+23·8	+10·3	+13·2	− 4·6	−17·8	−43·1	**−57·1**	−49·8	−33·4	−26·1	−12·0	−18·1	− 4·4	+ 5·3	+ 8·6	+10·1	+24·9	+14·1	+18·9	+15·9
Oct.	+16·3	+10·2	+ 8·1	+11·9	+ 8·5	+12·2	+14·8	**+18·7**	+12·8	+ 9·3	− 6·9	−14·8	−21·0	**−28·3**	−18·1	− 3·4	− 8·2	− 3·8	− 6·4	−11·0	−14·3	− 6·6	+ 8·5	+11·9
Nov.	+22·2	+18·7	**+25·6**	+20·2	+19·3	+14·5	+ 8·2	− 0·1	− 4·0	−15·2	−33·6	**−34·8**	−25·5	−23·9	−21·1	−13·2	− 9·0	+ 1·6	+ 4·4	+ 0·0	+11·4	+ 9·0	+10·4	+15·6
Dec.	+16·7	+23·6	**+25·9**	+22·9	+19·1	+21·0	+22·1	+11·4	− 1·1	+ 2·6	− 3·5	− 4·5	−13·8	−10·6	−24·0	−21·3	−14·2	−20·1	**−35·5**	−22·3	−15·3	− 0·4	+11·4	+ 2·2
Year	+13·3	+14·4	+15·2	**+16·8**	+15·3	+12·0	+ 6·7	+ 0·8	− 7·2	−14·8	−23·4	**−24·5**	−22·9	−20·6	−13·3	− 8·3	− 0·3	+ 1·9	+ 4·2	+ 4·3	+ 8·2	+ 5·3	+ 8·3	+ 8·4
Winter	+11·0	+13·3	+18·5	**+21·8**	+19·0	+15·5	+14·1	+ 9·7	+ 1·3	− 5·6	−14·1	−16·4	**−17·3**	−16·6	−15·8	−14·7	− 9·2	− 7·1	− 8·0	−10·7	− 0·2	− 0·9	+ 6·0	+ 4·7
Equinox	**+18·9**	+17·6	+16·4	+17·1	+15·9	+11·6	+ 9·0	+ 3·3	− 5·0	−16·1	−27·0	**−29·9**	−28·2	−24·8	−11·1	− 9·6	− 7·3	− 1·3	+ 2·6	+ 5·1	+ 6·9	+ 5·9	+12·9	+17·7
Summer	+10·0	+12·2	+10·6	+11·4	+11·1	+ 9·0	− 3·0	−10·5	−17·9	−22·8	**−29·1**	−27·3	−23·2	−20·3	−13·1	− 0·6	+15·5	+14·1	+18·0	**+18·3**	+17·9	+10·9	+ 6·0	+ 3·2

WEST COMPONENT.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	−18·9	−10·4	− 7·5	− 0·3	− 0·1	+ 2·2	+ 1·4	+ 2·9	− 1·6	− 0·1	+ 7·1	+11·3	+24·1	**+25·0**	+20·1	+11·4	+ 6·7	+10·5	+ 2·0	− 4·4	−16·8	−21·5	−17·7	**−27·4**
Feb.	**−50·6**	−31·6	−22·3	−28·2	−11·9	+ 2·7	+10·2	+13·1	+ 8·3	+10·8	+13·9	+25·3	+35·2	**+39·2**	+33·8	+28·3	+19·3	− 2·3	− 0·3	+13·7	−20·9	−23·8	−29·6	−32·7
Mar.	**−23·1**	−19·5	−20·2	−17·4	− 8·4	− 1·2	+ 1·4	− 5·9	− 6·1	− 0·2	+ 9·3	+22·3	+33·9	+34·5	**+44·7**	+32·5	+18·0	− 5·9	− 7·3	−16·9	−22·6	−17·4	−10·3	−14·1
Apr.	− 9·1	−18·6	−17·2	−10·5	−12·6	−21·6	−27·4	**−32·6**	−26·6	−14·5	+ 2·9	+23·7	+42·2	**+45·8**	+39·3	+35·7	+26·0	+10·9	− 0·1	− 1·1	− 6·7	−11·4	− 7·3	− 8·0
May	− 0·4	− 1·9	− 3·2	− 3·4	−13·0	−22·7	**−27·1**	−23·6	−26·3	−15·7	+ 0·2	+16·9	+31·1	**+39·2**	+30·6	+26·8	+22·1	+ 7·3	+ 4·1	+ 0·3	− 9·1	−14·8	− 8·7	− 8·4
June	− 5·5	− 5·2	− 4·4	− 9·3	−20·6	**−31·3**	−30·3	−26·3	−19·8	−14·3	+ 0·2	+14·1	+26·6	**+35·7**	+33·7	+30·4	+20·6	+11·6	+ 8·5	+ 7·1	+ 4·2	− 3·6	−13·3	− 9·1
July	−15·0	−23·0	−24·6	−20·9	−22·3	−24·6	−25·4	−27·3	**−32·6**	−20·7	− 4·8	+12·3	+27·4	+39·2	**+45·6**	+41·6	+47·0	+24·7	+11·8	+ 4·3	− 3·0	− 0·4	+ 0·2	− 8·9
Aug.	+ 1·0	− 3·6	−16·8	−11·1	−12·5	−15·4	−20·9	**−28·1**	−28·1	−15·6	+ 1·4	+16·9	+33·0	**+45·1**	+41·2	+38·6	+16·9	+11·1	+ 5·0	− 8·6	− 8·5	−12·8	−12·5	−14·5
Sept.	+ 4·6	+ 5·4	−14·6	**−28·7**	−24·2	− 9·9	+11·3	+ 2·7	− 5·1	0·0	+11·2	+23·6	+32·1	**+33·9**	+28·0	+12·8	−10·4	−25·3	−12·5	−14·7	−20·3	− 8·5	− 6·0	− 9·4
Oct.	− 4·2	+ 6·8	+14·2	+ 5·5	+ 8·1	+ 7·8	+ 3·7	− 2·3	− 8·6	−10·5	− 0·2	+20·4	+37·5	**+39·2**	+34·4	+26·5	+ 7·6	+ 2·2	−29·5	−33·4	**−42·7**	−42·5	−24·6	−15·0
Nov.	−15·3	−10·4	− 9·2	− 7·3	+ 3·7	+13·3	+13·0	+12·4	+ 4·3	+ 0·1	+12·0	+16·6	+21·6	+23·8	**+24·8**	−13·2	+ 4·7	−25·6	−18·2	− 9·3	−17·4	**−23·9**	− 3·6	+ 1·0
Dec.	−19·8	− 5·8	+ 3·1	+11·4	+17·2	+11·3	+15·0	+11·2	+ 9·7	+ 6·9	+12·2	+20·4	+23·2	**+27·5**	+16·0	+ 0·8	+ 5·9	+ 9·4	−11·6	−26·8	−30·7	−35·2	−34·6	**−36·7**
Year	−13·0	− 9·8	−10·2	−10·0	− 8·1	− 7·5	− 6·3	− 8·7	−11·0	− 6·2	+ 5·5	+18·7	+30·7	**+35·6**	+32·7	+22·7	+15·4	+ 2·4	− 4·0	− 7·5	−16·2	**−18·0**	−14·0	−15·3
Winter	**−26·2**	−14·6	− 9·0	− 6·1	+ 2·2	+ 7·4	+ 9·9	+ 9·9	+ 5·2	+ 4·4	+11·3	+18·4	+26·0	**+28·9**	+23·7	+ 6·8	+ 9·2	− 2·0	− 7·0	− 6·7	−21·5	−26·1	−21·4	−24·0
Equinox	− 8·0	− 6·5	− 9·5	−12·8	− 9·3	− 6·2	− 2·8	− 9·5	−11·6	− 6·3	+ 5·8	+22·5	+36·4	**+38·2**	+36·6	+26·9	+10·3	− 4·5	−12·4	−16·5	**−23·1**	−20·0	−12·1	−11·6
Summer	− 5·0	− 8·4	−12·3	−11·2	−17·1	−23·5	−25·9	−26·3	**−26·7**	−16·6	− 0·8	+15·1	+29·5	**+39·8**	+37·8	+34·4	+26·7	+13·7	+ 7·4	+ 0·8	− 4·1	− 7·9	− 8·6	−10·2

VERTICAL COMPONENT.

	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	− 5·5	− 7·3	− 6·9	− 5·9	− 6·9	− 4·9	− 4·7	− 3·5	− 4·5	− 6·1	− 7·3	**− 7·7**	− 6·5	− 1·1	+ 4·1	+ 8·3	+10·5	+ 9·9	**+11·1**	+10·3	+ 9·3	+ 8·7	+ 6·1	+ 1·7
Feb.	**−32·7**	**−32·7**	−30·9	**−32·7**	−27·1	−19·1	−14·9	− 9·3	− 7·1	− 6·3	− 4·7	− 5·3	− 1·9	+11·9	+24·7	+33·3	**+40·9**	+40·3	+35·1	+36·1	+24·9	+ 0·9	−11·9	−11·1
Mar.	−10·1	−14·5	−23·9	**−26·3**	−20·7	−16·9	−14·3	− 9·5	− 6·5	− 8·7	−11·7	−11·9	− 4·1	+ 0·9	+ 9·5	+22·1	+36·1	**+36·3**	+27·3	+21·5	+14·5	+ 9·1	+ 4·5	− 2·3
Apr.	− 2·2	− 8·0	− 6·2	− 7·4	− 8·4	− 7·0	− 3·0	− 4·4	− 7·4	−12·6	−16·2	−19·0	**−19·6**	−10·8	+ 2·4	+10·2	+18·2	+23·8	**+24·6**	+20·4	+15·0	+10·6	+ 7·4	0·0
May	− 1·4	− 1·4	− 0·4	− 4·6	− 7·6	− 3·0	− 2·4	− 8·0	− 8·6	−14·8	−18·0	**−22·6**	−19·6	−10·0	+ 4·2	+11·8	+17·8	**+23·2**	+21·4	+16·4	+14·0	+ 7·0	+ 4·2	+ 3·4
June	− 4·9	− 5·9	− 5·7	− 3·3	− 2·9	− 2·1	− 4·7	− 8·9	−13·7	−17·9	−22·9	**−25·3**	−16·7	− 6·9	+ 4·7	+15·9	+22·3	**+26·9**	+26·7	+21·7	+14·1	+ 5·7	+ 4·7	− 0·9
July	− 9·5	−11·3	−13·3	−12·7	−11·1	−10·5	−12·5	−12·1	−12·9	−14·3	−15·1	**−18·3**	−16·5	− 9·5	+ 3·1	+16·7	+26·3	+30·3	**+37·1**	+32·9	+24·1	+11·7	+ 4·7	− 8·5
Aug.	−14·1	**−17·3**	−15·5	−10·7	− 4·9	− 3·7	− 2·1	− 0·5	− 2·7	− 8·1	−16·7	−15·1	−12·5	−11·3	+ 0·1	+12·5	+22·9	+28·3	**+29·9**	+25·5	+16·1	+ 6·5	− 0·5	+ 6·5
Sept.	− 5·7	−19·9	**−24·5**	−22·1	−17·3	−14·3	−14·1	−13·1	−11·9	−13·3	−13·1	− 9·3	− 3·3	+ 4·1	+16·1	+23·7	+29·1	**+36·9**	+29·3	+22·9	+15·1	+ 5·7	+ 0·5	− 3·3
Oct.	−11·6	−13·4	−12·6	**−13·6**	−11·4	− 8·8	− 6·6	− 2·8	− 3·0	− 5·8	−11·2	−13·2	− 7·2	+ 1·4	+ 8·0	+16·2	+25·0	**+25·6**	+23·8	+22·6	+11·4	+ 3·8	− 6·4	−10·4
Nov.	−14·7	− 9·1	−13·3	**−16·1**	−14·5	−14·9	−13·9	−13·1	−10·7	−11·3	− 9·1	− 5·7	+ 4·5	+11·5	+18·7	**+33·9**	+27·5	+25·3	+19·5	+15·9	+ 5·7	− 2·1	− 4·1	− 9·7
Dec.	−11·9	−17·9	−23·1	−23·5	**−23·9**	−20·9	−16·5	−14·5	−12·5	−11·5	− 9·1	− 7·1	− 1·3	+ 8·5	+15·7	+25·1	+25·7	+27·3	**+29·5**	+25·1	+21·3	+12·5	+ 5·7	− 1·9
Year	−10·4	−13·2	−14·7	**−14·9**	−13·1	−10·5	− 9·1	− 8·3	− 8·5	−10·9	−12·9	−13·4	− 8·7	− 0·9	+ 9·3	+19·1	+25·2	**+27·8**	+26·3	+22·6	+15·5	+ 6·7	+ 1·2	− 4·1
Winter	−16·2	−16·8	−18·6	**−19·6**	−18·1	−15·0	−12·5	−10·1	− 8·7	− 8·8	− 7·6	− 6·5	− 1·3	+ 7·7	+15·8	+25·2	**+26·2**	+25·7	+23·8	+21·9	+15·3	+ 5·0	− 1·1	− 5·3
Equinox	− 7·4	−14·0	−16·8	**−17·4**	−14·5	−11·8	− 9·5	− 7·5	− 7·2	−10·1	−13·1	−13·4	− 8·6	− 1·1	+ 9·0	+18·1	+27·1	**+30·7**	+26·3	+21·9	+14·0	+ 7·3	+ 1·5	− 4·0
Summer	− 7·5	− 9·0	− 8·7	− 7·8	− 6·6	− 4·8	− 5·4	− 7·4	− 9·5	−13·8	−18·2	**−20·3**	−16·3	− 9·4	+ 3·0	+14·2	+22·3	+27·2	**+28·8**	+24·1	+17·1	+ 7·7	+ 3·3	− 3·1

TABLE VIII.—HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE.

Values of a_n, b_n in the series $\Sigma (a_n \cos nt + b_n \sin nt)$, t being reckoned in hours from Greenwich Mean Midnight and converted into arc at the rate of 15° to each hour.

Month and Season.	North Force.								West Force.								Vertical Force.							
	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.																								
1929.	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
Jan.	+ 6·4	+ 3·0	− 5·1	−0·5	+1·7	−1·3	−0·5	+1·1	− 7·5	− 4·3	+ 0·2	+ 5·7	−3·0	−2·1	+1·8	+1·8	+1·9	− 3·3	− 1·8	−0·0	+1·3	−0·5	−0·8	+0·1
Feb.	+10·9	+ 5·4	− 6·4	−0·5	+2·7	−1·4	−0·9	+0·9	−12·6	− 7·1	− 0·9	+ 7·7	−2·8	−3·8	+0·9	+2·6	+0·0	− 8·4	− 4·9	−1·4	+1·6	+0·3	−1·1	+0·0
Mar.	+15·4	+ 0·1	− 5·2	−0·2	+2·6	−2·0	−0·6	+0·3	−12·2	− 8·6	+ 5·4	+10·9	−3·7	−6·1	+1·3	+1·8	+1·3	−11·6	− 6·0	+0·2	+3·9	+0·5	−1·2	+0·1
Apr.	+15·9	− 0·6	− 8·1	−0·1	+3·7	−1·8	−0·2	+0·7	− 9·1	−15·4	+ 7·4	+12·5	−4·7	−6·0	+1·7	+1·3	+7·4	− 5·0	− 7·6	−0·4	+3·1	−0·0	−0·9	+0·2
May	+15·3	− 3·9	− 8·7	−0·5	+0·9	+0·4	+0·8	+0·1	− 7·7	−14·9	+ 9·4	+10·3	−4·9	−1·6	+1·5	−0·5	+8·4	− 5·8	− 8·1	+0·9	+2·8	−0·3	−0·6	+0·2
June	+13·1	− 5·8	− 9·0	+0·9	+0·8	−0·2	+0·6	−0·5	− 7·0	−19·3	+ 8·8	+12·1	−3·5	−2·1	−0·6	+0·6	+6·6	− 6·3	− 8·6	+0·9	+2·1	+0·1	−0·2	+0·3
July	+16·9	− 6·5	− 9·9	+2·3	+0·3	−0·8	+1·1	−0·1	− 8·5	−20·5	+ 7·6	+11·1	−3·1	−3·8	+0·2	−0·6	+5·7	− 6·3	− 8·1	−0·7	+1·4	+0·8	−0·1	+0·2
Aug.	+14·8	− 5·9	− 6·1	+3·4	+0·6	−1·9	+0·9	+0·4	− 9·7	−14·7	+10·4	+ 9·5	−5·3	−3·4	+0·8	+1·4	+4·2	− 5·1	− 7·9	+0·3	+3·2	−0·7	−0·6	+0·0
Sept.	+17·9	− 1·6	− 6·7	+1·5	+1·7	−2·8	−0·0	+1·3	−10·9	− 8·5	+ 9·0	+ 7·6	−4·9	−4·8	+2·4	+2·0	+2·6	− 7·1	− 6·5	+0·2	+2·6	−0·5	−0·5	+0·3
Oct.	+14·6	+ 3·7	− 6·5	−0·8	+2·8	−1·6	−0·5	+0·6	−11·4	− 3·5	+ 4·0	+12·0	−2·9	−4·3	+2·2	+1·4	+0·9	− 7·7	− 5·1	−0·5	+2·6	+0·0	−0·9	+0·4
Nov.	+ 9·2	+ 3·5	− 4·1	−1·3	+1·8	−1·1	−0·1	+0·8	− 8·8	− 0·9	+ 1·8	+ 5·2	−2·3	−2·3	+2·4	+1·6	+0·6	− 7·1	− 3·4	+1·1	+1·3	−0·6	−0·8	+0·3
Dec.	+ 7·0	+ 6·1	− 1·8	−0·2	+0·8	−1·2	+0·6	−0·2	−11·3	+ 0·4	− 0·9	+ 6·5	−2·3	−0·9	+2·0	+0·9	+0·3	− 8·6	− 2·1	−0·3	+1·3	−0·4	−0·7	+0·2
Year	+13·1	− 0·2	− 6·4	+ 0·4	+1·7	−1·3	+0·1	+0·5	− 9·7	− 9·8	+ 5·2	+ 9·3	−3·6	−3·5	+1·4	+1·2	+3·3	− 6·9	− 5·8	+0·0	+2·3	−0·1	−0·7	+0·2
W.	+ 8·4	+ 4·5	− 4·3	− 0·6	+1·7	−1·2	−0·2	+0·7	−10·1	− 3·0	+ 0·0	+ 6·3	−2·6	−2·3	+1·8	+1·7	+0·7	− 6·9	− 3·0	−0·1	+1·4	−0·3	−0·8	+0·2
Eq.	+16·0	− 0·4	− 6·7	+ 0·1	+2·7	−2·1	−0·3	+0·7	−10·9	− 9·0	+ 6·5	+10·7	−3·9	−5·6	+1·9	+1·6	+3·0	− 7·9	− 6·3	−0·1	+3·1	−0·0	−0·9	+0·2
S.	+15·1	− 5·5	− 8·4	+ 1·5	+0·7	−0·6	+0·8	−0·0	− 8·3	−17·4	+ 9·1	+10·8	−4·2	−2·7	+0·5	+0·2	+6·3	− 5·9	− 8·2	+0·4	+2·4	−0·0	−0·4	+0·2
QUIET DAYS.																								
Year	+11·6	− 0·7	− 6·7	−0·0	+1·7	−1·3	−0·0	+0·8	− 4·9	−10·7	+ 6·2	+ 8·3	−4·1	−3·1	+1·3	+1·1	+4·5	− 1·5	− 4·8	+0·4	+2·2	−0·5	−0·7	+0·3
W.	+ 8·3	+ 2·1	− 6·0	−1·5	+1·5	−1·3	−0·4	+1·2	− 3·6	− 4·4	+ 1·4	+ 5·7	−2·5	−2·4	+1·6	+1·4	+1·5	− 1·6	− 2·1	+0·4	+1·2	−0·3	−0·7	+0·2
Eq.	+12·1	− 0·6	− 6·2	+0·8	+2·7	−2·0	−0·5	+1·5	− 6·0	−10·4	+ 7·7	+ 9·1	−5·2	−4·2	+2·2	+1·8	+5·4	− 1·2	− 5·2	−0·0	+3·1	−0·5	−1·1	+0·4
S.	+14·5	− 3·4	− 8·0	+0·6	+0·9	−0·7	+0·8	−0·3	− 5·1	−17·3	+ 9·4	+10·1	−4·5	−2·7	+0·2	+0·2	+6·8	− 1·7	− 7·1	+0·9	+2·3	−0·6	−0·3	+0·3
DISTURBED DAYS.																								
Year	+16·8	+ 1·5	− 6·9	+2·0	+1·1	−0·6	−0·2	−0·2	−17·7	− 8·3	+ 4·8	+10·3	−1·4	−4·2	+1·6	+1·3	−0·4	−17·6	− 9·2	−0·3	+2·3	+0·7	−0·3	+0·2
W.	+12·5	+10·3	− 4·1	+1·5	+0·8	−1·0	−0·6	−0·6	−20·7	+ 2·1	− 1·6	+ 5·8	−2·6	−3·6	+1·8	+2·0	−5·4	−18·6	− 6·8	+0·5	+1·7	+0·2	−0·9	+0·6
Eq.	+20·3	+ 3·1	− 6·1	+1·4	+3·2	−1·6	−0·3	+0·7	−18·8	− 5·4	+ 8·7	+12·3	+0·2	−6·2	+2·4	+1·5	−0·7	−19·0	− 9·1	−1·2	+3·4	+0·7	+0·4	−0·1
S.	+17·6	− 8·8	−10·5	+3·0	−0·8	+0·7	+0·3	−0·8	−13·7	−21·7	+ 7·1	+12·7	−1·9	−2·9	+0·6	+0·4	+4·8	−15·2	−11·9	−0·1	+1·8	+1·2	−0·3	+0·0

TABLE IX.—HARMONIC COMPONENTS OF THE DIURNAL INEQUALITY OF MAGNETIC FORCE.

Values of c_n, α_n in the series $\Sigma (c_n \sin n\mathrm{T} + \alpha_n)$, T being reckoned in hours from Midnight, Abinger Local Mean Time, and converted into arc at the rate of 15° to each hour. New phase-angles expressing the inequalities relative to apparent local 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
February	+3 28	May	−0 51	August	+0 59	November	−3 42
March	+2 12	June	+0 5	September	−1 12	December	−1 6

	° ′
Winter	+0 12
Equinox	−0 36
Summer	+0 24

Month and Season.	North Force.								West Force.								Vertical Force.							
	c_1	a_1	c_2	a_2	c_3	a_3	c_4	a_4	c_1	a_1	c_2	a_2	c_3	a_3	c_4	a_4	c_1	a_1	c_2	a_2	c_3	a_3	c_4	a_4
"ALL" DAYS.																								
1929.	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°	γ	°
Jan.	7·1	65·5	5·1	265·7	2·1	127·6	1·2	335·8	8·7	240·5	5·7	2·4	3·6	236·6	2·5	45·8	3·8	150·3	1·8	269·5	1·4	114·2	0·8	280·4
Feb.	12·2	64·1	6·4	266·1	3·0	118·3	1·3	316·2	14·4	240·9	7·7	353·9	4·7	217·4	2·8	21·3	8·4	180·1	5·1	254·7	1·6	80·2	1·1	272·5
Mar.	15·4	90·2	5·2	268·6	3·3	129·2	0·7	299·5	14·9	235·1	12·2	27·3	7·1	212·5	2·2	38·6	11·7	173·9	6·0	272·5	3·9	83·8	1·2	277·0
Apr.	15·9	92·7	8·1	269·9	4·1	117·5	0·7	347·9	17·9	210·9	14·5	31·4	7·6	219·1	2·1	53·8	8·9	124·4	7·6	268·1	3·1	91·4	1·0	285·3
May	15·8	104·5	8·7	267·8	1·0	68·7	0·8	87·1	16·8	207·8	13·9	43·1	5·2	253·3	1·6	111·2	10·2	124·7	8·2	276·9	2·9	96·4	0·6	289·7
June	14·4	114·2	9·0	276·8	0·8	104·2	0·8	129·1	20·6	200·4	15·0	36·9	4·1	239·9	0·9	318·3	9·2	134·1	8·6	277·1	2·1	87·4	0·4	332·9
July	18·1	111·5	10·2	283·7	0·8	160·4	1·1	97·5	22·2	202·9	13·4	35·0	5·0	220·5	0·6	166·6	8·5	138·4	8·1	266·0	1·6	62·6	0·2	322·0
Aug.	15·9	112·2	6·9	299·9	2·0	162·9	1·0	67·5	17·6	213·8	14·1	48·5	6·3	238·5	1·6	31·2	6·6	141·2	7·9	272·9	3·3	103·7	0·6	275·5
Sept.	18·0	95·5	6·9	283·6	3·3	150·5	1·3	0·6	13·8	232·3	11·8	50·7	6·9	226·5	3·1	52·3	7·6	160·2	6·5	272·2	2·6	102·9	0·5	301·0
Oct.	15·1	76·0	6·5	263·6	3·2	121·1	0·8	323·4	11·9	253·6	12·6	19·5	5·1	216·4	2·7	58·9	7·8	174·1	5·1	265·4	2·6	91·1	1·0	295·6
Nov.	9·9	69·5	4·3	252·8	2·1	121·9	0·8	354·1	8·9	264·4	5·5	19·7	3·3	225·7	2·9	59·1	7·1	175·6	3·6	288·4	1·4	115·3	0·8	294·6
Dec.	9·3	49·4	1·8	264·3	1·4	149·6	0·6	106·7	11·3	272·5	6·5	352·7	2·5	250·4	2·2	67·1	8·6	178·6	2·1	263·7	1·4	107·3	0·7	287·9
Year	13·1	91·3	6·4	274·0	2·1	128·8	0·5	14·0	13·8	225·2	10·6	30·1	5·0	226·7	1·8	50·9	7·6	154·5	5·8	271·0	2·3	93·7	0·7	287·9
W.	9·5	62·2	4·4	262·8	2·1	126·6	0·7	342·8	10·5	253·8	6·3	0·9	3·4	230·3	2·5	48·1	6·9	179·8	3·0	268·1	1·4	102·9	·0·9	282·4
Eq.	15·9	89·0	6·7	271·6	3·4	129·0	0·8	339·2	14·2	230·9	12·6	31·9	6·8	216·4	2·5	51·9	8·4	159·4	6·3	269·9	3·1	91·4	0·9	286·8
S.	16·0	110·5	8·6	281·1	0·9	134·9	0·8	93·5	19·3	205·8	14·1	40·9	5·0	238·2	0·5	64·9	8·6	133·7	8·2	273·3	2·4	91·7	0·4	296·2
QUIET DAYS.																								
Year	11·6	93·9	6·7	270·7	2·2	129·2	0·8	0·8	11·8	205·0	10·3	37·5	5·1	234·2	1·7	51·4	4·8	108·8	4·8	275·6	2·2	103·2	0·7	292·4
W.	8·5	76·3	6·2	256·6	2·0	131·9	1·3	344·1	5·7	219·6	5·8	14·5	3·5	228·2	2·1	49·8	2·2	138·0	2·1	280·8	1·2	105·5	0·7	289·2
Eq.	12·1	93·2	6·2	278·6	3·3	128·2	1·6	341·8	12·0	210·2	11·9	41·1	6·7	232·1	2·9	51·6	5·5	102·9	5·2	270·7	3·1	99·8	1·1	289·9
S.	14·9	103·6	8·0	275·4	1·1	127·9	0·9	112·2	18·0	196·9	13·8	43·8	5·3	240·4	0·3	56·7	7·0	104·7	7·2	277·8	2·3	105·4	0·4	315·4
DISTURBED DAYS.																								
Year	16·9	85·3	7·2	286·8	1·2	121·3	0·3	222·5	19·6	245·3	11·3	25·6	4·5	199·9	2·0	51·9	17·6	181·7	9·2	269·2	2·4	74·4	0·3	301·2
W.	16·2	51·0	4·4	291·4	1·3	142·0	0·9	223·2	20·8	276·1	6·0	345·6	4·4	217·0	2·7	43·8	19·4	196·5	6·8	275·2	1·7	85·5	1·1	305·2
Eq.	20·5	81·8	6·2	283·6	3·6	117·6	0·8	339·4	19·6	254·5	15·0	36·1	6·2	179·3	2·8	59·0	19·0	182·6	9·2	263·4	3·5	78·9	0·4	109·0
S.	19·7	117·0	10·9	286·9	1·1	312·9	0·9	160·1	25·7	212·7	14·5	29·9	3·5	213·9	0·7	58·1	16·0	162·9	11·9	270·5	2·1	56·5	0·3	278·1

TABLE X.—RANGE of MEAN DIURNAL INEQUALITIES for the MONTHS, YEAR and SEASONS of 1929.

Month and Season.	"All" Days.			Quiet Days.			Disturbed Days.			"All" Days.			Quiet Days.			Disturbed Days.		
	D.	I.	H.	D.	I.	H.	D.	I.	H.	N.	W.	V.	N.	W.	V.	N.	W.	V.
	′	′	γ	′	′	γ	′	′	γ	γ	γ	γ	γ	γ	γ		γ	γ
January	5·55	1·23	20·6	4·78	1·19	20·6	8·70	2·24	27·2	23·2	28·2	11·4	22·4	21·4	9·0	30·1	52·4	18·8
February	8·50	1·87	29·0	6·98	2·00	32·2	17·22	4·59	43·8	32·2	41·9	20·7	34·4	36·2	7·6	57·8	89·8	73·6
March	9·52	1·90	33·3	9·40	1·72	30·2	13·02	2·86	41·8	39·9	50·3	32·6	34·6	49·6	20·0	51·4	67·8	62·6
April	12·36	2·00	37·4	11·68	1·67	33·4	15·14	2·50	44·0	40·8	65·0	30·8	35·7	63·3	28·2	49·7	77·9	44·2
May	11·12	1·64	35·0	11·38	1·89	34·6	12·86	2·54	45·0	40·4	57·7	34·5	37·9	59·5	25·2	48·1	66·3	45·8
June	11·80	1·81	37·5	11·22	1·52	29·2	13·32	2·17	52·6	38·0	63·2	34·5	30·8	60·9	27·6	55·5	67·0	52·2
July	11·82	2·51	47·2	11·26	2·22	42·0	13·58	3·83	74·6	45·8	63·8	31·5	41·6	60·3	26·8	62·7	78·2	55·4
August	11·35	2·10	37·7	11·30	2·38	41·2	13·54	3·29	54·0	39·1	62·0	28·2	41·0	59·8	22·4	51·9	73·2	47·2
September	9·63	2·37	40·1	10·46	2·01	34·0	13·52	6·33	88·4	43·3	51·1	26·6	36·3	56·3	19·4	96·3	62·6	61·4
October	9·10	2·03	31·5	8·28	1·70	31·2	15·60	3·24	41·0	35·4	44·4	23·2	34·5	43·2	15·2	47·0	81·9	39·2
November	6·24	1·46	21·7	4·82	1·57	25·8	10·00	3·99	53·4	22·3	30·8	18·3	26·8	23·8	7·2	60·4	48·7	50·0
December	6·81	1·60	18·2	4·68	0·95	17·0	12·38	5·79	63·2	20·9	34·4	17·9	18·4	23·3	12·6	61·4	64·2	53·4
Year	8·72	1·53	26·2	8·49	1·53	28·7	10·71	2·47	35·9	30·8	46·1	25·1	30·7	45·2	17·7	41·3	53·6	42·7
Winter	6·43	1·35	21·3	5·18	1·30	22·6	11·02	3·52	32·9	24·0	32·1	16·1	24·4	26·0	8·7	39·1	55·1	45·8
Equinox	10·02	2·02	35·1	9·77	1·71	31·2	12·33	2·79	41·9	39·7	52·7	28·0	34·0	52·8	20·1	48·8	61·3	48·1
Summer	11·52	1·98	38·7	11·19	1·91	35·7	12·60	2·35	49·5	39·1	61·2	32·0	36·9	58·9	25·0	47·4	66·5	49·1

TABLE XI.—NON-CYCLIC CHANGE (24^h—0^h).

Month, 1929.	"All" Days.			Quiet Days.			Disturbed Days.		
	Declination West.	Horizontal Force.	Vertical Force.	Declination West.	Horizontal Force.	Vertical Force.	Declination West.	Horizontal Force.	Vertical Force.
	′	γ	γ	′	γ	γ	′	γ	γ
January	−0·01	+0·0	0·0	+0·92	+3·2	−1·8	−1·82	− 3·8	+ 2·8
February	−0·09	+0·1	+0·6	−0·08	+1·8	−1·0	+1·28	− 6·2	+10·8
March	+0·07	+1·4	−0·6	+0·30	+7·2	−0·8	+0·62	− 1·4	+ 0·2
April	−0·09	+0·2	−0·2	−0·14	+4·6	−1·2	+0·62	+ 0·2	+ 0·6
May	0·00	−0·4	−0·1	−0·44	−3·8	−2·8	−0·68	− 3·0	+ 4·2
June	−0·25	−0·4	−0·0	−0·02	+1·8	−1·2	−0·88	− 5·0	0·0
July	+0·12	+1·1	−0·1	−0·02	+5·4	+1·2	+0·40	− 2·2	+ 2·2
August	−0·12	−0·6	−0·3	0·00	+2·8	−1·2	−1·24	−18·6	+ 0·6
September	+0·09	−1·0	+0·5	+0·06	+2·2	−0·2	−0·02	−10·8	+ 0·6
October	−0·00	−0·5	+0·3	+0·24	+2·8	+0·8	−1·72	− 8·4	− 3·0
November	−0·08	+0·1	+0·1	+0·20	+6·0	−1·6	+0·84	− 5·2	+ 2·8
December	−0·08	−0·4	+0·3	+0·06	+6·0	−2·0	−2·20	− 6·6	+ 6·0
Year 1929	—	—	—	+0·09	+3·3	−1·0	−0·40	− 5·9	+ 2·3

TABLE XII.—MEAN MONTHLY and ANNUAL VALUES of TERRESTRIAL MAGNETIC ELEMENTS at the ABINGER MAGNETIC STATION.

Month, 1929.	Declination (West).	Inclination.	Horizontal Force.	North Force.	West Force.	Vertical Force.	Total Force.
	° ′	° ′					
January	12 40·9	66 36·8	·18562	·18109	·04075	·42920	·46762
February	12 39·8	66 37·4	·18553	·18102	·04067	·42921	·46759
March	12 39·5	66 38·1	·18545	·18094	·04064	·42928	·46763
April	12 37·8	66 36·6	·18562	·18112	·04058	·42913	·46755
May	12 36·8	66 36·2	·18566	·18118	·04054	·42909	·46753
June	12 36·3	66 36·2	·18567	·18119	·04052	·42911	·46755
July	12 35·3	66 36·9	·18558	·18112	·04045	·42914	·46754
August	12 34·9	66 36·8	·18558	·18112	·04042	·42911	·46752
September	12 33·8	66 37·2	·18551	·18107	·04035	·42910	·46749
October	12 32·6	66 37·6	·18548	·18105	·04028	·42917	·46754
November	12 31·6	66 38·1	·18545	·18104	·04022	·42926	·46761
December	12 30·8	66 38·4	·18543	·18102	·04018	·42932	·46765
Year 1929	12 35·8	66 37·2	·18555	·18108	·04047	·42918	·46757

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

1929 Day	January	February	March	April	May	June	July	August	September	October	November	December
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	12. 35·8	12. 35·8	12. 34·9	12. 21·8	12. 19·5	12. 23·8	12. 24·6	12. 26·6	12. 27·9	12. 26·1 26·2	12. 24·3	12. 26·5
2	35·8	36·1	34·7	21·4	19·2	23·7	24·7	26·4	27 8	26·7	24·1	26·4
3	35·5	36·2	34·6	21·0	19·2	24·2	25·0	26·3	27·7	26·3	24·2	26·7
4	35·4	35·7	34·8	20·5	19·1	24·0	25·5	26·3	28·0	25·1	24·1	26·5
5	35·3	35·4	34·7	20·5	19·6	23·5	25·5	26·4	28·5 28·4	25·5	24·4	26·8
6	35·3	35·4	35·2	20·3	20·1	23·6	25·3	26·4	28·3	25·9	24·3	26·6
7	34·9	35·5	35·6	19·6	20·1	23·9	25·1	27·0	28·0	25·3	24·5	26·7
8	34·7	35·2	35·8	19·8	20·1	23·7	24·8	26.9	28·1	25·7	24·8	26·3
9	34·7	35·1	35·6	19·7	20·0	23·9	25·0	26·3	28·1	25·7	24·7	26·2
10	34·7	35·5	36·5	19·9	20·1	23·7	25·3	26·4	28·1	25·4	24·6	25·7
11	35·0	35·5	36·4	19·7	20·0	23·7	25·4	26·6	27·8	25·3	23·9	25·7
12	34·9	34·8	36·4	19·5	20·3	23·7	25·8	26·4	27·8	25·9	24·4	25·6
13	34·8	34·8	36·5	19·1	20·5	24·2	25·9	26·5	27·8	25·9	23·9	25·7
14	34·9	34·4 34·6	36·6	19·2	20·6	24·2	25·8	26·6	27·4	26·0	23·5	25·9
15	34·7	34·6 38·6	36·4	19·3	20·5	24·0	25·8	26·3	27·0	26·1	23·0	26·5
16	34·8	38·6	36·6 35·9	19·4	20·8	24·3	26·2	26·5	27·2	26·2	23·3	26·3
17	34·4	38·9 38·5	35·8	19·7	21·2	24·2	26·3	26·6	27·0	26·2	23·0	25·5
18	34·4	38·8	35·9	19·8	21·5	24·2	26·4	26·8	27·2	26·3	23·1	25·1
19	34·6	38·9	35·7	20·1	21·9	24·4	26·3	26·5	27·0	25·8	22·6	24·6
20	34·9	38·9	36·2	20·0	21·7	24·5	26·6	26·5	26·7	25·6	23·5	24·4
21	34·8	39·2	36·3	19·8	21·8	24·5 25·9	26·9 26·9	26·6	26·5	25·2	23·9	24·3
22	35·0	39·5	36·6	19·5	22·1 26·2	25·3	27·0	27·0	26·5	25·1	24·8	24·5
23	35·4	39·4	36·8 37·8	19·4	26·7	25·7	26·9	27·0	26·3	25·1	25·4	24·2
24	35·2	39·8	37·4	19·0	26·7	25·3	27·0	27·4	26·3	25·5	25·3	24·7
25	35·1	40·1 35·8	37·3 38·0	19·2	27·0	24·9	27·0	27·6	26·6	25·3	25·3	24·8
26	35·3	35·5	38·0	18·8	26·7	24·8	26·7	27·7	26·4	24·8	25·3	25·0
27	34·6	35·3	37·8	19·1	26·9	24·7	26·4	27·6	26·2	24·3	25·4	24·8
28	34·6	35·0	37·8	19·3	27·0	24·8	26·5	27·7	26·4	24·0	25·1	24·9
29	34·9		38·1	19·7	26·8	24·7	26·7	27·9	26·4	24·4	25·8	25·1
30	34·9		38·8	19·8	26·3 24·6	25·0	26·8	27·7	26·6	24·8	26·0	25·1
31	35·4		39·1 22·6		23·8		26·6	27·5		24·5		25·1

TABLE XIV.—RESULTS of the DETERMINATIONS of the ABSOLUTE VALUE OF HORIZONTAL FORCE 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 FORCE MAGNETOGRAMS.

Greenwich Mean Time, 1929.	No. of Obs.	Observed Horizontal Force.	Deduced Value of Base Line.
		γ	γ
Jan. 1. 11 20–11 39	6	18559	18588
2. 12 22–12 29	5	18561	18586
3. 11 39–11 47	5	18558	18588
3. 15 20–15 37	4	18575	18588
4. 11 23–11 39	5	18553	18588
4. 14 49–15 5	4	18572	18588
5. 12 22–12 31	6	18556	18587
7. 12 40–12 48	5	18546	18587
7. 15 56–16 12	4	18556	18588
8. 12 28–12 44	5	18549	18588
8. 15 0–15 13	4	18530	18586
9. 12 16–12 24	6	18550	18588
9. 14 54–15 11	4	18549	18588
10. 12 49–13 6	5	18536	18588
10. 15 39–15 46	4	18536	18589
11. 12 17–12 24	5	18545	18587
12. 12 47–12 55	5	18555	18586
14. 16 43–16 59	5	18553	18587
15. 12 6–12 15	6	18544	18586
15. 15 16–15 30	4	18560	18588
16. 12 39–12 48	6	18547	18588
17. 11 47–11 52	4	18550	18587
18. 11 50–12 0	5	18551	18589
18. 14 48–15 2	3	18562	18588
19. 10 45–11 12	6	18564	18588
22. 12 26–12 36	5	18552	18587
22. 15 8–15 18	6	18562	18585
23. 10 50–11 9	10	18547	18585
24. 10 51–11 1	6	18542	18586
24. 15 9–15 16	4	18567	18587
25. 10 52–11 7	6	18555	18586
25. 15 39–15 52	4	18569	18587
26. 12 36–12 52	8	18561	18587
28. 12 57–13 19	8	18564	18589
29. 11 35–11 55	6	18546	18587
30. 10 43–11 6	6	18546	18586
31. 11 13–11 21	5	18548	18586
31. 15 17–15 23	4	18569	18587
Feb. 1. 10 30–10 41	6	18548	18587
1. 15 26–15 36	4	18578	18586
2. 10 23–10 33	6	18550	18585
4. 14 54–15 6	7	18560	18586
5. 16 8–16 19	6	18574	18587
6. 10 57–11 4	5	18552	18586
6. 15 59–16 12	4	18524	18584
7. 12 25–12 45	6	18537	18589
8. 12 26–12 35	6	18547	18586
9. 12 46–12 54	6	18536	18586
11. 15 43–15 51	6	18548	18588
12. 14 57–15 5	6	18557	18588
13. 16 20–16 37	6	18560	18587
14. 11 39–11 51	6	18555	18589
14. 14 50–15 0	5	18560	18590
14. 16 44–16 50	4	18558	18587
15. 11 27–11 35	6	18555	18586
15. 15 36–15 59	6	18565	18641
16. 10 52–11 21	8	18566	18642
17. 22 7–22 28	9	(18512)	(18647)
18. 19 55–20 35	6	18532	18644
19. 11 34–11 42	6	18501	18644
Feb. 20. 11 4–11 12	6	18525	18645
20. 16 21–16 36	4	18552	18644
21. 10 48–10 59	6	18526	18644
21. 11 41–11 49	5	18527	18646
22. 11 36–11 47	6	18518	18644
23. 12 40–12 49	6	18545	18642
25. 10 33–10 45	6	18551	18627
25. 12 50–13 6	5	18555	18628
26. 12 5–12 13	5	18548	18628
27. 12 38–12 46	6	18539	18629
28. 20 25–20 32	4	18542	18629
Mar. 1. 10 3–10 18	7	18518	18629
2. 10 37–11 0	6	18514	18628
4. 15 47–16 5	4	18550	18626
5. 12 12–12 25	8	18561	18629
6. 10 42–10 53	6	18543	18627
7. 11 29–11 45	6	18543	18626
8. 9 59–10 24	7	18551	18628
9. 10 53–11 2	5	18535	18626
11. 11 36–11 48	7	18524	18625
12. 11 23–11 30	5	18514	18624
13. 12 4–12 14	8	18506	18623
13 15 10–15 16	4	18509	18623
14. 12 11–12 40	6	18515	18624
14. 15 8–15 17	6	18533	18625
15. 10 6–10 30	6	18539	18625
15. 15 25–15 41	4	18501	18621
16. 10 51–11 1	6	18498	18624
16. 12 41–12 55	6	18494	18616
18. 16 11–16 37	8	18532	18614
19. 15 43–15 51	5	18551	18616
20. 10 2–10 9	6	18546	18615
21. 14 46–14 57	6	18547	18615
22. 12 44–13 2	5	18539	18618
23. 11 48–11 56	6	18526	18615
23. 13 1–13 9	5	18543	18629
25. 12 59–13 5	5	18538	18624
25. 14 42–14 52	6	18541	18624
26. 10 43–10 54	6	18528	18650
26. 12 15–12 23	6	18540	18651
27. 11 57–12 9	9	18536	18649
28. 10 25–10 33	5	18540	18651
28. 12 40–13 2	6	18550	18649
29. 9 42– 9 51	5	18538	18652
30. 10 2–10 11	5	18531	18649
30. 14 53–15 0	4	18559	18648
31 10 36–10 45	5	18533	18650
31. 18 32–18 41	5	18570	18650
April 1. 10 1–10 10	5	18540	18628
1. 11 19–11 30	6	18550	18630
2. 12 21–12 29	6	18548	18629
3. 11 49–11 59	6	18540	18630
3. 15 22–15 29	4	18548	18630
4. 10 6–10 13	6	18557	18630
4. 15 18–15 31	4	18553	18631
April 5. 10 51–11 10	6	18527	18630
5. 15 24–15 36	4	18563	18631
6. 10 33–10 51	6	18528	18630
8. 11 0–11 18	6	18531	18629
9. 10 20–10 28	5	18534	18630
9. 16 8–16 23	4	18563	18630
10. 11 49–12 9	6	18545	18630
10. 15 21–15 33	4	18555	18630
11. 11 43–12 14	8	18543	18630
12. 11 29–11 46	6	18530	18630
12. 15 26–15 42	4	18573	18631
13. 11 15–11 34	6	18523	18630
15. 10 54–11 10	6	18534	18630
16. 11 8–11 28	6	18523	18630
17. 11 2–11 19	6	18521	18630
17. 15 50–16 5	5	18533	18630
18. 10 42–11 1	6	18533	18629
19. 10 48–11 7	6	18532	18628
19. 15 15–15 28	4	18553	18629
20. 8 42– 9 2	6	18551	18629
22. 15 29–15 48	6	18559	18629
23. 11 19–11 29	8	18539	18629
24. 14 24–14 32	6	18563	18631
25. 11 35–11 43	6	18543	18630
26. 10 22–10 40	6	18544	18630
27. 10 55–11 5	6	18546	18631
29. 10 25–10 35	6	18548	18630
30. 10 50–10 59	6	18540	18629
30. 15 8–15 19	4	18571	18631
May 1. 10 26–10 35	6	18552	18630
2. 10 15–10 30	7	18538	18629
2. 14 31–14 43	4	18560	18630
3. 10 32–10 47	6	18552	18631
4. 10 29–10 39	6	18548	18630
7. 10 5–10 15	6	18549	18632
7. 11 24–11 36	5	18536	18629
8. 11 21–11 35	6	18562	18630
9. 9 41– 9 50	6	18549	18629
9. 11 10–11 20	4	18555	18629
10. 10 13–10 26	6	18553	18630
10. 11 14–11 19	4	18547	18630
11. 10 12–10 22	6	18551	18630
13. 15 9–15 27	6	18577	18629
14. 8 16– 8 25	6	18565	18631
14. 9 50– 9 57	5	18538	18628
15. 10 44–11 1	6	18531	18628
15. 11 40–11 51	5	18546	18628
16. 9 30– 9 42	8	18541	18627
16. 11 14–11 24	4	18537	18628
17. 10 3–10 12	6	18543	18627
17. 11 1–11 7	4	18544	18630
18. 9 52–10 5	5	18542	18628
20. 9 50– 9 58	5	18551	18629
21. 9 0– 9 9	6	18554	18628
22. 9 48– 9 56	5	18546	18630
22. 11 6–11 13	6	18557	18634
22. 14 6–14 21	6	18540	18647
23. 10 31–10 42	6	18538	18673
23. 14 31–14 40	6	18552	18673

March 25. Temperature raised to 15°·0 C.

May 23. Temperature raised to 20°·0 C.

TABLE XIV.—RESULTS of the DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL FORCE 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 FORCE MAGNETOGRAMS—*continued*.

Greenwich Mean Time, 1929.	No. of Obs.	Observed Horizontal Force.	Deduced Value of Base Line.
		γ	γ
May 24. 8 12– 8 27	6	18542	18672
24. 10 40–10 49	6	18537	18673
25. 10 9–10 25	8	18531	18671
27. 11 18–11 25	6	18535	18672
28. 9 20– 9 29	6	18554	18670
28. 13 44–13 53	4	18542	18671
29. 9 29– 9 38	5	18552	18673
29. 14 6–14 8	2	18558	18671
29. 14 23–14 29	5	18562	18670
30. 8 23– 8 29	4	18558	18670
30. 9 2– 9 23	6	18548	18669
30. 10 17–10 24	4	18557	18670
31. 9 17– 9 36	6	18534	18659
31. 15 35–15 54	5	18577	18660
June 1. 8 44– 8 57	5	18554	18660
3. 10 28–10 48	6	18556	18660
4. 9 19– 9 36	6	18541	18659
4. 11 37–11 45	5	18552	18662
5. 10 20–10 29	6	18551	18661
5. 10 47–10 52	4	18551	18660
6. 11 6–11 28	6	18565	18663
6. 14 45–15 1	6	18577	18664
7. 9 20– 9 37	6	18541	18661
7. 15 23–15 37	4	18580	18663
8. 9 29– 9 47	6	18541	18661
10. 10 10–10 26	6	18544	18661
11. 9 21– 9 40	6	18526	18661
11. 11 44–11 50	5	18499	18662
12. 9 33– 9 51	6	18533	18662
12. 11 54–12 0	4	18529	18663
13. 11 50–12 0	6	18546	18664
14. 9 38– 9 56	6	18554	18660
14. 10 49–11 0	4	18550	18661
15. 10 33–10 48	6	18542	18662
17. 8 42– 8 59	5	18561	18662
17. 11 27–11 35	5	18551	18662
18. 10 32–10 46	6	18556	18661
19. 10 2–10 20	6	18550	18661
19. 15 18–15 31	4	18562	18662
20. 9 33– 9 51	6	18536	18660
20. 10 39–10 49	4	18540	18662
21. 10 22–10 33	8	18549	18666
22. 11 33–11 42	6	18559	18665
24. 11 48–12 4	6	18550	18666
25. 9 40– 9 51	6	18542	18667
26. 8 38– 8 49	6	18549	18667
26. 10 49–11 4	5	18537	18667
27. 10 5–10 15	6	18544	18667
27. 11 38–11 48	4	18563	18669
28. 9 36– 9 44	6	18528	18667
28. 14 54–15 0	4	18585	18668
29. 9 54–10 1	6	18535	18666
July 1. 10 37–10 51	6	18523	18667
2. 14 0–14 11	6	18547	18667
3. 9 30– 9 38	6	18547	18665
4. 11 7–11 16	6	18565	18666
5. 10 26–10 35	6	18542	18666
6. 11 24–11 41	6	18550	18666

Greenwich Mean Time, 1929.	No. of Obs.	Observed Horizontal Force.	Deduced Value of Base Line.
		γ	γ
July 8. 10 10–10 20	6	18503	18666
8. 11 22–11 44	8	18520	18666
18. 10 16–10 41	6	18520	18661
18. 11 25–11 35	6	18513	18665
19. 10 17–10 33	8	18531	18663
19. 11 49–12 3	5	18532	18661
20. 10 54–11 7	5	18547	18663
22. 9 0– 9 14	6	18514	18669
22. 11 3–11 14	4	18534	18669
23. 9 56–10 7	6	18531	18670
23. 16 5–16 15	4	18568	18670
24. 10 52–10 59	5	18537	18672
24. 11 52–12 5	5	18543	18670
25. 10 19–10 38	8	18528	18670
26. 10 28–10 49	8	18529	18670
27. 9 33– 9 51	6	18545	18670
29. 9 40– 9 56	6	18545	18670
29. 13 59–14 7	5	18549	18675
30. 9 35– 9 51	6	18542	18671
31. 10 8–10 22	8	18547	18673
31. 14 52–15 1	4	18555	18672
Aug. 1. 10 21–10 35	6	18530	18669
1. 14 42–14 55	7	18560	18674
2. 10 49–10 57	5	18534	18674
2. 14 9–14 22	5	18540	18672
2. 15 33–15 42	4	18547	18672
3. 9 9– 9 19	7	18528	18671
5. 9 58–10 5	4	18516	18671
6. 10 36–10 48	6	18535	18673
6. 14 43–14 50	4	18572	18674
7. 9 14– 9 23	6	18529	18663
7. 10 58–11 6	5	18528	18662
8. 10 19–10 33	8	18529	18662
9. 10 3–10 15	7	18538	18663
10. 9 5– 9 14	5	18541	18661
10. 10 16–10 23	5	18546	18663
13. 9 45– 9 55	7	18535	18662
14. 8 58– 9 10	8	18545	18661
15. 9 52–10 4	7	18589	18660
16. 9 43– 9 53	6	18512	18661
17. 8 55– 9 4	6	18537	18663
19. 9 3– 9 14	6	18533	18662
20. 10 40–10 58	6	18527	18661
21. 11 12–11 21	6	18536	18662
22. 9 54–10 0	4	18526	18661
22. 10 24–10 28	4	18527	18664
23. 9 5– 9 20	6	18534	18660
24. 10 39–10 52	6	18530	18661
26. 9 43– 9 58	6	18532	18658
27. 9 27– 9 43	6	18535	18657
28. 9 27– 9 42	6	18543	18656
29. 9 10– 9 28	6	18536	18657
30. 9 53–10 7	6	18555	18658
31. 9 16– 9 29	6	18541	18657
Sept. 2. 9 25– 9 40	6	18548	18657
3. 9 10– 9 27	6	18535	18656
4. 9 40– 9 59	6	18537	18657

Greenwich Mean Time, 1929.	No. of Obs.	Observed Horizontal Force.	Deduced Value of Base Line.
		γ	γ
Sept. 5. 11 17–11 44	5	18534	18666
5. 15 3–15 14	4	18567	18668
6. 9 10– 9 26	6	18550	18667
7. 9 53–10 11	6	18477	18666
9. 9 3– 9 29	6	18528	18665
10. 9 45–10 0	6	18476	18665
11. 9 6– 9 27	6	18492	18665
12. 9 44–10 5	6	18528	18665
13. 9 6– 9 24	6	18528	18664
14. 9 33– 9 48	6	18503	18665
16. 9 7– 9 34	6	18533	18665
17. 9 42–10 4	6	18516	18665
18. 9 41– 9 59	6	18536	18666
19. 11 47–12 2	6	18556	18669
20. 15 38–15 54	6	18564	18668
21. 9 8– 9 32	6	18546	18668
23. 9 36– 9 47	6	18511	18669
23. 14 43–14 49	4	18552	18672
24. 9 46– 9 56	6	18528	18669
25. 9 33– 9 43	6	18539	18670
26. 11 17–11 30	7	18521	18671
27. 9 36– 9 54	9	18544	18670
28. 10 26–10 34	5	18538	18671
30. 9 40– 9 56	6	18547	18668
Oct. 1. 9 5– 9 25	6	18537	18669
2. 10 4–10 22	6	18535	18632
3. 10 1–10 15	6	18530	18632
4. 9 5– 9 24	6	18551	18634
5. 9 51–10 17	10	18518	18635
7. 11 9–11 27	6	18521	18632
8. 10 18–10 43	6	18514	18632
8. 11 30–11 45	4	18466	18632
8. 12 31–12 43	6	18491	18635
9. 10 55–11 10	6	18489	18625
9. 12 40–12 54	6	18487	18624
10. 9 26– 9 41	8	18509	18625
11. 11 35–11 51	10	18522	18626
12. 11 44–11 56	8	18498	18627
14. 10 16–10 38	8	18534	18627
14. 11 41–11 54	6	18533	18628
15. 11 40–11 51	6	18523	18628
16. 10 44–11 4	6	18547	18626
16. 14 50–15 2	4	18549	18626
17. 11 9–11 24	6	18537	18624
17. 11 45–11 50	2	18537	18625
17. 12 16–12 18	2	18534	18621
18. 10 46–10 54	4	18508	18625
18. 11 26–11 30	4	18505	18625
19. 11 24–11 33	6	18514	18626
21. 11 33–11 47	6	18530	18623
22. 10 57–11 13	6	18528	18624
22. 16 29–16 43	4	18561	18625
23. 10 51–11 4	6	18527	18625
23. 15 56–16 8	4	18560	18626
24. 10 10–10 24	6	18535	18625
24. 16 9–16 19	4	18543	18624
25. 10 34–10 44	4	18535	18624
25. 18 41–18 58	8	18564	18627
26. 11 29–11 40	8	18543	18626

July 20. Temperature raised to 22°·0
Aug. 6. Temperature lowered to 20°·0
Sept. 4. Temperature raised to 22°·0
Oct. 1. Temperature lowered to 15°·0

TABLE XIV.—RESULTS of the DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL FORCE 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 FORCE MAGNETOGRAMS—*continued*.

Greenwich Mean Time, 1929.	No. of Obs.	Observed Horizontal Force.	Deduced Value of Base Line.
		γ	γ
Oct. 28. 10 25–10 41	6	18549	18627
28. 16 30–16 35	4	18562	18628
29. 10 7–10 21	6	18542	18626
30. 10 57–11 11	7	18569	18628
30. 15 21–15 31	4	18526	18625
31. 11 28–11 36	6	18529	18626
31. 15 0–15 9	4	18548	18626
Nov. 1. 11 38–11 52	5	18549	18627
2. 10 36–10 55	6	18519	18626
4. 11 47–12 0	6	18505	18625
5. 10 5–10 13	5	18516	18627
6. 10 16–10 27	6	18494	18625
6. 15 31–15 46	6	18533	18626
7. 10 38–10 49	6	18530	18627
7. 11 46–11 55	6	18506	18627
7. 17 24–17 38	6	18511	18625
8. 10 15–10 40	8	18540	18627
8. 11 54–12 9	6	18537	18627
9. 10 10–10 25	6	18544	18627
11. 10 14–10 38	6	18522	18627
11. 16 12–16 28	6	18551	18628
12. 10 38–10 51	6	18545	18627
12. 16 46–17 4	6	18550	18628
13. 10 10–10 25	6	18543	18628
13. 16 30–16 40	6	18544	18628
14. 10 42–10 55	6	18545	18627
15. 12 32–12 47	6	18539	18629
16. 10 30–10 43	6	18518	18630
18. 11 16–11 25	6	18534	18630
18. 12 13–12 22	5	18536	18630
Nov. 19. 14 44–14 53	6	18550	18610
20. 10 49–10 59	6	18552	18608
20. 12 17–12 31	6	18560	18608
21. 10 39–10 53	8	18535	18609
21. 14 30–14 43	8	18556	18609
22. 10 40–10 58	6	18543	18605
22. 16 35–16 44	4	18558	18604
23. 10 16–10 26	6	18540	18605
23. 11 31–11 43	8	18540	18606
24. 11 44–12 2	6	18544	18603
25. 10 37–10 55	8	18548	18605
26. 11 33–11 49	6	18547	18604
26. 12 16–12 27	4	18556	18605
27. 11 11–11 21	6	18556	18606
27. 12 33–12 42	6	18550	18606
28. 11 24–11 37	6	18555	18604
28. 12 31–12 41	4	18551	18604
29. 11 5–11 14	6	18540	18605
29. 15 11–15 23	5	18545	18604
30. 10 19–10 46	10	18539	18602
Dec. 2. 11 38–11 55	6	18545	18602
3. 11 35–11 53	6	18541	18602
3. 12 53–12 55	1	18556	18602
3. 13 55–13 58	1	18549	18605
3. 15 40–15 42	1	18528	18604
3. 20 0–20 3	2	18529	18601
4. 10 46–11 0	6	18481	18600
5. 11 1–11 12	6	18481	18600
5. 11 44–11 54	6	18490	18601
6. 10 49–11 0	6	18502	18601
6. 16 6–16 15	4	18499	18599
Dec. 7. 11 8–11 33	8	18526	18600
9. 15 51–15 59	3	18532	18601
9. 19 8–19 14	3	18542	18601
10. 10 42–11 1	6	18545	18602
10. 15 58–16 10	4	18531	18602
11. 10 24–10 43	6	18532	18602
11. 14 49–15 1	4	18537	18601
12. 8 45–8 54	6	18511	18601
12. 10 51–11 5	6	18518	18600
13. 11 6–11 18	8	18545	18603
13. 11 47–11 54	5	18547	18603
14. 11 25–11 44	8	18550	18600
16. 10 16–10 27	6	18545	18599
16. 11 20–11 29	6	18550	18601
17. 10 55–11 3	6	18547	18601
17. 11 28–11 37	5	18554	18603
18. 11 2–11 18	6	18534	18603
18. 12 50–12 59	4	18536	18601
19. 10 2–10 11	8	18542	18605
20. 10 37–10 58	8	18540	18603
21. 11 15–11 37	8	18547	18605
23. 11 34–11 48	6	18530	18605
23. 15 41–15 51	4	18544	18605
24. 11 1–11 25	10	18547	18604
25. 9 31–9 40	6	18559	18605
26. 12 53–13 0	5	18547	18605
27. 10 5–10 15	6	18546	18606
28. 11 38–11 47	6	18554	18604
30. 10 30–10 39	6	18549	18607
30. 16 14–16 29	6	18549	18603
31. 10 9–10 27	6	18549	18603
31. 17 15–17 28	4	18563	18601

Nov. 18. Temperature lowered to 11°·0

TABLE XIV (A).—RESULTS of the DETERMINATIONS of the ABSOLUTE VALUE of HORIZONTAL FORCE from OBSERVATIONS made with the UNIFILAR MAGNETOMETER CASELLA 181 in the TESTING HUT at ABINGER, with the DEDUCED VALUES of the BASE-LINE of the HORIZONTAL FORCE MAGNETOGRAMS.

Greenwich Mean Time, 1929.	Observed Horizontal Force.	Deduced Value of Base Line.
	γ	γ
Jan. 2. 15 3–16 7	18562	18579
10. 14 36–15 45	18527	18571
11. 11 10–11 45	18534	18582
17. 12 19–13 28	18545	18581
23. 15 20–16 26	18564	18581
Feb. 1. 15 10–16 30	18567	18579
8. 15 5–16 17	18552	18575
14. 14 45–15 48	18549	18578
21. 10 30–11 49	18519	18636
Mar. 2. 11 24–12 24	18505	18617
8. 14 55–15 59	18532	18624
15. 11 34–12 38	18532	18615
22. 15 26–16 22	18534	18612
27. 14 14–15 30	18560	18648
Apr. 2. 10 38–11 17	18523	18622
2. 11 9–11 44	18525	18619
2. 11 39–12 6	18534	18622
3. 10 4–10 37	18542	18632
3. 10 29–11 1	18539	18626
3. 14 22–14 50	18548	18627
3. 14 45–15 11	18546	18622
April 4. 10 37–11 38	18551	18628
4. 11 30–12 38	18562	18630
4. 14 14–14 41	18535	18622
4. 14 36–15 1	18542	18620
9. 10 31–11 28	18521	18614
18. 14 44–15 48	18558	18627
27. 10 6–11 6	18534	18617
May 2. 10 28–11 47	18541	18618
7. 10 0–10 57	18536	18619
14. 10 23–11 28	18529	18620
25. 9 39–10 41	18515	18656
June 7. 9 50–11 13	18534	18654
13. 10 23–11 22	18525	18649
21. 14 23–15 35	18585	18659
28. 10 48–11 48	18514	18654
July 5. 14 8–15 35	18573	18654
10. 9 11–10 32	18491	18659
12. 10 37–11 36	18505	18657
16. 14 4–15 17	18547	18663
19. 10 17–11 25	18520	18652
27. 11 10–12 3	18543	18663
Aug. 1. 13 51–14 54	18526	18661
Oct. 10. 10 28–11 41	18504	18617
11. 10 11–11 27	18505	18617
15. 10 37–11 50	18515	18622
18. 10 14–11 16	18504	18618
25. 10 20–11 27	18521	18611
Nov. 1. 12 9–13 23	18540	18621
7. 10 19–11 21	18517	18618
23. 10 29–11 39	18528	18593
26. 10 22–11 17	18559	18598
26. 11 9–11 51	18548	18600
27. 10 28–11 34	18546	18595
27. 11 26–12 18	18539	18594
28. 10 40–11 28	18543	18590
28. 11 19–12 4	18543	18592
29. 10 7–11 33	18531	18596
Dec. 5. 10 46–12 7	18473	18590
13. 10 18–11 41	18535	18592
14. 10 16–11 14	18545	18597
19. 10 46–12 0	18533	18593
30. 11 56–12 57	18529	18594

TABLE XV.—DAILY VALUE of the BASE-LINE of the VERTICAL FORCE MAGNETOGRAMS at the ABINGER MAGNETIC STATION DEDUCED from OBSERVATIONS OF VERTICAL FORCE made with DYE COIL-MAGNETOMETER from 1928 SEPTEMBER 1 to 1929 DECEMBER 31.

Day of Month	1928 Sept.	Oct.	1 Nov.	Dec.	1929 Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	43179	43228	43213	43120	43092	43109	43115	—	43163	—	43116	43162	—	43097	43094	—
2	183	235 206	214	—	095	106	118	—	167	—	114	162	43185	078	094	43070
3	185	198	216	124	093	—	—	—	168	43085	114	163	184	073	—	067
4	184	199	—	122	096	106	116	—	171	085	116	—	186	070	094	068
5	183	203	219	125	101	109	117	—	—	088	114	169	—	070	—	069
6	185	204	224	101	—	109	113	—	171	089	113	166	195	—	—	066
7	184	—	227	094	102	109	—	—	168	090	—	160	199	073	—	065
8	188	207	—	084	103	—	111	—	168	089	121	165	—	071	—	—
9	—	209	—	—	104	107	111	—	170	—	124	165	202	072	—	071
10	189	208	—	088	104	—	—	—	174	093	119	163	204	072	—	069
11	188	205	—	088	102	109	117	—	170	094	127	—	206	069	—	071
12	191	203	—	086	104	111	115	—	—	094	120	158	209	073	—	071
13	196	206	—	090	—	110	115	—	171	100	123	169	208	—	—	072
14	197	—	—	090	106	115	121	—	172	094	—	169	212	072	—	074
15	199	208	—	090	104	120	—	—	173	095	132	173	—	069	096	—
16	—	206	—	—	106	—	119	—	173	—	129	174	221	072	089	071
17	202	206	—	090	107	—	—	—	173	095	126	172	220	071	091	071
18	204	—	—	095	108	116	124	—	172	094	131	—	222	071	091	073
19	203	207	—	095	111	113	114	—	—	095	134	184	223	071	075	076
20	209	208	110	092	—	115	116	—	176	100	132	178	226	—	072	078
21	213	—	114	093	109	115	120	—	171	105	—	179	230	077	074	081
22	213	207	111	092	107	118	—	—	172	101	143	183	—	076	071	—
23	—	210	107	—	105	119	—	159	216	—	143	180	235	077	071	084
24	220	209	109	093	106	—	—	162	226	104	145	180	231 083	080	075	082
25	216	208	—	—	108	118	—	164	225	103	150	—	087	081	076	082
26	218	210	114	—	106	119	—	164	—	106	150	181	089	079	073	081
27	222	209	118	092	—	115	—	161	231	110	154	179	090	—	068	085
28	224	—	117	093	109	119	—	—	232	109	—	180	090	087	072	084
29	222	215	118	—	111		—	169	231 078	109	153	182	—	086	070	—
30	—	210	120	090	112		—	164	084	—	158	182	094	089	069	082
31		208		090	111		—		082		158	181		092		084

Oct. 2. Temperature lowered to 15°·0
Dec. 5. Temperature lowered to 10°·0

March 25. Temperature raised to 15°·0
May 23. Temperature raised to 20°·0
July 21. Temperature raised to 22°·0
Aug. 6. Temperature lowered to 20°·0

Sept. 5. Temperature raised to 22°·0
Oct 1. Temperature lowered to 15°·0
Nov. 18. Temperature lowered to 11°·0

TABLE XV(A).—DAILY VALUE of the BASE-LINE of the VERTICAL FORCE MAGNETOGRAMS at the ABINGER MAGNETIC STATION, DEDUCED from OBSERVATIONS of MAGNETIC DIP made with the EARTH INDUCTOR.

Day of Month.	January.	February	March	April	May	June	July	August	September	October	November	December
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	43122	43127	43153	43174	43197	43118	43138	43191*	43221	43120	43081	—
2	128	139	145	191	197	—	143 142*	185*	221	100	085	43056*
3	117	—	128	200	192	122	144*	192* 188	223	090	—	061*
4	124	149	145	188	186	108	155*	193	227	082	082	054*
5	121	136	140	181	190	114	154*	191	222	083	072	055*
6	—	136	153	190	—	119	145*	187	237	069	084	072*
7	126	135	146	186	205	121	159*	195	227	086	089	066*
8	—	142	136	190	197	123	149*	202	239	074	075	070*
9	—	131	147	191	194	129	150*	196	239	072	079	—
10	135	152	155	194	189	121	149	204	195	072	080	071*
11	137	139	146	186	197	129	153	—	205	076	081	059*
12	136	138	141	187	209	127	160 168	202	200	066	083	064*
13	137	138	152	197	196	125	171 151	201	206	067	069	067*
14	133	151	146	185	207	130	169	218	212	074	—	063*
15	139	145	146	187	195	135	165	183	218	070	097	067*
16	140	146	140	194	203	—	171	205	216	061	080	065*
17	137	—	—	192	192	134	164	202	217 259*	071	090	070
18	135	141	148	186	203	126	159	211	256* 228	076	093	067
19	136	139	142	189	217	135	171	237	230	084	076	067
20	142	149	156	195	193	128	178	209	219 258* 223*	—	073	068
21	148	144	162	189	219	146	—	214	230*	068	088	090
22	142	157	—	190	203	(097)	174	213	230*	071	068	073
23	139	143	136	197	260	145	176	218	222*	074	063	084
24	140	—	132	182	262	139	177	213	230*	077	065	078
25	133	149	149	196	264	150	188	211	109*	085	066	(099)
26	128	135	188	193	259	142	183	217	113	078	062 064*	070
27	140	—	188	204	253	142	201	214	105	093	067*	076
28	138	148	172	—	258	150	170	203	105	086	066*	081
29	139		171	193	267 117	146	183 211*	225	110	084	062*	—
30	142		154	203	122	—	186*	214	114	097	059*	088
31	129		—		120		187*	212		090		084

* Former Greenwich Inductor used.

The end bearings of the Abinger Inductor-coil were first adjusted on September 10th, and, experimentally, on several other days before the end of the month. The end bearings of the former Greenwich Inductor-coil were first adjusted on September 20th. They were subsequently renewed about the middle of November (see also Introduction, page D 15).

March 25. Temperature raised to 15°·0
May 23. Temperature raised to 20°·0
July 21. Temperature raised to 22°·0
August 6. Temperature lowered to 20°·0
September 5. Temperature raised to 22°·0
October 1. Temperature lowered to 15°·0
November 18. Temperature lowered to 11°·0

MEAN ANNUAL VALUES OF MAGNETIC ELEMENTS DETERMINED AT THE ROYAL OBSERVATORY, GREENWICH, FOR THE YEARS 1841–1925.

Year.	Declination West.	Horizontal Force.	Vertical Force.	Dip.	Year.	Declination West.	Horizontal Force.	Vertical Force.	Dip.
	° ′	C.G.S. Unit	C.G.S. Unit	° ′		° ′	C.G.S. Unit	C.G.S. Unit	° ′
1841	23 16·2	..	..	..	1883	18 15·0	0·1812	0·4381	67 31·7
1842	23 14·6	..	..	..	1884	18 7·6	0·1814	0·4379	67 29·7
1843	23 11·7	..	..	69 0·6	1885	18 1·7	0·1817	0·4380	67 28·0
1844	23 15·3	..	..	69 0·3	1886	17 54·5	0·1818	0·4377	67 27·1
1845	22 56·7	..	..	68 57·5	1887	17 49·1	0·1819	0·4380	67 26·6
1846	22 49·6	0·1731	..	68 58·1	1888	17 40·4	0·1822	0·4383	67 25·6
1847	22 51·3	0·1736	..	68 59·0	1889	17 34·9	0·1823	0·4380	67 24·3
1848	22 51·8	0·1731	..	68 54·7	1890	17 28·6	0·1825	0·4381	67 23·0
1849	22 37·8	0·1733	..	68 51·3	1891	17 23·4	0·1827	0·4380	67 21·5
1850	22 23·5	0·1738	..	68 46·9	1892	17 17·4	0·1829	0·4379	67 20·0
1851	22 18·3	0·1744	..	68 40·4	1893	17 11·4	0·1831	0·4373	67 17·9
1852	22 17·9	0·1745	..	68 42·7	1894	17 4·6	0·1831	0·4374	67 17·4
1853	22 10·1	0·1748	..	68 44·6	1895	16 57·4	0·1834	0·4378	67 16·1
1854	22 0·8	0·1749	..	68 47·7	1896	16 51·7	0·1835	0·4382	67 15·1
1855	21 48·4	0·1756	..	68 44·6	1897	16 45·8	0·1838	0·4377	67 13·5
1856	21 43·5	0·1759	..	68 43·5	1898	16 39·2	0·1840	0·4377	67 12·1
1857	21 35·4	0·1769	..	68 31·1	1899	16 34·2	0·1843	0·4380	67 10·5
1858	21 30·3	0·1762	..	68 28·3	1900	16 29·0	0·1846	0·4380	67 8·8
1859	21 23·5	0·1761	..	68 26·9	1901	16 26·0	0·1850	0·4381	67 6·4
1860	21 14·3	..	..	68 30·1	1902	16 22·8	0·1852	0·4377	67 3·8
1861	21 5·5	0·1773	..	68 24·6	1903	16 19·1	0·1852	0·4368	67 1·2
		0·1759		68 15·8	1904	16 15·0	0·1854	0·4359	66 57·6
1862	20 52·6	0·1763	0·4403	68 9·6	1905	16 9·9	0·1854	0·4355	66 56·3
1863	20 45·9	0·1764	0·4396	68 7·0	1906	16 3·6	0·1854	0·4353	66 55·6
1864	..	0·1767	0·4393	68 4·1	1907	15 59·8	0·1855	0·4357	66 56·2
1865	20 33·9	0·1767	0·4388	68 2·7	1908	15 53·5	0·1854	0·4356	66 56·3
1866	20 28·0	0·1773	0·4397	68 1·3	1909	15 47·6	0·1854	0·4348	66 54·1
1867	20 20·5	0·1777	0·4392	67 57·2	1910	15 41·2	0·1855	0·4345	66 52·8
1868	20 13·1	0·1779	0·4395	67 56·5	1911	15 33·0	0·1855	0·4342	66 52·1
1869	20 4·1	0·1782	0·4396	67 54·8	1912	15 24·3	0·1855	0·4340	66 51·8
1870	19 53·0	0·1784	0·4392	67 52·5	1913	15 15·2	0·1853	0·4333	66 50·5
1871	19 41·9	0·1786	0·4389	67 50·3	1914	15 6·3	0·1853	0·4333	66 50·8
1872	19 36·8	0·1789	0·4383	67 47·8	1915	14 56·5	0·1851	0·4331	66 51·6
1873	19 33·4	0·1793	0·4386	67 45·8	1916	14 46·9	0·1848	0·4326	66 52·2
1874	19 28·9	0·1797	0·4387	67 43·6	1917	14 37·1	0·1848	0·4330*	66 53·0
1875	19 21·2	0·1797	0·4383	67 42·4	1918	14 27·8	0·1846	0·4325	66 52·8
1876	19 8·3	0·1799	0·4383	67 41·0	1919	14 18·2	0·1845	0·4324	66 53·3
1877	18 57·2	0·1800	0·4381	67 39·7	1920	14 8·6	0·1845	0·4325	66 53·6
1878	18 49·3	0·1802	0·4382	67 38·2	1921	13 57·6	0·1845	0·4322	66 53·0
1879	18 40·5	0·1805	0·4382	67 37·0	1922	13 46·7	0·1844	0·4318	66 52·3
1880	18 32·6	0·1805	0·4380	67 35·7	1923	13 35·1	0·1843	0·4314	66 51·9
1881	18 27·1	0·1807	0·4379	67 34·7	1924	13 22·8	0·1843	0·4311	66 51·6
1882	18 22·3	0·1806	0·4375	67 34·2	1925	13 9·9	0·1841	0·4308	66 51·4

MAGNETIC ELEMENTS OBSERVED AT THE ABINGER MAGNETIC STATION.

1925	13 22·7	0·18597	0·42946	66 35·1	1928	12 47·0	0·18564	0·42941	66 37·3
1926	13 10·4	0·18581	0·42947	66 36·3	1929	12 35·8	0·18555	0·42918†	66 37·2†
1927	12 58·4	0·18575	0·42932	66 36·2					

In 1861 new Unifilar Apparatus for absolute Horizontal Force 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 the suspension of complete Declination Observations. From 1914 the Dip was determined with the Inductor.

N.B.—In the above table the values of Vertical Force were, for the years 1862–1913 inclusive, computed from the corresponding values of Horizontal Force 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 Force.

* Mean of ten months, March to December.

† These values are based upon observations with the Vertical Force Coil-magnetometer (see Introduction page D14).

MAGNETIC DISTURBANCES.

The following notes briefly summarise, month by month, the salient features of magnetic conditions as shown by the traces of Declination, Horizontal Force and Vertical Force recorded at the Abinger Magnetic Station in the year 1929.

January.—Conditions were quiet at the beginning of the month. Slight disturbance of an irregular character occurred during the evening of 5th, lasting about six hours, and a further short period of disturbance was centred round midnight of 8th—9th, during which declination decreased 20′ in two hours and there was a range of 100γ in H.F. The unsettled conditions prevailed until midday on 11th. An isolated movement in H.F. on 14th, at about 15^h, was followed by a wave in Dec. at 19^h during which a diminution of 12′ took place in 30 minutes. Quiet then supervened until the end of the month, interrupted only by occasional small movements of no special significance.

The range in declination during the month was from 12°.21′·3 on 8th to 12°.49′·3 on 22nd; in horizontal force, from ·18478 on 9th to ·18598 on 11th; in vertical force from ·42884 on 9th to ·42957 on 5th.

February.—The first appearance of disturbed conditions in February was on 6th at about 16^h. A wave in Dec. (−10′) at 18^h and another (−15′) at 23^h were the chief movements. The traces became slightly unsteady during the next two days, movement being generally oscillatory—though a prominent wave in Dec. (−15′) and in H.F. (−75γ) occurred at 18^h on 9th—and these conditions persisted more or less until the morning of 14th. After two days of quiet, unsteadiness was renewed, to develop rapidly into disturbed conditions just before midnight on 16th. The H.F. trace was first affected and showed a wave (+80γ) between 23^h on 16th and 1^h on 17th. At 4^h on 17th all traces moved sharply, declination diminished 15′ and V.F. diminished 40γ in the ensuing half hour. The record of the disturbance is reproduced in Plates I and II. Considerable unsteadiness persisted. through 19th, continuing as minor oscillation until noon on 22nd, when unsteadiness again developed for a few hours before midnight. A short quiet period then set in, interrupted at 22^h on 25th by a wave in each trace (about 50γ), and terminated at $19\frac{1}{2}^h$ on 26th by a minor but very distinct oscillatory disturbance lasting till $7\frac{3}{4}^h$ on 27th. The most considerable disturbance of the month developed soon after 15^h on 27th and though comparatively short-lived was rather violent during its most active stage. The traces are reproduced in Plate III.

The range in declination during the month was from 11°.53′·2 to 13°.7′·5 both on 27th; in horizontal force from ·18298 on 27th to ·18647 on 16th; in vertical force from ·42795 to ·43037 both on 27th.

March.—During the first six days there was a slight unsteadiness in the declination and horizontal force traces and a few small isolated waves occurred in each. Between 18^h and 19^h on 3rd a rather rapid increase in H.F. (+70γ) was recorded. Between $11\frac{1}{2}^h$ and 15^h on 5th small but very vigorous oscillations showed in all traces, those in H.F. being of the greatest amplitude (±20γ). During the afternoon of 7th unsteadiness increased considerably and many minor oscillations disturbed the traces in the next 24 hours. There was also a prominent wave in Dec. (−15′) between 19^h and 20^h on 8th. At $13^h.55^m$ on 11th all traces were simultaneously disturbed by a movement of the " sudden commencement " type. The movement was specially marked in H.F. which suffered a diminution of 50γ followed immediately by an increase of 100γ, the whole range of 150γ being covered in four minutes of time. The threatened disturbance, however, did not develop until twelve hours later. It is reproduced in Plates IV and V.

A second disturbance, having rather definite time limits, occurred between $15^d.15^h$ and $16^d.6^h$, during which the H.F. trace showed a series of oscillations, while the Dec. trace moved irregularly at a decreased value. V.F. at first increased and then a long irregular decline of over 200γ set in, lasting from 17^h on 15th to 3^h on 16th, which had only partially recovered at the end of the main disturbance.

There were sporadic fluctuations in all traces during the next three days, leading up to another minor disturbance which lasted approximately 24 hours from March 20^d 18^h. Really quiet conditions were not reached however, until 30th, and on two of the intervening days, 26th and 29th, a prominent wave in the H.F. trace occurred in the late evening.

The range in declination during the month was from 12°.15′·6 to 13°.3′·1 both on 12th; in horizontal force from ·18335 on 12th to ·18641 on 11th; in vertical force from ·42795 to ·43085 both on 12th.

April.—No movements of significance took place in the traces until $9^h.28^m$ on 4th when a sharp double wave having the appearance of a " sudden commencement " occurred in all traces. The disturbance which followed, however, was very short-lived and of small amplitude, being limited almost entirely to irregular oscillation in the H.F. trace.

Mainly quiet conditions again supervened and lasted, with two or three unimportant interruptions, from the morning of 5th to the evening of 15th. A short period of general unsteadiness then set in, lasting until the end of 17th.

Temporary decreases in V.F. for about six hours during the nights of 15th and 16th accompanied by fluctuations of 15′ in Dec. and 80γ in H.F. were the chief features. Quiet conditions returned on 18th and lasted with trifling interruptions till the end of the month, by which time, however, slight unsteadiness had become persistent in H.F. and Dec.

The range in declination during the month was from 12°.24′·9 on 16th to 12°.54′·6 on 4th; in horizontal force, from ·18493 on 16th to ·18623 on 30th; in vertical force from ·42861 to ·42961 both on 16th.

May.—Slight unsteadiness in the traces, particularly in H.F., continued till 4th and was resumed on 6th. The 10th was quiet, but on 11th disturbance gradually increased to become general until the end of 17th. The period from 2^h to 20^h on 13th was the most active. A series of oscillations in H.F. amounting at maximum to more than 60γ, occurred during this time, while a depression in the V.F. trace (−50γ) coincided with the oscillations. A further period of slight general unsteadiness set in on 19th and lasted to the end of the month. The only prominent feature was a wave in H.F. (−70γ) at 6^h on 23rd.

The range in declination during the month was from 12°.20′·4 on 14th to 12°.48′·9 on 13th; in horizontal force, from ·18502 on 15th to ·18626 on 14th; in vertical force, from ·42864 to ·42955, both on 13th.

June.—The unsteadiness with which the last month concluded continued till the end of 3rd. Three quiet days succeeded and were followed by a period of minor disturbance extending from 8th to 12th, in which the prevailing feature was irregular oscillation, though the diurnal range in V.F. showed considerable increase, and there was also a change of + 100γ in H.F. between 14^h and $17\frac{1}{2}^h$ on 10th and again between 14^h and $16\frac{1}{2}^h$ on 11th. From 13th to 20th conditions were quiet or nearly so. On the afternoon of 21st, unsteadiness set in which developed during the next day into a series of many small oscillations in all the traces, which were maintained until the end of 24th. A prominent wave in H.F. (+75γ) occurred at 20^h on 22nd and several slightly smaller ones in the same trace appeared during the latter half of 23rd. The resumption of quiet conditions established during the evening of 25th was temporarily interrupted by irregularities in H.F. and Dec. between 14^h and 18^h on 28th, and more definitely during the afternoon of 30th.

The range in declination during the month was from 12°.23′·1 on 30th to 12°.47′·9 on 28th; in horizontal force, from ·18496 on 11th to ·18651 on 22nd; in vertical force, from ·42877 on 30th to ·42967 on 28th.

July.—Slight general unsteadiness in the H.F. trace was apparent during the first four days, which reached its maximum during the evening of 3rd. Between 15^h and 17^h on 5th a prominent double wave occurred in H.F. having a total range of 180γ the whole of which was covered during the rapid decrease between $16\frac{1}{2}^h$ and $16\frac{3}{4}^h$. The V.F. trace was similarly affected, though to a much smaller extent, but declination suffered little change. The general unsteadiness was maintained until 8th. After a nearly quiet day on 9th a disturbance which proved to be the largest of the month began with a very steep wave in the H.F. trace (+180γ) occurring at $11^h.36^m$—50^m. By far the greatest activity during this disturbance was displayed in H.F. The traces are reproduced in Plate VI. Nearly quiet conditions prevailed from 12th to 14th, when at about $16\frac{1}{2}^h$ a further disturbance began with a sharp increase in H.F. The subsequent movements in all traces were irregular in character. Between 12^h and 16^h on 16th, V.F. increased 100γ. Prominent waves in Dec. or H F. occurred at $15^d.0^h$—2^h, $15^d.23^h$—24^h, $16^d.15^h$, $16^d.18^h$, $16^d.20^h$, and the disturbance lasted, with a period of comparative quiescence between $16^d.0^h$ and $16^d.12^h$, until the end of 16th. Conditions remained slightly disturbed without any marked feature until the end of 26th, though 19th was practically a quiet day. A small movement of the "sudden commencement" type at $13^h.36^m$ on 24th was followed by about six hours' minor disturbance, mainly in H.F., but no storm developed, the largest wave being only +80γ.

There were two or three isolated movements during 25th and 26th; then a quiet period followed which lasted till the evening of the 30th. The slight unsteadiness which afterwards set in was precursor of a disturbance beginning abruptly with upward movement in all traces at $31^d.21.^h7^m$. The commencement was not typically "sudden" however, and only the H.F. trace was seriously displaced (+80γ).

The range in declination during the month was from 12°.20′·8 on 15th to 12°.49′·6 on 16th; in horizontal force, from ·18483 on 17th to ·18773 on 10th; in vertical force, from ·42853 on 15th to ·43001 on 16th.

August.—The month opened with a disturbance in progress which lasted altogether about thirty-three hours but at no time attained to any great activity. The traces are reproduced in Plate VII. The few movements on the succeeding three days were of no special significance, and after a short series of oscillatory movements in all traces between $4^d.23^h$ and $5^d.4^h$, definitely quiet conditions set in, lasting until the end of 10th. In the early hours of 11th the traces were disturbed at intervals by series of short rapid oscillations. By noon the disturbance was continuous and the amplitude occasionally exceeded 30γ in H.F. It had practically died out, however, by midnight. Two quiet days followed and then a disturbance began at about $14^d.12^h.30^m$ which rapidly developed into the largest of the month from the point of view of activity and amplitude, though it was not of great duration. The traces are reproduced in Plate VIII. Continuous disturbance of irregular oscillatory character persisted until the end of 19th. Prominent movements occurred at $18^d.0^h$—2^h and $19^d.13^h$—15^h; during the latter period H.F. increased nearly 100γ. Then quiet conditions gradually set in which, with a few minor interruptions, lasted till the end of 30th. On 31st a number of movements in Dec. and H.F. definitely brought this comparatively long period of quiet to a conclusion.

The range in declination during the month was from 12°.20′·6 to 12°.49′·2 both on 1st; in horizontal force, from ·18465 on 18th to ·18706 on 14th; in vertical force, from ·42873 on 15th to ·43008 on 14th.

September.—There were a few isolated movements on 1st and 2nd and these were succeeded by steady traces until the end of 6th. At $6^d.23^h.40^m$ abrupt movement in all traces initiated a disturbance of irregular character lasting twenty-four hours. The element chiefly affected was H.F. in which a diminution of 150γ occurred between 2^h and 10^h. A temporary decrease of Dec. amounting to 20′ at maximum was also recorded during the early hours of the disturbance.

Further disturbance developed during the evening of 9th. This appeared on the traces at first as a series of broad irregular waves on which numerous small oscillations were superposed. Later, the two characteristics were merged into a general unsteadiness, but oscillation again became a feature, and with increased amplitude, in the evening of 12th. The sharpest movements were shown on 14th, after which the disturbance gradually died out. From 17th to 21st only isolated and unimportant waves appeared. During the last hours of 21st a further disturbance developed, resembling in some respects the previous one, but quite short-lived. Movements of 20′ in Dec., both above and below the normal value occurred, and between $22^d.6^h$ and $22^d.11^h$ there was a diminution of 150γ in H.F. The value of V.F. also diminished considerably during the progress, but subsequently more than recovered and showed a range of approximately 100γ. From 23rd to 27th inclusive there was a varying degree of unsteadiness in the traces, which then, after a prominent movement in H.F. at 19^h—21^h, became quiescent for the remainder of the month.

The range in declination during the month was from 12°.16′·0 on 10th to 12°.47′·0 on 22nd; in horizontal force, from ·18440 on 22nd to ·18626 on 7th; in vertical force, from ·42863 on 22nd to ·42971 on 14th.

October.—During the first six days only minor movements occurred in the traces, though a movement in H.F. towards midnight of 4th just exceeded 50γ. A moderate disturbance then set in which commenced at 10^h on 7th and reached its culmination in Dec. about twelve hours later. From 14^h to 21^h there was an oscillatory decrease in Dec. amounting in all to 30′ practically the whole of which was recovered during the next hour. This latter movement was accompanied by a similar one in H.F. (+100γ) and was followed by a sharp decrease of V.F. The most prominent movements in H.F. occurred between 17^h and 24^h on 8th and took the form of three similar steep and almost equally spaced peaks, the last of which indicated a rapid surge of over 120γ increase. These had counterparts, though much smaller, in V.F. The main disturbance then subsided, but on 9th several isolated waves in the Dec. and H.F. traces showed that it had not entirely ceased. During 10th, 11th and 12th detached movements were recorded of as much as 10′ in Dec. and 50γ in H.F.; and unsteady conditions prevailed throughout 13th. The next two days were relatively quiet, this state continuing until $11^h.14^m$ on 16th when the most considerable disturbance of the month began almost suddenly. The traces are reproduced in Plate IX. Disturbed conditions were recrudescent during the 17th, 18th and 19th. Between 19^h and 23^h on 17th waves of −20′ in Dec. and over 100γ in H.F. appeared in the traces; and during the night of 18th—19th declination was about 20′ less than the mean value for four or five hours. By noon on 19th, however, the disturbance had practically died out and further movements were of an isolated and unimportant character. A short quiet period supervened lasting for the three days 26th—28th. Further unsteadiness then developed, which began with a prominent wave in Dec. (−15′) and in H.F. (+50γ) soon after $29^d.0^h$. Several large movements between 19^h and 24^h on 30th (approximating to 100γ in H.F.) marked the climax of the disturbance which then declined to a condition of general unsteadiness with which the month ended.

The range in declination during the month was from 12°.1′·6 on 16th to 12°.48′·6 on 17th; in horizontal force, from ·18397 on 16th to ·18655 on 8th; in vertical force, from ·42875 on 19th to ·42998 on 16th.

November.—A small disturbance during the evening of 1st was repeated at approximately the same time on the 2nd. Between 5^h and $10\frac{1}{2}^h$ on 3rd an irregular diminution of H.F. amounting to 150γ took place which preceded the development of a considerable disturbance. This disturbance appears to be a repetition of that of October 8—9. Certain resemblances in detail are to be noted, in particular three prominent surges in H.F. which here recurred after an interval of 25 days 21 hours with rather greater amplitude than on October 8.

The traces are reproduced in Plate X. One or two relatively large waves appeared during each of the next few days. The most important of these took place at 16^h on 7th and measured −20′ in Dec., −80γ in H.F. and +25γ in V.F. From noon on 8th to the end of 14th almost quiet conditions prevailed, disturbed only by small casual movements, though at $8^d.21^h.50^m$ a sharp increase in H.F. resembling a "sudden commencement" might have been the precursor of a storm. On 15th unsteadiness gradually increased until for a period between 15^h and 22^h on 16th the traces showed considerable agitation. Several irregular oscillations amounting to 15′ in Dec. 75γ in H.F. and accompanied by a temporary increase of 50γ in V.F. marked this period. Thereafter practically quiet conditions returned which lasted, except for a short interval of oscillatory unsteadiness on the evening of 20th during which V.F. rose and fell 50γ, until the night of 26th. From then till the end of the month traces were generally rather unsteady without, however, showing any marked features.

The range in declination during the month was from 12°.8′·7 to 12°.46′·1; in horizontal force from ·18411 to ·18614; in vertical force from ·42888 to ·43005. These extreme values all occurred on Nov. 3rd.

December.—After two days of quiet conditions there followed a period of considerable disturbance lasting roughly from $3^d.20^h$ to $12^d.12^h$. The most active section of the traces was comprised in the period ending at midnight of 6th. A wave of −30′ in Dec. occurred at the very beginning of the disturbance, while movements approaching 100γ in H.F. took place on each of the earlier days. For seven hours on the night of 4th declination remained about 15′ below normal value, and a range of 100γ in V.F. occurred on the same day. A temporary recrudescence of activity during the night 11th—12th was succeeded by a short quiet spell, but at noon on 16th traces were again becoming very active, a large general increase in V.F. (+100γ) and steep waves at 19^h in Dec. (−40′) and H.F. (−140γ) being the most prominent features. The disturbance had subsided before midnight, however, and after a further short period of activity between 18^h and 23^h on the next day, when somewhat similar features were repeated on a smaller scale, conditions tended rapidly to quiescence. Unsteadiness was next apparent in the early hours of 22nd, and was considerable later in the day. A wave of +80γ occurred in H.F. at $22^d.20\frac{1}{2}^h$; another at $24^d.22\frac{1}{2}^h$; while the V.F. trace showed much irregularity at the former place. After these movements nearly quiet conditions supervened during the rest of the month, disturbed only by isolated waves of no great amplitude.

The range in declination during the month was from 12°.2′·7 on 3rd to 12°.43′·6 on 16th; in horizontal force, from ·18359 on 16th to ·18597 on 22nd; in vertical force, from ·42889 on 5th to ·43025 on 16th.

EXPLANATION OF THE PLATES.

The magnetic changes figured on the Plates are those for days of disturbance selected by the International Committee :—February $16^d\ 12^h$–$17^d\ 12^h$; February $17^d\ 12^h$–$18^d\ 12^h$; February $27^d\ 15^h$–$28^d\ 15^h$; March $11^d\ 12^h$–$12^d\ 12^h$; March $12^d\ 12^h$–$13^d\ 12^h$; July $10^d\ 6^h$–$11^d\ 6^h$; July $31^d\ 20^h$–August $1^d\ 20^h$; August $14^d\ 12^h$–$15^d\ 12^h$; October $16^d\ 10^h$–$17^d\ 10^h$; November $3^d\ 1^h$–$4^d\ 1^h$.

The time is Greenwich Mean Time (commencing at midnight and counting the hours from 0 to 24).

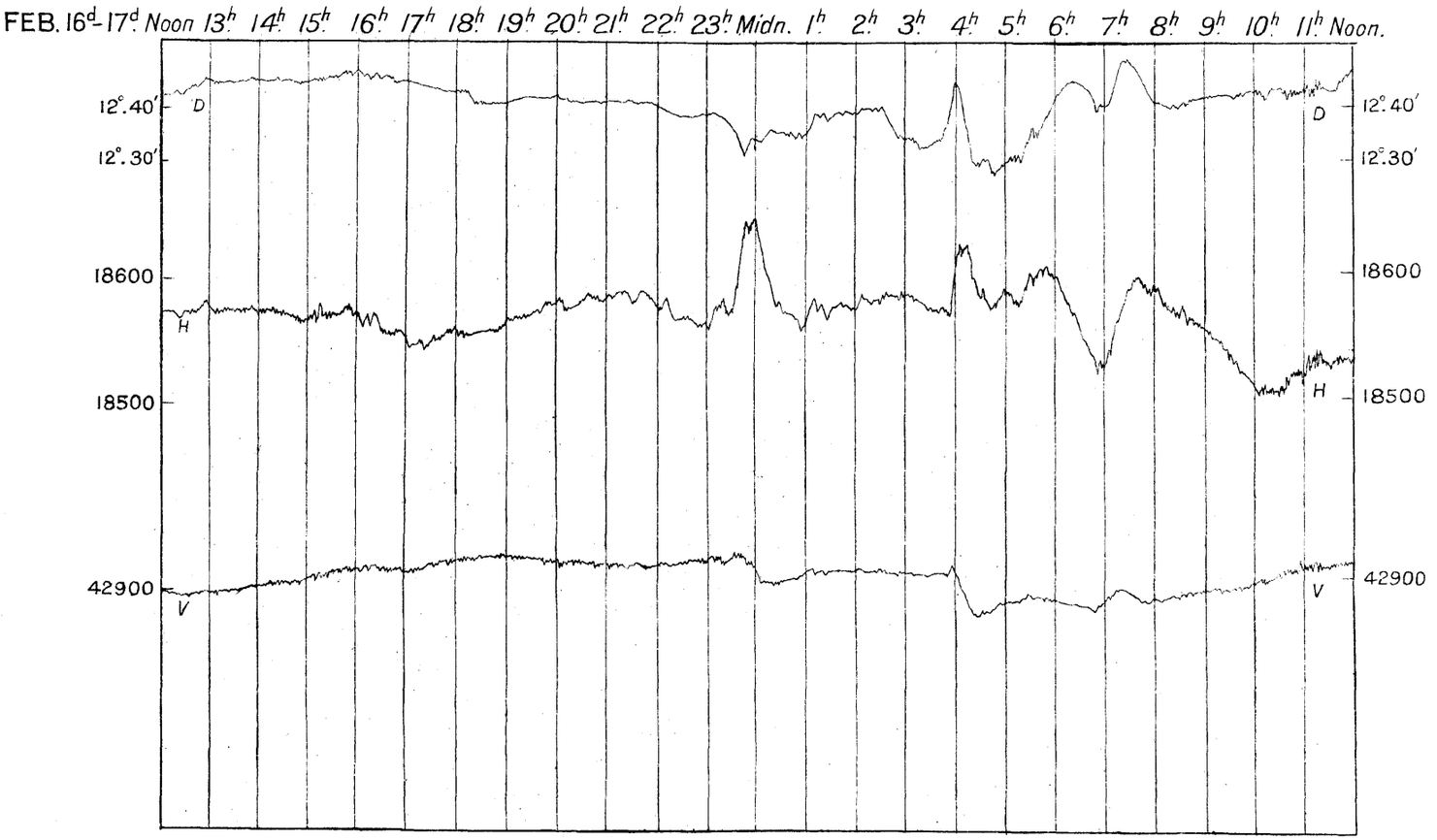
Magnetic declination, horizontal force and vertical force are indicated by the letters D, H, and V respectively.

Scales for reading the traces in units of γ (·00001 C.G.S.) are given at the foot of each page, and a datum line is marked for each trace at the sides of the diagram.

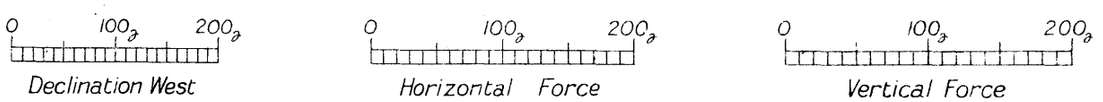
Declination may be read in arc by the scale at the side of the diagram.

Upward motion indicates increase of declination west, and increase of force in all cases.

MAGNETIC DISTURBANCES AS RECORDED AT THE ABINGER *(Surrey)* MAGNETIC STATION IN THE YEAR 1929.



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



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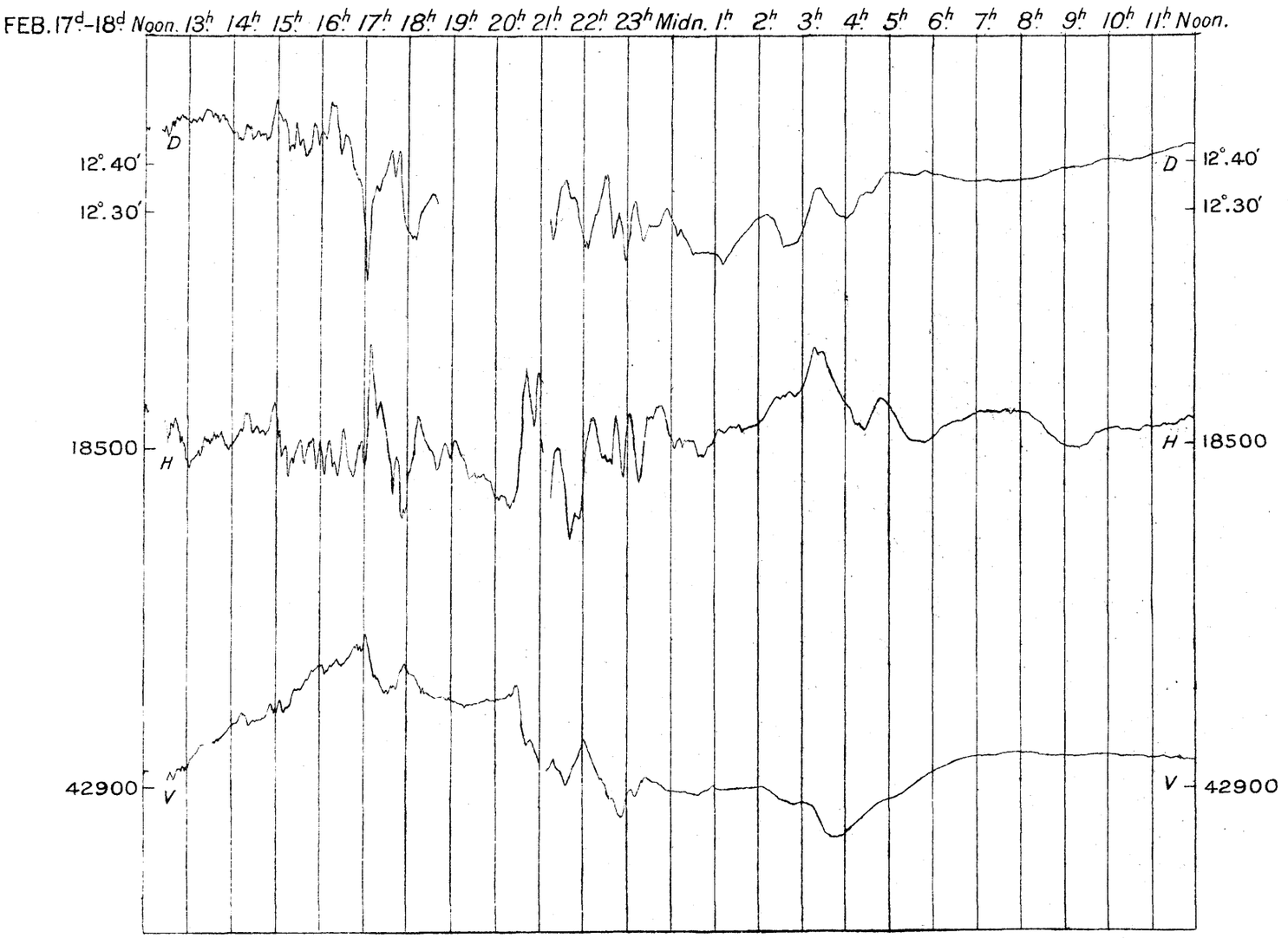
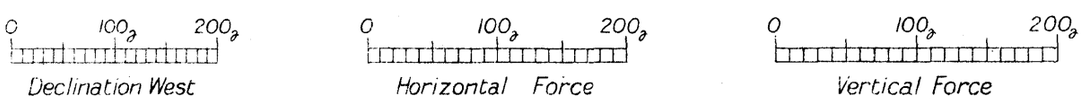
MAGNETIC DISTURBANCES AS RECORDED AT THE ABINGER *(Surrey)*. MAGNETIC STATION IN THE YEAR 1929.



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



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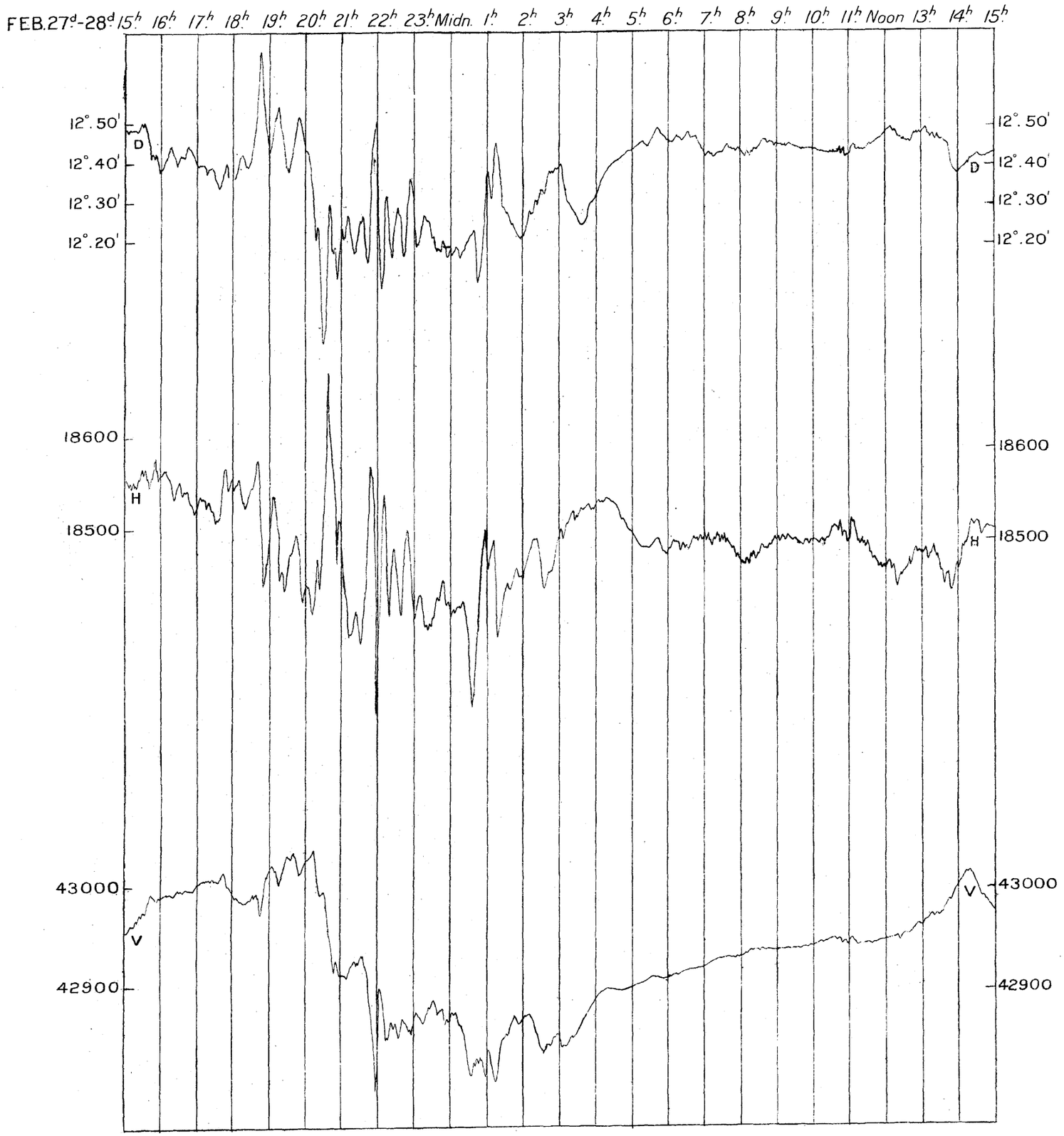
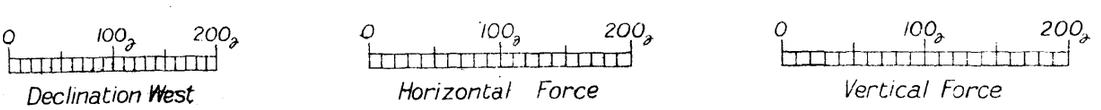
MAGNETIC DISTURBANCES AS RECORDED AT THE ABINGER *(Surrey)*. MAGNETIC STATION IN THE YEAR 1929



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



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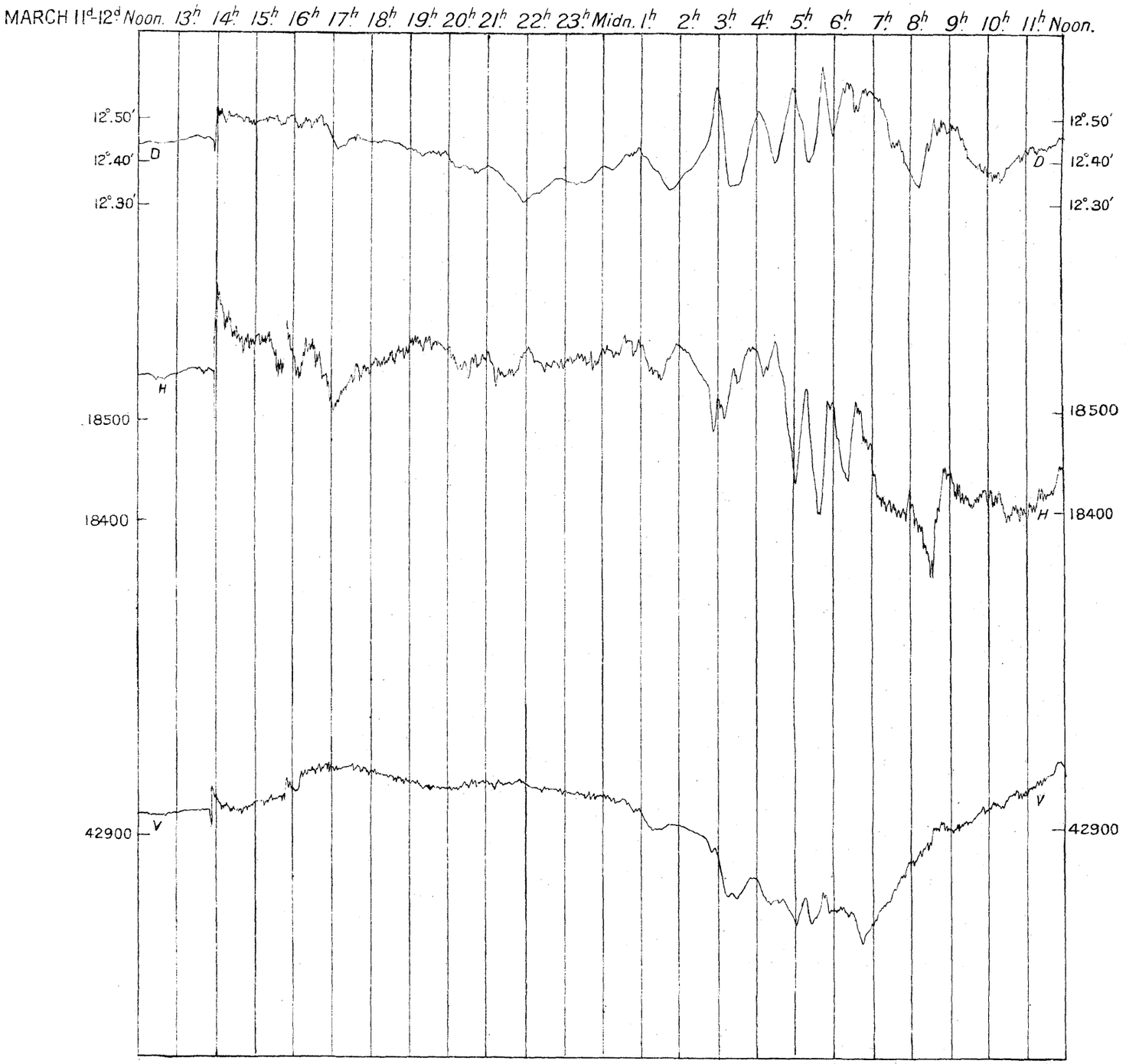
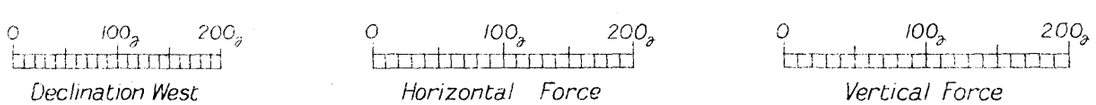
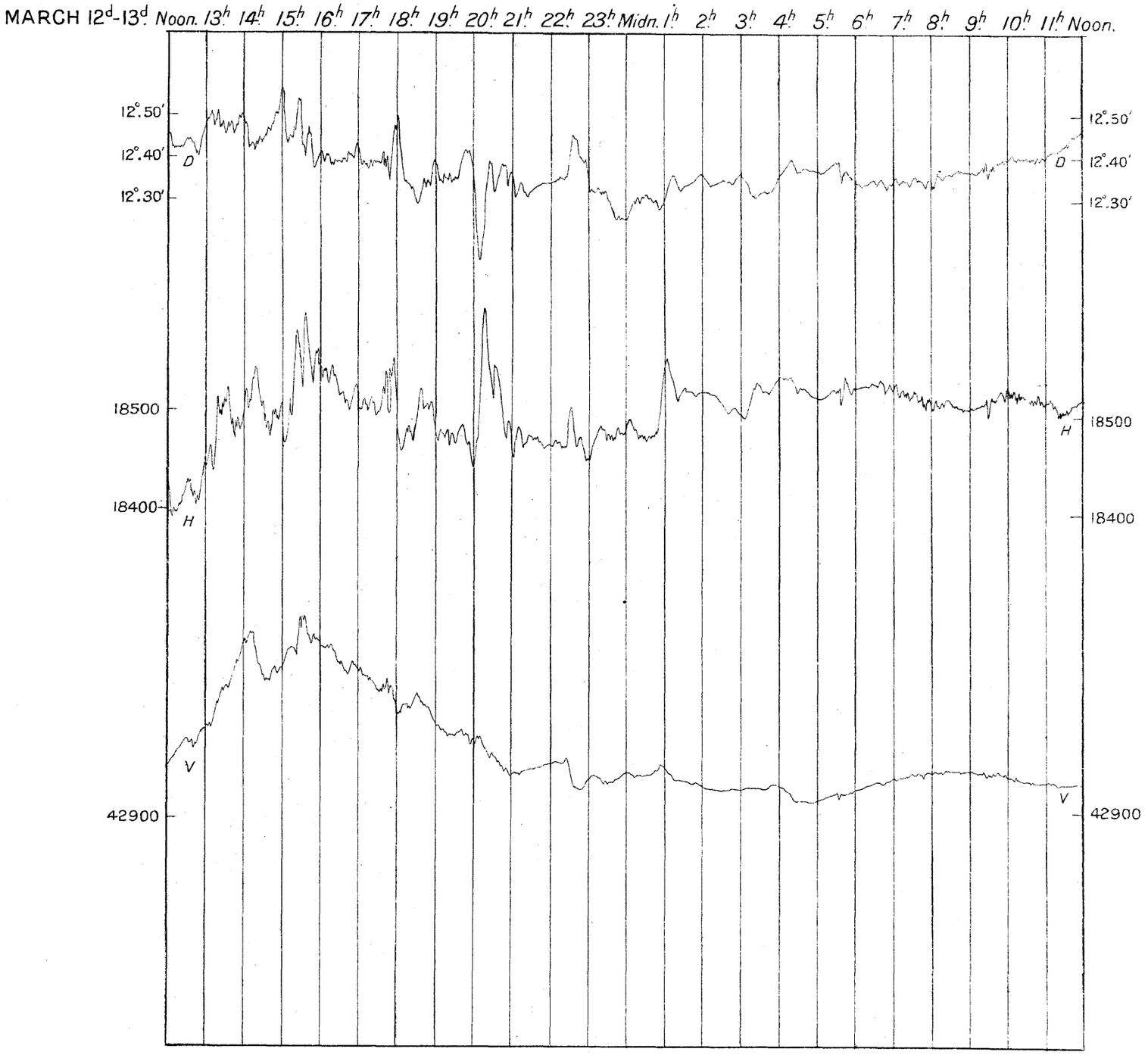


SCALES FOR MAGNETIC ELEMENTS IN C. G. S. UNITS



MAGNETIC DISTURBANCES AS RECORDED AT THE ABINGER *(Surrey)* MAGNETIC STATION IN THE YEAR 1929.



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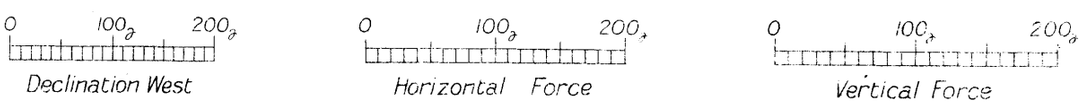

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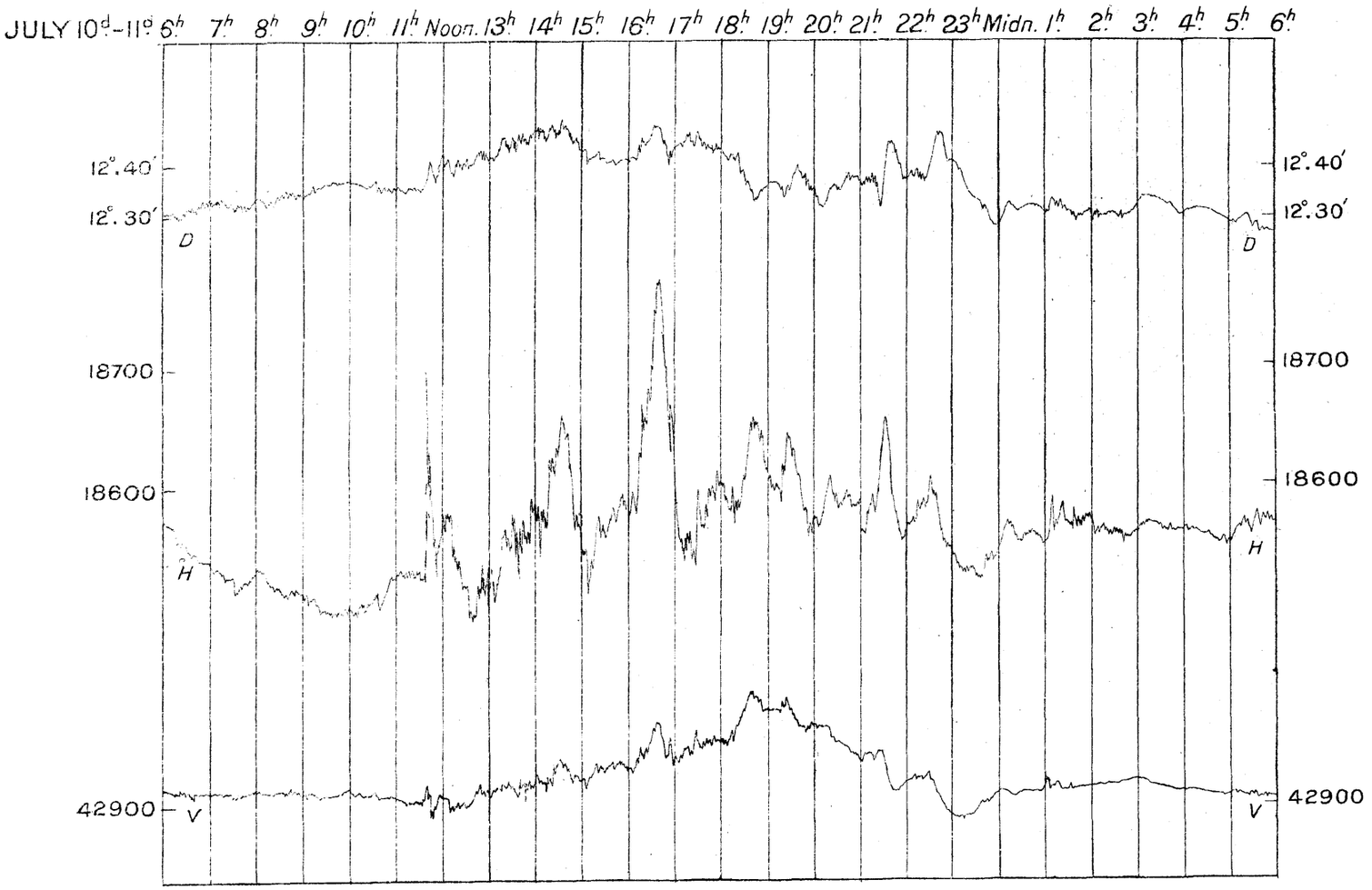
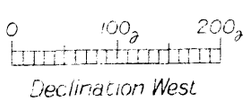
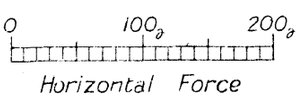
MAGNETIC DISTURBANCES AS RECORDED AT THE ABINGER *(Surrey)*. MAGNETIC STATION IN THE YEAR 1929



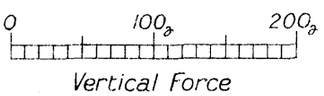
SCALES FOR MAGNETIC ELEMENTS IN C. G. S. UNITS.



Declination West



Horizontal Force



Vertical Force

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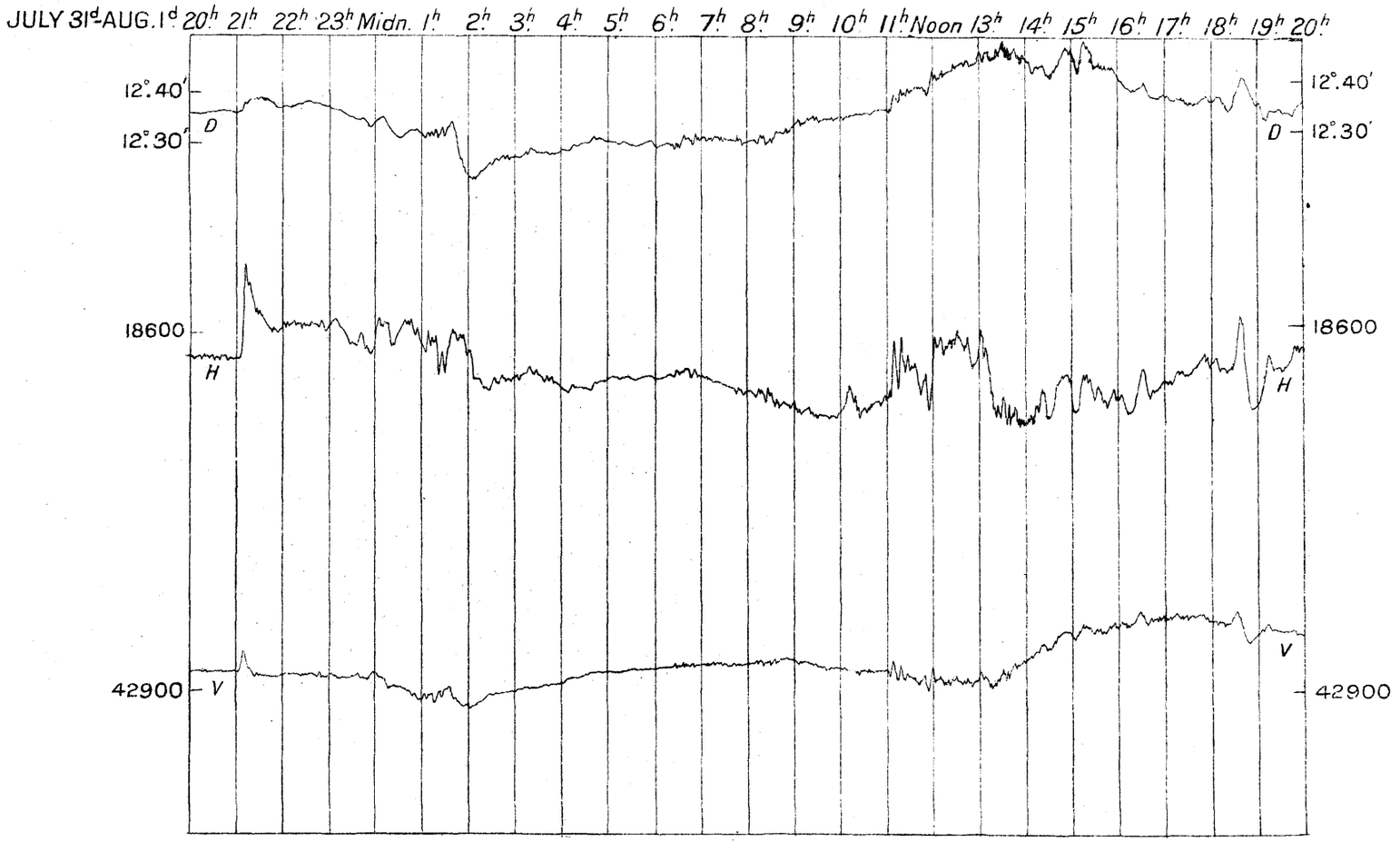
MAGNETIC DISTURBANCES AS RECORDED AT THE ABINGER *(Surrey)* MAGNETIC STATION IN THE YEAR 1929.



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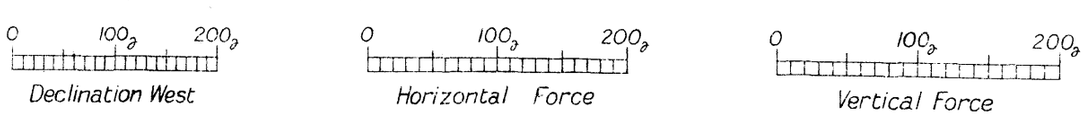

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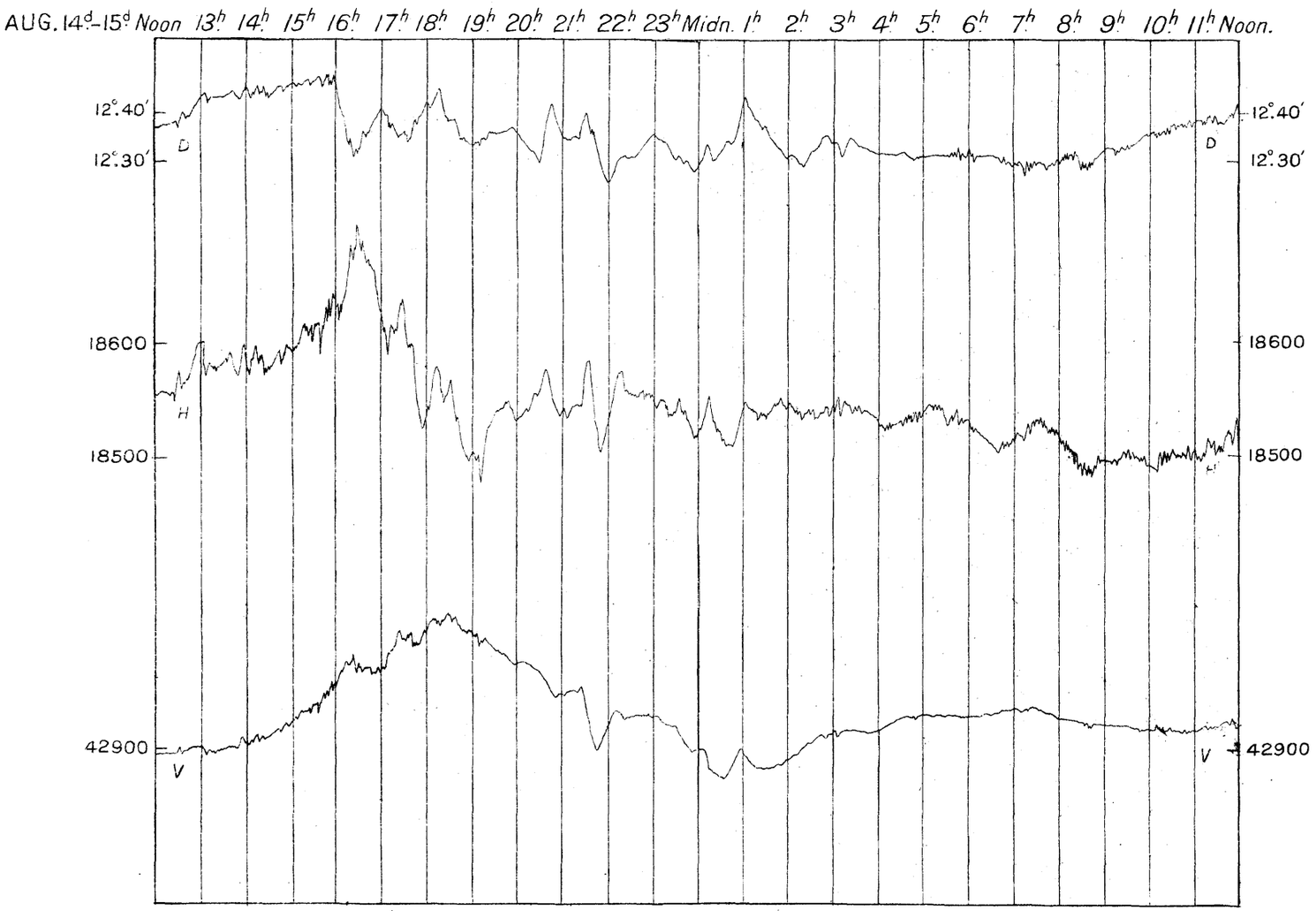

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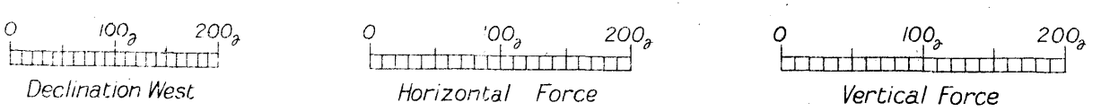

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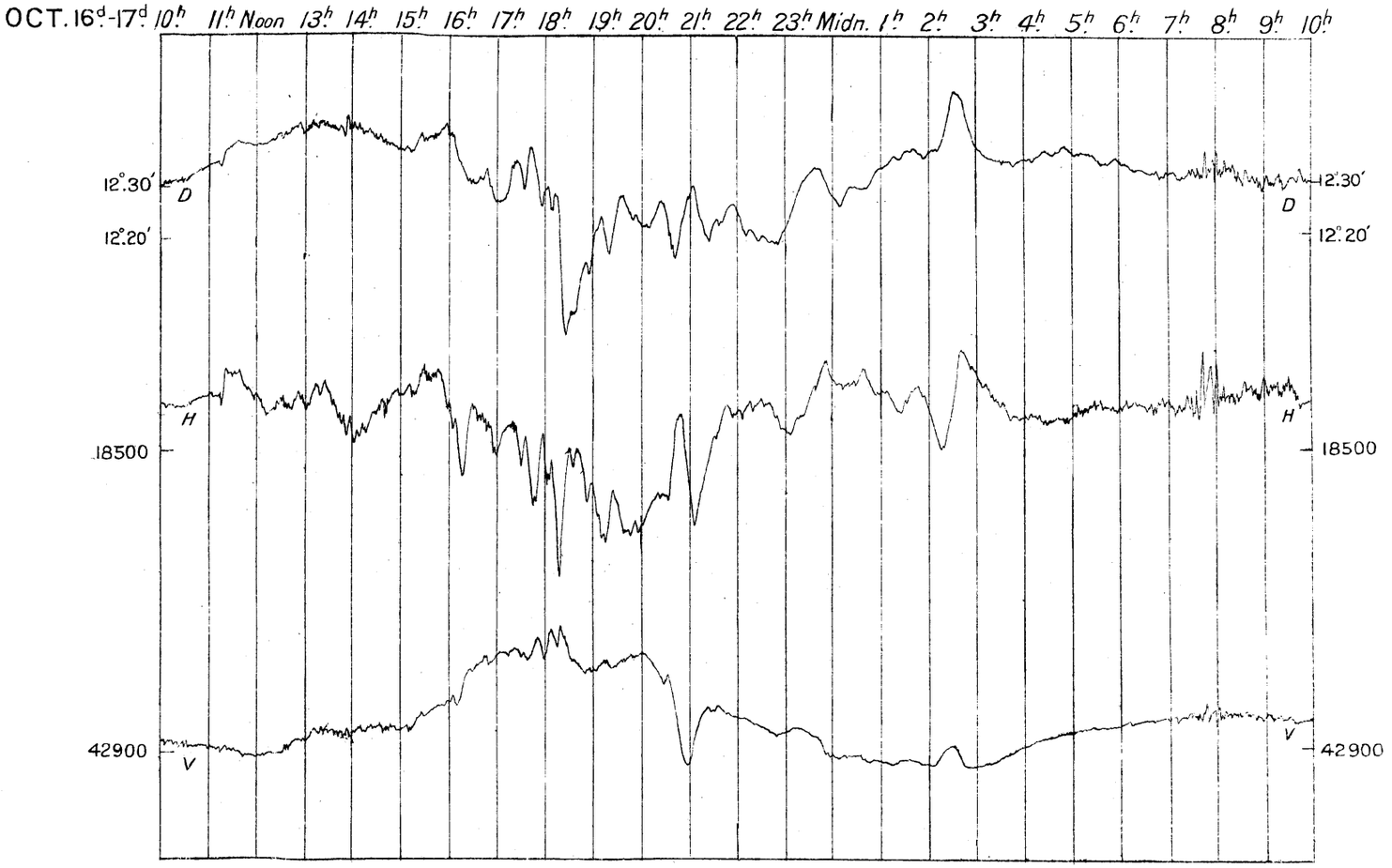

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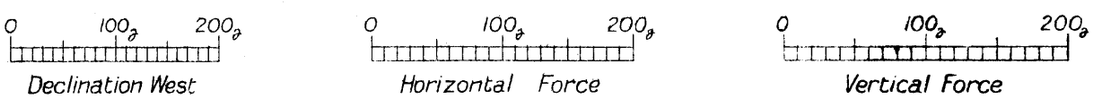

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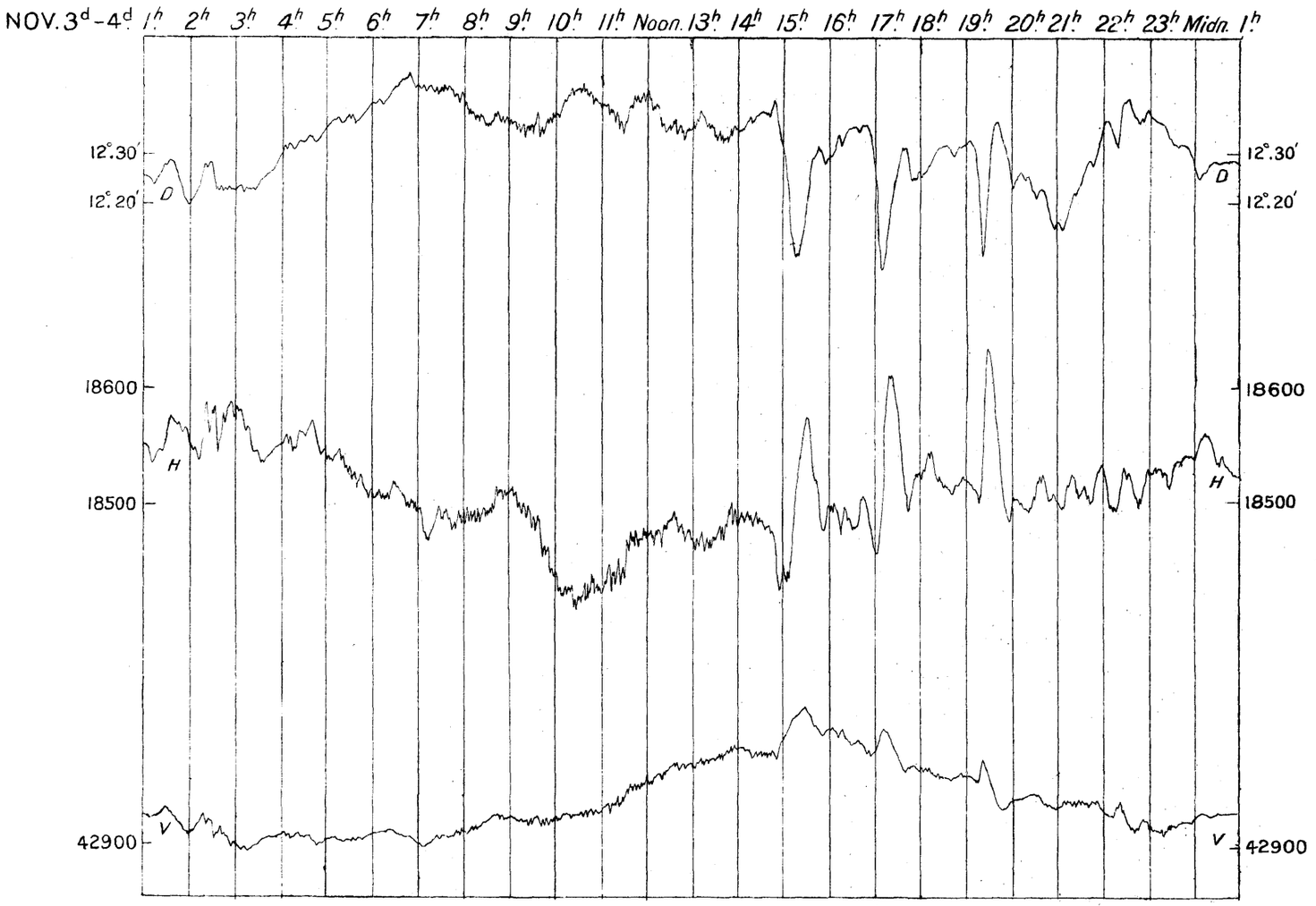

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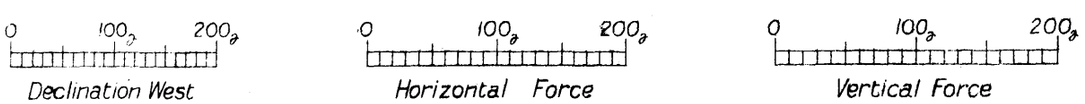

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GREENWICH METEOROLOGICAL OBSERVATIONS, 1929.

INTRODUCTION.

Meteorological Instruments.

The majority of the meteorological instruments are situated in an enclosure in Greenwich Park, 350 yards to the east of the Astronomical Observatory. In the enclosure there are two sets of thermometers used for ordinary eye observations, the photographic wet-bulb and dry-bulb thermometers, thermometers for solar and terrestrial radiation, two earth thermometers, and two rain-gauges.

The anemometers, the self-registering rain gauge and the sunshine recorder are fixed above the roof of the Octagon Room (the ancient part of the Observatory).

Subjects of Observation in the year 1929.

The observations comprise eye observations of the ordinary meteorological instruments, including the barometer, dry- and wet-bulb thermometers, radiation and earth thermometers; continuous photographic record of the variations of the barometer, dry- and wet-bulb thermometers, and atmospheric potential gradient; continuous automatic record of the direction, pressure and velocity of the wind, and of the amount of rain; registration of the duration of sunshine, and, at night, of the visibility of stars near the Pole; general record of ordinary atmospheric changes of weather, including numerical estimation of the amount of cloud, special cloud observations in connection with the International Balloon-ascents, estimations of "visibility", and occasional phenomena.

Greenwich mean time, reckoning from midnight to midnight, and counting from 0 to 24 hours, has been employed throughout the meteorological section, except in regard to the sunshine registers (see p. E 7).

STANDARD BAROMETER.---The standard barometer is Newman No. 64. Its tube is $0^{in.}\cdot565$ in diameter, and the depression of the mercury due to capillary action is $0^{in.}\cdot002$, but no correction is applied on this account. The cistern is of glass, and the graduated scale and attached rod are of brass; at its lower end the rod terminates in a point of ivory, which in observation is made just to meet the reflected image of the point as seen in the mercury. The scale is divided to $0^{in.}\cdot05$, subdivided by vernier to $0^{in.}\cdot002$. The barometer was mounted in 1840 on the southern wall of the western arm of the Upper Magnet Room at a height above mean sea level of 159 feet. It was transferred to the New Magnetograph House on 1917 April 3, where the height above mean sea level is 152 feet. (See also p. E 9.)

The barometer is read at 9^h, 12^h (noon), 15^h, 21^h, every day. Each reading is corrected by application of an index-correction, and reduced to the temperature 32°F. The readings thus found are used to determine the value of the instrumental base-line on the photographic record.

THE PHOTOGRAPHIC BAROMETER.—A siphon barometer is employed which, at its open end, operates a plunger resting on the surface of the mercury. On account of the optical magnification associated with a moving mirror at some distance from the recording drum, the motion of the plunger must be mechanically reduced in being transferred to the arm which carries the mirror. In the actual arrangement two levers are used. One is connected to the stem of the plunger resting on the free surface of the mercury and is 12 inches long from plunger to pivot. A pin with a rounded conical point is screwed into this lever at a distance of 1 inch from the pivot. On this pin rests the plane under-surface of a shorter lever, which is 4 inches long from its pivots to this pin, and is set at right angles to the first lever. Both levers are approximately horizontal in their mean position. On the short lever is mounted the moving mirror of the instrument horizontally in a suitable frame attached to the lever, just above the pivots of the latter. The first lever lies east and west, so that the axis about which the mirror turns is in the same direction. The recording drum is horizontal and the motion of the beam of light is transformed so as to be horizontal by a fixed right-angled prism supported above the mirror. A lens of suitable focus is mounted in a vertical plane in front of the prism, and brings the beam of light from the straight-filament lamp to a focus on the drum. A base-line mirror, similar to the moving mirror, is mounted in a vertical plane behind the lower half of this lens. Provision is made for all necessary adjustments of the directions of the two beams of light. The weight of the plunger and lever mechanism is relieved

by a balance weight on the far side of the pivot, so that the plunger rests on the mercury surface without appreciably depressing it.

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

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

The photographic sheets being $9\frac{1}{4}$ inches wide, a range of over 3 inches barometric motion can be included, and change of zero is unnecessary.

DRY- AND WET-BULB THERMOMETERS.—The standard dry- and wet-bulb thermometers and maximum and minimum self-registering thermometers, both dry and wet, are mounted on a revolving frame planned by Sir George Airy. This, together with details of the thermometers and the corrections applicable to them, may be found fully described in the volumes for 1912 and previous years.

Since 1899 January 4 this stand has stood in an open position in the Magnetic Pavilion Enclosure.

The corrections to be applied to the thermometers in ordinary use are determined by comparison with the standard thermometer No. 515, kindly supplied to the Royal Observatory by the Kew Committee of the Royal Society.

The dry-bulb thermometer used throughout the year was Negretti and Zambra, No. 45354. The correction—0°·4 has been applied to the readings of this thermometer. The wet-bulb thermometer used throughout the year was Negretti and Zambra, No. 94737. The correction—0°·2 has been applied to the readings of this thermometer.

The dry- and wet-bulb thermometers are read at 9^h, 12^h (noon), 15^h, 21^h every day. Readings of the maximum and minimum thermometers are taken at 9^h, 15^h, and 21^h every day. Those of the dry- and wet-bulb thermometers are employed to correct the indications of the photographic dry- and wet-bulb thermometers.

PHOTOGRAPHIC DRY-BULB AND WET-BULB THERMOMETERS.—The apparatus, which has been in use since 1887, was designed by Sir William Christie. Until 1917 it stood in substantially the same position in the Observatory grounds, to the north of the "New Observatory." It was transferred to the Magnetic Pavilion Enclosure on 1917 February 21. It is placed in a shed 8 feet square, standing upon posts about 8 feet high, and open to the north. The apparatus is screened from the direct rays of the sun, without impeding the circulation of the air. The recording mechanism is similar in general plan to that described in connection with the magnetometers. The traces consist of broad bands, due to the free passage of light (above the mercury column of the dry-bulb thermometer, and through an air bubble in that of the wet-bulb thermometer) to the drum, crossed by fine lines caused by the shadows of the graduations of the thermometer tubes. The two traces fall on the same part of the cylinder as regards time scale. The stems of the thermometers are placed close together, each being covered by a vertical metal plate having a fine vertical slit, so that light passes through only at such parts of the bore of the tube as do not contain mercury. Further details of the thermometers and recording arrangements may be found in the volume for 1912. The scale value of the records is approximately 10° per inch.

RADIATION THERMOMETERS.—These thermometers are placed in the Magnetic Pavilion Enclosure, in an open position about 50 feet south-west of the building. The thermometer for solar radiation is a mercurial maximum thermometer with its bulb blackened and enclosed in a glass sphere from which the air has been exhausted. The thermometer employed was Negretti and Zambra, No. K2254. The thermometer for radiation to the sky is a spirit minimum thermometer, Negretti and Zambra, No. D11197. The thermometers are laid on short grass and freely exposed to the sky; they require no correction for index error.

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

OSLER'S ANEMOMETER.—This self-registering anemometer, devised by Mr. A. F.

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

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

The recording sheet is changed daily at noon. The time scale, ordinarily 15mm. to the hour can be increased 24-fold by altering the gearing.

A self-registering rain gauge of peculiar construction forms part of the apparatus ; this is described under the heading " Rain Gauges " in previous volumes.

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

The values of wind velocity V given in the tables are three times the actual velocity v of the cups. From tests made by Mr. W. H. Dines at Hersham in 1889, on his whirling machine, it would appear that the relation between V and v is more correctly given by

$$V=4{\cdot}0+2{\cdot}0\,v,$$

and that the instrument fails to record wind velocities less than 4 miles per hour. The values of the wind velocity given by the formula $V=3\,v$ would thus be too high when V exceeds 12. Since the two formulæ agree, however, for V=12, the mean values of the wind velocity (which seldom differ much from 12) will be approximately correct in either case; therefore, for the sake of continuity and simplicity, the formula $V=3\,v$ is retained in use. In this volume, however, the greatest hourly measures (p. E 46) are given according to both formulæ, and the least hourly measures are omitted.

RAIN GAUGES.—During the year 1929 three rain gauges were employed, placed at different elevations above the ground.

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

Gauge No. 6 is an 8-inch circular gauge placed with the receiving surface 5 inches above the ground in the Magnetic Pavilion Enclosure, about 10 feet north-west of the thermometer stand. No. 8 is a newer gauge of the same diameter, but of the modified Snowdon pattern adopted by the Meteorological Office, having its receiving surface 1 foot above the ground. It was brought into use 1908 January 1, being fixed SW by W from No. 6 with a clear space of 6 feet between the rims. No. 6 is the standard gauge, and is read daily at 9^h, 15^h, and 21^h Greenwich Mean Time. No. 8 is used as a check on the readings of No. 6 and is read at 9^h only as a rule.

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

The gauges are also read at midnight on the last day of each calendar month.

The monthly amounts of rain collected in gauges Nos. 6 and 8 are given on page E 46 of the Meteorological Results.

ELECTROMETER.—The instrument was out of use during a considerable part of the year and no results for 1929 are published in this volume.

SUNSHINE RECORDER.—The hourly results relate to *apparent* time. The instrument in use is of the Campbell-Stokes pattern, with 4-inch glass globe. It was examined at the Meteorological Office on September 13, 1926, and was found to be in satisfactory condition. It now bears the serial number M.O. 113. The recorded durations are those of *bright* sunshine, no register being obtained when the sun shines faintly through fog or cloud, or is very near the horizon.

It was noticed at the Meteorological Office, Air Ministry, that the monthly totals of sunshine recorded at the Royal Observatory had shown a tendency to diminish in comparison with the totals at other observing stations. At the suggestion of the Director of the Meteorological Office a selection of sunshine cards with traces much broken by cloud was made at random from previous years' records, and the traces were re-measured by Meteorological Office observers according to the standards in use by them.

The years for which comparisons were made were 1901, 1902, 1912, 1913, 1920, 1921, 1925, 1926. Ten specimens were examined from each year and the result of the comparison was that in the earlier years the Greenwich estimated total on days of intermittent sunshine was consistently about 8 per cent. in excess of that obtained according to present Meteorological Office standards, while in the four later years the totals were similarly about 13 per cent. in excess.

In the same period the change at Kew Observatory appeared to have been from about 4 per cent. excess in the early years to practical agreement during the later years.

It seemed desirable that conformity with Meteorological Office standards should be established and maintained as far as possible, and with this in view independent measures of selected sunshine cards taken five from each of the months of January, July and September, 1929, have been made at the Meteorological Office. These show an excess of about 3 per cent. on the part of Greenwich estimations.

Similar comparisons will be made annually in future.

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

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

The lens is of 18·8 inches focal length and 0·8 inch aperture. The actual camera is enclosed in a larger box about twice its length, extending nine inches beyond the lens. The lens itself is further surrounded by a hood. Adequate protection from dew is thus obtained, and also from rain, except when driven hard from the north. The photographic plates used are ordinary quarter-plate ($3\frac{1}{4}$ inches by $4\frac{1}{4}$). Exposure is intended to be made during the period that the sun remains more than 10° below the horizon. The period thus centres approximately to apparent midnight, but in practice the mean times of commencing and ending the exposure are not varied at intervals of less than seven days.

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

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

Meteorological Reductions.

The results given in the Meteorological Section refer to the civil day, commencing at midnight, except in the case of the Night-Sky Recorder, for which they relate to the period from dusk on the day named, to dawn of the following day.

All results in regard to atmospheric pressure, temperature of the air and of evaporation, with deductions therefrom, are derived from the photographic records, excepting that the maximum and minimum values of air temperature are those given by eye-observation of the ordinary maximum and minumum thermometers at 9^h, 15^h, and 21^h, reference being made, however, to the photographic register when necessary to obtain the values corresponding to the civil day from midnight to midnight. The hourly readings for the elements mentioned are measured direct from the photographic curves, and reduced so as to be based fundamentally, both as regards scale and zero, on the readings of the standard barometer and dry- and wet-bulb thermometers.

The barometer results are not reduced to sea-level, neither are they corrected for the effect of gravity, by reduction to the latitude of 45°. The monthly mean barometer reading is, however, corrected for the effect of the change of site of April, 1917 before deducing the deviation from the mean of sixty-five years 1841–1905 (pp. E 14–36). This correction, amounting to −·007 inch was by oversight omitted in the years 1917–1926.

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

In the same way the mean hourly values of the dew-point temperature and degree of humidity in each month (pages E 41 and E 42) have been calculated from the corresponding mean hourly values of air and evaporation temperatures (pages E 40 and E 41).

The excess of the mean temperature of the air on each day above the average of sixty-five years, given in the "Daily Results of the Meteorological Observations," is found by comparing the numbers contained in column 6 with a table of average daily temperatures found by smoothing the accidental irregularities of the daily means deduced from the observations for the sixty-five years 1841–1905. In this

series the mean daily temperature from 1841 to 1847 depends usually on 12 observations daily, in 1848 on 6 observations daily, and from 1849 to 1905 on 24 hourly readings from the photographic record. The smoothed numbers are given in Table VII, *Reduction of the Greenwich Meteorological Observations*, Part IV and also in the introduction for 1910.

The daily register of rain contained in column 16 is that recorded by the gauge No. 6, whose receiving surface is 5 inches above the ground. This gauge is read at 9^h, 15^h, and 21^h Greenwich Mean Time. The continuous record of Osler's self-registering gauge shows whether the amounts measured at 9^h are to be placed to the same, or to the preceding civil day; and in cases in which rain fell both before and after midnight, also gives the means of ascertaining the proper proportion of the 9^h amount which should be placed to each civil day. The number of days of rain given in the footnotes, and in the abstract tables, pages E 39 and E 46, is formed from the records of this gauge. In this numeration only those days are counted on which the fall amounted to or exceeded $0^{in.}\cdot005$.

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

The mean amount of cloud given in the footnotes on the right-hand pages E 15 to E 37, and in the abstract table, page E 39, is the mean found from observations made at 9^h, 12^h (noon), 15^h, and 21^h of each civil day.

For understanding the divisions of time under the heading "Clouds and Weather," the following remarks are necessary:—The day is divided by columns into two parts (from midnight to noon, and from noon to midnight), and each of these parts is subdivided into two or three parts by colons (:). Thus, when there is a single colon in the first column, it denotes that the indications before it apply (roughly) to the interval from midnight to 6^h, and those following it to the interval from 6^h to noon. When there are two colons in the first column, it is to be understood that the twelve hours are divided into three nearly equal parts of four hours each. And similarly for the second column.

As regards the notation for clouds and weather, the following are the symbols which denote actual phenomena :—

a,	*aurora*	glm,	*gloom*	s,	*stratus*
ci,	*cirrus*	h,	*haze*	sc,	*scud*
cl,	*clouds*	ha,	*halo*	sh, shs,	*shower* (*s*)
co,	*corona*	hl,	*hail*	sl,	*sleet*
cu,	*cumulus*	l,	*lightning*	sm,	*storm*
d,	*dew*	m,	*mist*	sn,	*snow*
f,	*fog*	n,	*nimbus*	sq, sqs,	*squall* (*s*)
fr,	*frost*	prh,	*parhelion*	t,	*thunder*
fr.-cu,	*fracto cumulus*	prs,	*paraselene*	w,	*wind*
g,	*gale*	r,	*rain*		

The following are qualifying symbols used in conjunction with the above :—

c,	*continued*	li,	*light*	so,	*solar*
fq,	*frequent*	lu,	*lunar*	st,	*strong*
fr,	*frozen*	m,	*misty*	th,	*thin*
gt,	*great*	oc,	*occasional*	tk,	*thick*
ho,	*hoar*	p,	*partial* (*ly*)	v,	*variable*
hy,	*heavy*	slt,	*slight*	vv,	*very variable*

These symbols are used in combination : thus c-hy-r denotes continued heavy rain ; t-sm, thunderstorm ; p-cl, partially cloudy ; m-r, misty rain ; and so on. In regard to clouds, cl is omitted when the type is specified ; thus ci-cu denotes cirro-cumulus clouds.

Howard's nomenclature is used for clouds, and the figure indicates the proportion of sky covered by cloud, an overcast sky being represented by 10.

F. W. DYSON.

ROYAL OBSERVATORY, GREENWICH.
1930, *July* 30.

ROYAL OBSERVATORY, GREENWICH.

Results of Meteorological Observations

1929

MONTH and DAY, 1929.	Barometer. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Temperature. Of the Air. Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean	Greatest	Least	Degree of Humidity (Saturation = 100).	Temperature. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 4 ft. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
	in.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	in.	hours	hours
Jan. 1	30·022	40·0	34·9	5·1	37·1	− 1·5	34·9	31·2	5·9	11·5	3·6	79	46·0	29·1	45·1	0·000	1·1	7·9
2	30·148	40·1	34·4	5·7	36·3	− 2·1	33·4	28·3	8·0	14·3	5·3	71	58·0	27·4	45·0	0·000	2·5	7·9
3	30·224	36·8	34·0	2·8	35·2	− 3·1	31·8	25·6	9·6	12·8	7·9	67	44·0	28·5	44·9	0·000	0·0	7·9
4	30·204	35·2	33·5	1·7	34·5	− 3·8	31·7	26·3	8·2	12·4	5·1	71	40·3	31·1	44·6	0·000	0·0	7·9
5	30·058	34·5	29·1	5·4	30·9	− 7·3	29·4	26·8	4·1	7·7	1·6	83	37·2	28·0	44·5	0·019	0·0	8·0
6	29·953	31·2	30·0	1·2	30·4	− 7·7	29·0	26·1	4·3	6·9	2·7	83	34·8	28·0	44·3	0·000	0·0	8·0
7	30·171	32·9	29·3	3·6	31·1	− 6·9	30·2	28·3	2·8	6·2	0·7	89	32·4	27·8	44·1	0·000	0·0	8·0
8	30·554	34·5	29·1	5·4	32·4	− 5·5	31·8	31·0	1·4	3·4	0·0	93	33·0	21·1	44·0	0·000	0·0	8·0
9	30·572	36·7	30·1	6·6	33·4	− 4·5	33·2	32·8	0·6	2·2	0·0	98	45·4	25·1	44·0	0·000	0·0	8·1
10	30·336	37·9	32·1	5·8	35·0	− 2·9	34·5	33·5	1·5	2·9	0·8	95	41·0	29·4	43·9	0·302	0·0	8·1
11	30·366	35·4	30·4	5·0	32·5	− 5·4	31·1	28·7	3·8	7·9	1·4	85	34·7	29·0	43·9	0·001	0·0	8·1
12	30·481	33·9	28·4	5·5	31·3	− 6·6	29·6	26·5	4·8	7·0	0·6	81	39·0	20·0	43·8	0·000	0·8	8·2
13	30·400	37·0	23·3	13·7	32·3	− 5·7	31·1	28·9	3·4	6·3	0·0	87	41·5	13·1	43·6	0·018	0·0	8·2
14	30·206	39·0	34·1	4·9	36·4	− 1·6	35·5	34·0	2·4	5·2	1·6	91	43·7	28·0	43·8	0·000	0·0	8·2
15	29·801	40·0	33·2	6·8	35·6	− 2·5	33·4	29·6	6·0	9·2	1·9	78	43·7	27·5	43·2	0·022	0·0	8·3
16	29·800	34·1	26·7	7·4	30·5	− 7·8	27·9	22·1	8·4	16·0	5·2	70	52·2	19·6	43·1	0·045	4·5	8·3
17	29·845	35·2	25·1	10·1	29·6	− 8·9	28·5	26·2	3·4	6·8	0·0	86	42·9	18·6	43·0	0·000	0·0	8·4
18	29·962	43·7	26·8	16·9	36·6	− 2·0	35·6	33·9	2·7	5·3	0·4	90	57·8	21·2	42·9	0·005	0·4	8·4
19	30·125	46·3	32·4	13·9	38·8	+ 0·1	37·0	34·3	4·5	10·9	0·0	83	70·3	23·1	42·9	0·006*	6·8	8·4
20	30·081	45·9	28·8	17·1	34·9	− 3·9	33·3	30·6	4·3	10·4	0·0	83	79·0	16·0	42·7	0·004*	7·8	8·5
21	29·980	40·2	26·3	13·9	34·0	− 4·8	33·4	32·4	1·6	1·9	0·8	94	45·1	15·1	42·5	0·041	0·0	8·5
22	30·040	37·8	34·6	3·2	36·4	− 2·4	36·1	35·6	0·8	2·1	0·3	97	41·9	33·3	42·3	0·006	0·0	8·6
23	30·102	38·5	35·2	3·3	36·8	− 2·1	35·6	33·6	3·2	5·6	0·8	88	41·8	32·8	42·1	0·005	0·0	8·6
24	30·075	38·5	33·2	5·3	35·9	− 3·0	34·4	31·9	4·0	5·6	2·2	85	47·0	29·8	42·0	0·003	0·0	8·7
25	29·955	37·0	30·0	7·0	33·5	− 5·6	32·2	29·9	3·6	7·9	2·1	86	43·6	25·0	42·0	0·002	0·0	8·7
26	29·912	38·2	27·1	11·1	33·2	− 6·1	31·0	26·8	6·4	11·0	3·4	77	68·1	17·7	42·0	0·000	5·9	8·8
27	29·973	34·7	23·0	11·7	29·2	−10·3	27·6	23·8	5·4	8·2	1·8	80	40·1	12·1	42·0	0·000	0·3	8·8
28	29·907	42·4	29·0	13·4	35·3	− 4·3	34·2	32·3	3·0	7·1	0·0	89	54·1	20·2	42·0	0·052	0·0	8·9
29	29·862	47·0	34·0	13·0	39·0	− 0·7	38·1	36·6	2·4	4·5	0·6	92	44·0	31·9	41·9	0·126	0·0	8·9
30	29·959	51·0	43·4	7·6	47·2	+ 7·5	46·5	45·6	1·6	3·8	0·6	95	59·3	37·9	41·9	0·000	0·2	9·0
31	29·870	49·1	41·8	7·3	44·4	+ 4·7	43·6	42·7	1·7	2·9	0·8	93	71·0	38·0	41·9	0·077	0·2	9·0
																Sum		
Means	30·095	38·9	31·1	7·8	34·8	− 3·8	33·4	30·8	4·0	7·3	1·7	85·1	47·5	25·3	43·2	0·734	1·0	8·4
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

The readings in Column 15 are taken daily at noon.

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

*Rainfall (Column 16). The amounts entered on January 19 and 20, are derived from frost.

The mean reading of the *Barometer* for the month was 30·095in., being 0·294in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 51°·0 on January 30; the lowest in the month was 23°·0 on January 27; and the range was 28°·0.

The mean of the all the highest daily readings in the month was 38°·9, being 4°·2 lower than the average for the 65 years, 1841–1905.

The mean of all the lowest daily readings in the month was 31°·1, being 2°·6 lower than the average for the 65 years, 1841–1905.

The mean of the daily ranges was 7°·8, being 1°·6 less than the average for the 65 years, 1841–1905.

The mean for the month was 34°·8, being 3°·8 lower than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours		hours.				lbs.	lbs.	miles.		
Jan. 1	6·6	0·48	5·2	0·37	NNE : N	N	3·5	0·37	379	10 : 10 : 10, s.-cu	9, s.-cu : 7 : 9, s.-cu
2	0·0	0·00	0·0	0·00	N : NNE	NE	5·3	0·57	425	8, ho.-fr : 6 : 1, s.-cu	9,s.-cu,fr.-s,slt.-sn.-sh,w : 8 : 10, s.-cu
3	0·0	0·00	0·0	0·00	NE : NNE	NE : NNE	5·5	0·65	472	10, sl.-sh 10 : 10, s.-cu, fr.-s, n	9, s.-cu : 9 : 10
4	0·0	0·00	0·0	0·00	NNE : NE	NE : NNE	3·3	0·30	372	10 : 10 : 10, s,fr.-s,slt.-sn.-sh	10, s.-cu, oc.-th.-cl : 10
5	0·0	0·00	0·0	0·00	NE : E	E : ESE	1·5	0·09	227	10, sl : 10 : 10, slt.-sn	10, oc.-slt.-sn : 10 : 10
6	0·0	0·00	0·0	0·00	ESE : ENE : Calm	ESE : Calm	0·3	0·00	128	10 : 10 : 10, slt.-sn	10, sn : 10, oc.-sn : 10, oc.-sn
7	0·0	0·00	0·0	0·00	Calm	NNE : Calm	0·1	0·00	100	10, slt.-sn : 10, slt.-f : 10, slt.-f	10, slt.-f : 10, slt.-f : 10
8	0·0	0·00	0·0	0·00	Calm	Calm	0·0	0·00	79	10 : 10, f, glm : 10, s, f, slt.-sn	10, s, f, ho.-fr : 10, f, ho.-fr : 10, f, d, ho.-fr
9	0·4	0·03	0·0	0·00	Calm	Calm	0·0	0·00	57	10, tk.-f : 10, f, tk.-f : 10, tk.-f, f	10,f,th.-cl, so.-ha : 10, f : 6, f, ho.-fr
10	0·0	0·00	0·0	0·00	Calm : SSW	S : SE : ESE	0·3	0·02	144	10, m.-r : 10, slt.-r, f : 10, s, n, r, oc.-sl	10, n, s, r, sl: 10, r : 10, s
11	0·0	0·00	0·0	0·00	ENE : NE	NE : ENE	3·5	0·23	354	10, m.-r.-sh : 10 : 10, s,fr.-s,oc.-slt.-sn	10, s, n, slt.-sn : 10, oc.-slt.-sn : 10
12	11·5	0·87	10·8	0·81	ENE : NE	ENE : NE	3·0	0·18	290	10 : 10, s.-cu, fr.-s, oc.-th.-cl	6, s.-cu, fr.-cu : 0, h : 1, ho.-fr
13	0·1	0·01	0·0	0·00	Calm	NNW : NW	0·5	0·01	115	0, ho.-fr : 9, ho.-fr, f : 10, slt.-m.-r, slt.-f	10,s.-cu,oc.-th.-cl,slt.-f : 10, m, slt.-f : 10, m.-r.-shs, m
14	3·7	0·28	0·9	0·07	NNW	N : NNW	2·0	0·11	273	10, m : 10, m : 10, n, s.-cu, m	9, s.-cu : 0 : v.-cl, ho.-fr
15	8·0	0·49	6·8	0·42	NW : W : WSW	NW : NNW	3·0	0·23	386	10 : 10 : 10, m, sn	8, n, m : 10 : 5, s.-cu
16	..	..	..	..	NNW : N	NNW:WNW:WSW	5·4	0·19	330	6, ho.-fr : 5, ho.-fr, sn : 3, h, slt.-sn.-sq	0, h, tk.-h : 0, h, m : 0, h, m
17	2·5	0·19	0·8	0·06	WSW	WSW : Calm	0·8	0·03	257	0, h, m, ho.-fr : 2 : 10,s.-cu,alt.-cu,m,ho.-fr	10,s.-cu,alt.-cu,m,ho.fr : 10,ho.-fr,m,f : 10, f, ho.-fr
18	9·5	0·72	9·0	0·68	Calm : SSW	SW	0·6	0·04	227	8, ho.-fr : 10, fq.-slt.-sn : 9, s.-cu, slt.-r	10, s, s.-cu : 9 : 6 th.-cl, hy.-cl
19	13·0	1·00	13·0	1·00	SW : SSW	SSW : S	0·7	0·06	243	0, ho.-fr : 7, ho.-fr, m : 0, m	0, slt.-h : 0, slt.-h, 1 : 0,m,ho.-fr
20	13·0	1·00	13·0	1·00	Calm : SE	ESE : Calm	0·4	0·00	127	0, tk.-ho.-fr : 0, tk.-ho.-fr, m : 0, m	0 : 0, ho.-fr : 0,ho.-fr,m
21	0·0	0·00	0·0	0·00	Calm	Calm	0·0	0·00	112	0, tk.-ho.-fr : 1, tk.-ho.-fr, f : 9, s.-cu, s, m.-r,f	10, s.-cu, s, f: 10, r, f : 10, m.-r, f
22	0·0	0·00	0·0	0·00	Calm	Calm : NE	0·1	0·00	108	10, m.-r, f, tk.-f : 10, f : 10, s, f, glm	10, s, slt.-f : 10, s, f : 10, s, f, m.-r
23	0·6	0·05	0·2	0·02	NE	N	0·7	0·07	212	10, f, m, m.-r : 10, m : 10, n, s, slt.-r	10, n, s, slt.-m : 10, slt.-m : 10, slt.-m
24	7·5	0·57	6·9	0·53	N : NNW	N	3·2	0·18	271	9, slt.-m : 10, slt.-m : 10, s, s.-cu	10, s.-cu : 10, sh : 10, n
25	3·0	0·23	2·5	0·19	N : NNW	NNW:NW:WNW	1·5	0·11	260	5, ho.-fr, slt.-f : 9, ho.-fr, slt.-f : 10,s,n,oc.-slt.-sn	10,s,n,sn,slt.-sn : 10, oc.th.-cl: 10, s.-cu, n
26	10·7	0·86	10·7	0·86	NW : N : NNE	NNE	3·0	0·18	300	8, ho.-fr : 9 : 4, cu, alt.-cu	4, cu, h : 0, h : 0,m,ho.-fr
27	3·4	0·27	2·2	0·18	Calm : SW	WSW : SW	0·3	0·00	164	0, ho.-fr, m : 8, m, sn.-sh : 6,alt.-s,h,f,ho.-fr	p.-cl,s.-cu,f,ho.-fr : 1, h, f, ho.-fr : 7, f, ho.-fr
28	0·0	0·00	0·0	0·00	SW : Calm	S : SSE	0·6	0·03	191	10, f, ho.-fr : 10, f, ho.-fr : 10, s.-cu, slt.-f	10,ci.-s,p.-so.-ha : 10, th.-cl : 10, fq.-r,-m.-r
29	0·0	0·00	0·0	0·00	S	S	3·1	0·29	355	10, fq.-r,-m.-r : 10, fq.-m..r,-r : 10, s, n, r, slt.-r	10, n, r : 10, fq.-m.-r, r : 10, m.-r, oc.-r
30	0·1	0·01	0·0	0·00	S	S : SSE : SE	1·0	0·06	220	10 : 10, s.-cu, alt.-cu	8,s.-cu,alt.-cu,ci.-cu: 8 : 9, fr.-cu, d
31	0·0	0·00	0·0	0·00	SSE : ESE	SE	1·7	0·05	176	10 : 10, slt.-sh : 10, s, n, r	9, s.-cu, alt.-cu : 10, d : 10, r, slt.-r
Means	3·1	0·24	2·7	0·21	..	..	..	0·13	237		
Number of Column for Reference.	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 33°·4, being 3°·8 lower than
The mean *Temperature of the Dew Point* for the month was 30°·8, being 4°·3 lower than
The mean *Degree of Humidity* for the month was 85·1, being 1·7 less than
The mean *Elastic Force of Vapour* for the month was 0·170in., being 0·035in. less than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 8·1.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·118. The maximum daily amount of *Sunshine* was 7·8 hours on January 20.

The highest reading of the *Solar Radiation Thermometer* was 79°·0 on January 20 ; and the lowest reading of the *Terrestrial Radiation Thermometer* was 12°·1 on January 27.

The *Proportions of Wind* referred to the cardinal points were N. 8, E. 6, S. 5, W. 4. Eight days were calm.

The *Greatest Pressure of the Wind* in the month was 5·5 lbs. on the square foot on January 3. The mean daily *Horizontal Movement of the Air* for the month was 237 miles ; the greatest daily value was 472 miles on January 3, and the least daily value was 57 miles on January 9.

Rain (0·005in. or over) fell on 13 days in the month, amounting to 0·734in., as measured by Gauge No. 6 partly sunk below the ground ; being 1·147in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY 1929.	Barometer.	Temperature. Of the Air.					Temperature. Of Evaporation.	Temperature. Of the Dew Point.	Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	Temperature. Of Radiation.			Rain collected in Gauge 9·0N whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean	Greatest	Least		Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 4 ft. below the Surface of the Soil.			
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
Feb. 1	29·617	52·7	43·6	9·1	48·1	+ 8·5	46·9	45·5	2·6	5·3	1·4	91	64·3	42·4	42·0	0·137	0·0	9·1
2	29·710	46·5	38·9	7·6	42·9	+ 3·4	42·4	41·7	1·2	2·7	1·1	96	48·0	36·7	42·0	0·130	0·0	9·2
3	29·818	39·4	26·2	13·2	34·0	− 5·5	30·8	24·2	9·8	18·8	3·3	68	85·9	18·6	42·1	0·007	8·4	9·2
4	30·030	35·6	22·9	12·7	28·1	−11·4	26·9	23·4	4·7	6·0	0·0	83	36·1	13·1	42·0	0·003*	1·0	9·3
5	30·104	42·6	30·8	11·8	37·4	− 2·2	35·7	32·5	4·5	7·3	1·6	84	45·8	23·4	42·2	0·000	0·0	9·3
6	30·087	42·5	35·1	7·4	38·4	− 1·2	37·3	35·5	2·9	7·3	1·9	90	49·0	32·0	42·1	0·000	0·0	9·4
7	30·185	36·8	30·0	6·8	33·3	− 6·2	31·7	28·9	4·4	6·7	1·9	84	43·2	21·8	42·0	0·000	0·0	9·4
8	30·088	42·7	28·1	14·6	35·2	− 4·1	33·5	30·6	4·6	9·8	0·9	83	77·0	16·3	42·0	0·000	3·2	9·5
9	29·893	43·8	27·9	15·9	36·7	− 2·4	35·8	34·3	2·4	5·7	0·0	91	53·5	16·1	42·0	0·081	0·0	9·6
10	29·679	41·2	32·2	9·0	36·9	− 2·0	36·1	34·8	2·1	8·0	1·1	92	41·9	30·2	41·9	0·037	0·0	9·6
11	29·795	32·2	19·2	13·0	25·5	−13·3	23·3	16·5	9·0	20·6	4·8	69	54·8	16·5	41·7	0·000	1·6	9·7
12	29·890	27·3	18·1	9·2	22·0	−16·8	20·4	14·6	7·4	13·0	4·0	72	73·0	14·0	41·6	0·000	7·6	9·8
13	29·888	26·2	18·5	7·7	21·6	−17·4	20·1	14·2	7·4	14·8	4·2	73	70·5	6·6	41·4	0·000	4·9	9·8
14	29·835	27·1	15·5	11·6	21·5	−17·8	19·9	13·6	7·9	17·6	3·7	71	63·1	6·3	41·1	0·000	...	...
15	29·535	27·9	12·0	15·9	20·2	−19·2	19·0	13·6	6·6	8·0	3·4	76	50·1	4·4	41·0	0·008	0·6	9·9
16	29·661	28·9	24·7	4·2	26·7	−12·8	24·9	19·5	7·2	12·4	4·2	76	36·0	26·0	40·9	0·000	0·0	10·0
17	29·962	29·3	19·2	10·1	26·1	−13·5	24·5	19·7	6·4	9·5	2·2	77	35·0	9·1	40·6	0·000	0·0	10·0
18	30·125	37·0	16·0	21·0	25·9	−13·6	24·2	19·1	6·8	12·6	2·8	75	79·1	6·0	40·3	0·000	3·0	10·1
19	30·216	33·2	27·5	5·7	29·4	−10·1	28·0	24·8	4·6	6·4	2·8	82	61·5	21·5	40·1	0·000	0·4	10·2
20	30·312	41·8	24·0	17·8	32·1	− 7·4	30·3	26·9	5·2	11·5	1·6	81	65·9	14·2	40·0	0·000	2·9	10·3
21	30·264	48·9	23·7	25·2	34·7	− 4·9	31·7	25·7	9·0	20·5	0·0	71	90·4	11·0	40·0	0·000	5·3	10·3
22	29·906	53·2	24·0	29·2	37·0	− 2·7	33·1	26·2	10·8	22·5	1·8	62	90·8	11·2	39·9	0·000	4·2	10·4
23	29·549	46·8	33·9	12·9	41·3	+ 1·5	39·7	37·4	3·9	9·9	0·7	86	62·2	25·0	39·7	0·028	0·0	10·4
24	29·484	44·8	35·4	9·4	39·5	− 0·5	38·9	37·9	1·6	6·3	0·6	94	64·7	33·1	39·5	0·010*	0·0	10·5
25	29·630	35·4	29·5	5·9	31·6	− 8·5	30·9	29·6	2·0	3·4	1·4	92	34·5	28·7	39·3	0·000	0·0	10·6
26	29·755	30·3	29·0	1·3	29·6	−10·6	28·9	27·6	2·0	4·1	1·5	91	35·3	28·1	39·2	0·066	0·0	10·6
27	29·958	29·2	25·3	3·9	26·8	−13·5	24·9	19·2	7·6	11·4	3·8	75	79·7	23·4	39·2	0·000	3·4	10·7
28	30·508	36·5	26·0	10·5	30·3	−10·0	27·6	21·5	8·8	15·1	4·0	68	77·0	18·8	39·1	0·000	2·6	10·8
Means	29·910	37·8	26·3	11·5	31·9	− 7·6	30·3	26·4	5·5	10·6	2·2	80·5	59·6	19·8	40·9	Sum 0·507	1·8	9·9
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

The values given in Columns 2, 3, 4, 13, and 14 are derived from eye-readings of self-registering thermometers.
*Rainfall (Column 16). The amount entered on February 4 is derived from frost, and that on February 24 from wet fog.
The mean reading of the *Barometer* for the month was 29·910in., being 0·101in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 53°·2 on February 22; the lowest in the month was 12°·0 on February 15; and the range was 41°·2.

The mean of all the highest daily readings in the month was 37°·8, being 7°·4 lower, than the average for the 65 years, 1841–1905.

The mean of all the lowest daily readings in the month was 26°·3, being 7°·9 lower than the average for the 65 years, 1841–1905.

The mean of the daily ranges was 11°·5, being 0°·5 greater than the average for the 65 years, 1841–1905.

The mean for the month was 31°·9, being 7°·6 lower than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.		hours.				lbs.	lbs.	miles		
Feb. 1	1·1	0·09	0·0	0·00	SSE : S	SSW : S	4·0	0·37	383	10, r, m.-r : 10, m.-r : 10, n, alt.-s,m.-r	10, s.-cu, n : 10 : 8
2	0·0	0·00	0·0	0·00	S : SE	SE	1·6	0·15	241	10 : 10 : 10, s, n, r	10, r, m.-r, hy.-r : 10,r,m.-r,oc.-m.-r: 10
3	12·5	1·00	12·5	1·00	SE	ESE : Calm	1·9	0·25	245	10, sh : 9 : 2 ci, ci.-s	0, slt.-h : 0, slt.-h : 0, slt.-h, ho.-fr
4	4·5	0·36	1·1	0·08	Calm	Calm : SW	0·0	0·00	104	0, ho.-fr : ho, f, o.-fr, tk.-f	0, f, tk.-f, ho.-fr: 0, f, tk.-f, ho.-fr: 3, f, ho.-fr
5	0·0	0·00	0·0	0·00	WSW	WSW : Calm	0·1	0·00	163	10, ho.-fr : 10, f : 10, s.-cu, f	10, s.-cu.f : 10, f : 10, f
6	1·1	0·09	1·0	0·08	Calm : ENE	E	0·6	0·03	148	10 : 10 : 9, s.-cu, f	10, s.-cu, slt.-f : 10, slt.-f : 10, slt.-d
7	2·8	0·22	2·5	0·20	E : Calm	Calm	0·5	0·01	131	9, ho.-fr : 9 : 10, s.-cu	10, s.-cu : 1 : 7, ho.-fr
8	12·3	0·99	12·3	0·99	Calm : S : SSW	SSW : Calm	0·7	0·05	178	10 : 10 : 9, s.-cu	2, cu, h : 0, slt.-f, f, ho.-fr
9	0·0	0·00	0·0	0·00	S : Calm	S : SSW : SW	0·6	0·03	195	0, ho.-fr : 9, s.-cu, s, ho.-fr, slt.-f	10, s, s.-cu, slt.-r, m: 10, r, m : 10, r, m
10	0·0	0·00	0·0	0·0	WSW : NW	NNW : NNE	1·8	0·16	283	10, m : 10, m : 10, s, n, r, m, sl	10, m : 10, oc.-m.-r, m : 10
11	7·2	0·60	5·5	0·46	NE : ENE : E	ESE : E	6·5	0·61	398	10 : 10 : 6,s.-cu,ci,slt.-sn.-sh	10,ci,alt.-s,so.-ha : 9 : 9
12	11·8	0·99	11·3	0·94	E : ENE	ENE : NE	5·1	0·64	408	v.-cl : v.-cl, oc.-sn: v.-cl,cu,fr.-cu,w	v.-cl, fr.-cu, slt.-h: v.-cl, ho.-fr : v.-cl, ho.-fr
13	9·6	0·80	8·5	0·70	ENE : E	E : Calm : NNW	2·2	0·09	..	v.-cl, ho.-fr : v.-cl, ho.-fr : 9, n, oc.-slt.-sn	9, ci.-s, fr.-cu, th.-cl : 1 : 0, m, ho.-fr
14	12·0	1·00	9·3	0·77	NNW : NNE : NE	NE : Calm	1·0	0·02	..	p.-cl, ho.-fr : 9,ho.-fr,oc.-slt.-sn: p.-cl, oc.-sn, h	4, cu, fr.-cu : 1, h : 0, h, ho.- fr, m
15	0·0	0·00	0·0	0·00	Calm	ENE	0·2	0·00	..	0, ho.-fr : 0, f, ho.-fr : 9,alt.-cu,alt.-s,f,ho.-fr	9,s,n,slt.-f,ho.-fr: 10, sn : 10, slt.-sn
16	0·0	0·00	0·0	0·00	E	E : ENE	0·1	0·00	167	10, slt.-sn, ho.-fr : 10, ho.-fr : 10, s, n, slt.-sn	10 : 10
17	11·2	0·95	10·5	0·90	NE : ENE : Calm	Calm	0·2	0·00	..	10, slt.-ho.-fr : 10, f :1,ci.-cu,h,tk.-f,glm	0, tk.-h, ho.-fr, f: 0, h, f, ho.-fr : 0, f, ho.-fr
18	1·7	0·14	1·7	0·14	Calm	Calm : E : ESE	0·0	0·00	..	0, ho.-fr : 6, f, ho.-fr : 9,alt.-cu,s.-cu,f,slt-.f	1, cu, h : 1, h, ho.-fr: 10, slt.-f, ho.-fr
19	2·4	0·21	2·2	0·19	ESE : E	E : ESE	1·3	0·10	224	10 : 10, s, fr.-s, n	10, s.-cu : 10 : 10, th.-cl, s.-cu, ho.-fr
20	11·7	1·00	10·8	0·92	ESE : Calm	E : Calm	0·3	0·01	141	10, ho.-fr : 6, ho.-fr : 5, ci.-s, h, slt.f	9,th.-cl,ci,ci.-s,slt.-f,so.-ha: 10 : 1, ho.-fr, m
21	11·7	1·00	11·7	1·00	Calm : SE	Calm : SE	0·3	0·01	128	4, ho.-fr, m: 7,th.-cl,m,ho.-fr : th.-cl, ci, so.-ha	th.-cl, ci, so.-ha : p.-cl, th.-cl : th.-cl, ho.-fr
22	1·7	0·15	1·5	0·12	Calm	SE : Calm	0·2	0·00	101	th.-cl, ho.-fr, m : th.-cl, m, f : 6,ci,f,slt.-f,so.-ha	10, ci, ci.-s, so.-ha, m : 10, lu.-ha, m
23	0·0	0·00	0·0	0·00	SSW : SW	WSW : Calm	0·3	0·00	171	8, m : 10, m : 10, m.-r, slt.-f	10,s.-cu,oc.-th.-cl,r,m,f: 10,f,oc.-m.-r: 10, f, tk.-f
24	0·0	0·00	0·0	0·00	Calm	Calm : NE	0·5	0·01	137	10, tk.-f : 10, tk.-f : 10, s, tk.-f, f	10,s.-cu,alt.-cu,f : 10, f, slt.-f : 10
25	0·0	0·00	0·0	0·00	NE : ENE	ENE	2·6	0·22	383	10, oc.-m.-r : 10, n, oc.-slt.-m.-r	10, n, oc.-slt.-m.-r : 10, oc.-slt.-m.-r
26	0·0	0·00	0·0	0·00	ENE	ENE	8·0	0·52	426	10 : 10, sn, oc.-slt.-sn : 10, n, sn, slt.-sn	10, n, slt.-sn : 10, fq.-slt.-sn, w
27	0·0	0·00	0·0	0·00	ENE	ENE : NE	14·1	2·63	632	10, w : 10, w, st.-w : 9, s.-cu, st.-w	v.-cl, s.-cu, st.-w,w: 10
28	8·8	0·78	8·7	0·77	NE	NE : NNE	1·1	0·08	261	10 : 9, s.-cu	9, s.-cu, fr.-s : 0, ho.-fr
Means	4·4	0·37	4·0	0·33	..	..	..	0·21	246		
Number of Column for Reference.	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 30°·3, being 7°·4 lower than
The mean *Temperature of the Dew Point* for the month was 26°·4, being 8°·6 lower than
The mean *Degree of Humidity* for the month was 80·5, being 3·1 less than
The mean *Elastic Force of Vapour* for the month was 0·139in., being 0·065in. less than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 7·1.
The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·183. The maximum daily amount of *Sunshine* was 8·4 hours on February 3.

The highest reading of the *Solar Radiation Thermometer* was 90·°8 on February 22; and the lowest reading of the *Terrestrial Radiation Thermometer* was 4°·4 on February 15.

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 10, S, 5, W. 2. Seven days were calm.

The *Greatest Pressure of the Wind* in the month was 14·1 lbs. on the square foot on February 27. The mean daily *Horizontal Movement of the Air* for the month was 246 miles; the greatest daily value was 632 miles on February 27, and the least daily value was 101 miles on February 22.

Rain (0·005in. or over) fell on 9 days in the month, amounting to 0·507in., as measured by gauge No. 6 partly sunk below the ground; being 0·973in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY 1929.	BAROMETER.	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.			
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean	Greatest	Least		Highest in Sun's Rays.	Lowest on the Grass.				
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
Mar. 1	30·585	40·7	25·1	15·6	32·2	− 8·2	29·6	24·0	8·2	15·6	2·3	72	91·1	12·5	39·1	0·000	7·7	10·8
2	30·415	41·0	23·1	17·9	30·8	− 9·6	27·9	21·2	9·6	16·2	3·0	67	90·6	10·1	39·1	0·000	8·9	10·9
3	30·181	42·7	21·2	21·5	31·7	− 8·8	29·5	24·9	6·8	11·1	1·4	76	66·8	10·4	39·0	0·000	2·5	11·0
4	30·001	40·4	25·9	14·5	36·8	− 3·9	34·2	29·6	7·2	10·2	1·2	74	65·0	12·6	39·0	0·000	1·2	11·0
5	29·928	44·5	20·6	23·9	32·4	− 8·5	30·8	28·0	4·4	13·2	0·0	83	74·5	9·4	39·0	0·000	1·9	11·1
6	30·053	51·6	36·7	14·9	42·6	+ 1·6	39·0	33·5	9·1	14·1	3·3	70	91·5	26·0	39·0	0·000	2·5	11·2
7	30·258	50·2	30·5	19·7	39·7	− 1·3	37·1	32·8	6·9	14·2	2·3	77	97·9	19·3	39·0	0·000	4·2	11·2
8	30·156	61·0	26·0	35·0	40·9	− 0·2	37·2	31·4	9·5	24·7	1·0	68	113·0	15·6	39·0	0·001*	9·8	11·3
9	30·104	67·7	31·4	36·3	45·8	+ 4·8	40·7	32·9	12·9	33·3	1·3	61	120·9	19·6	39·1	0·001*	10·3	11·3
10	30·054	65·0	31·0	34·0	47·1	+ 6·2	40·9	31·6	15·5	36·0	2·2	54	102·1	17·9	39·3	0·000	9·4	11·4
11	30·060	65·1	30·2	34·9	45·7	+ 4·7	39·8	30·4	15·3	33·5	3·0	55	106·9	18·6	39·1	0·000	7·6	11·5
12	30·232	48·5	35·8	12·7	42·1	+ 1·0	39·4	35·2	6·9	13·5	1·9	77	95·8	21·1	39·4	0·000	7·8	11·6
13	30·329	43·3	35·8	7·5	40·4	− 0·9	39·1	37·2	3·2	5·8	1·6	88	50·0	32·7	39·3	0·000	0·0	11·6
14	30·243	38·2	32·5	5·7	34·8	− 6·7	34·0	32·6	2·2	4·7	1·1	92	51·0	32·2	39·4	0·000	0·0	11·7
15	30·259	38·3	31·4	6·9	35·1	− 6·6	34·5	33·3	1·8	2·9	0·3	94	45·4	31·4	39·5	0·000	0·0	11·8
16	30·208	43·4	29·1	14·3	37·3	− 4·6	35·4	32·2	5·1	10·9	1·2	82	85·8	15·2	39·6	0·000	0·4	11·8
17	30·113	56·2	30·2	26·0	38·6	− 3·4	36·1	31·9	6·7	17·4	0·4	76	96·4	20·3	39·9	0·000	6·0	11·9
18	30·082	62·3	28·0	34·3	42·5	+ 0·5	38·1	31·1	11·4	31·3	0·0	63	119·0	16·0	40·0	0·000	9·7	11·9
19	30·063	43·4	30·6	12·8	35·3	− 6·6	34·5	33·0	2·3	7·0	0·3	92	89·6	24·5	39·9	0·000	3·2	12·0
20	29·987	69·0	30·0	39·0	44·9	+ 3·0	40·8	34·7	10·2	28·9	0·0	67	113·9	25·1	40·0	0·000	4·7	12·1
21	29·909	63·0	41·6	21·4	50·9	+ 9·0	48·4	45·7	5·2	11·2	2·3	82	100·3	25·5	40·1	0·000	0·4	12·1
22	29·898	62·0	46·1	15·9	53·8	+11·8	50·2	46·5	7·3	16·1	1·6	76	103·1	37·2	40·2	0·024	1·7	12·2
23	30·043	58·3	38·0	20·3	46·3	+ 4·1	42·8	38·1	8·2	20·3	1·6	73	106·8	22·8	40·5	0·000	4·2	12·3
24	30·147	62·0	34·0	28·0	47·3	+ 4·9	43·3	38·0	9·3	21·9	1·3	70	107·0	21·0	40·9	0·000	6·6	12·3
25	30·127	64·2	44·0	20·2	51·2	+ 8·5	48·5	45·5	5·7	18·2	2·7	81	114·0	34·2	41·0	0·012	2·5	12·4
26	30·238	62·8	41·2	21·6	52·0	+ 9·0	48·0	43·5	8·5	21·9	0·9	73	106·1	27·1	41·2	0·000	5·0	12·5
27	30·308	66·7	35·6	31·1	49·9	+ 6·6	45·1	39·1	10·8	24·5	0·0	66	119·5	24·2	41·5	0·000	7·7	12·5
28	30·350	68·7	34·2	34·5	50·3	+ 6·6	44·7	37·1	13·2	31·1	1·1	61	124·6	20·9	41·8	0·000	11·0	12·6
29	30·342	68·5	33·4	35·1	50·8	+ 6·7	45·4	38·3	12·5	28·4	1·1	63	126·1	21·0	42·0	0·000	10·8	12·7
30	30·214	70·3	37·0	33·3	52·2	+ 7·7	45·8	37·5	14·7	35·4	1·6	57	115·7	22·9	42·1	0·000	10·5	12·7
31	30·018	58·9	42·5	16·4	49·8	+ 4·9	43·5	34·7	15·1	32·6	5·2	56	112·3	26·7	42·0	0·000	6·9	12·8
Means	30·158	55·4	32·7	22·7	42·9	+ 1·0	39·5	34·4	8·6	19·6	1·5	72·5	96·9	21·7	40·0	Sum. 0·038	5·3	11·8
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

*Rainfall (Column 16). The amounts entered on March 8 and 9 are derived from frost.

The mean reading of the *Barometer* for the month was 30·158in., being 0·405in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 70°·3 on March 30; the lowest in the month was 20°·6 on March 5; and the range was 49°·7.
The mean of all the highest daily readings in the month was 55°·4, being 5°·6 higher than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 32°·7, being 2°·4 lower than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 22°·7, being 8°·0 greater than the average for the 65 years, 1841–1905.
The mean for the month was 42°·9, being 1°·0 higher than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.		hours.				lbs.	lbs.	miles		
Mar. 1	11·2	1·00	11·2	1·00	Calm : ENE	E : ENE	2·0	0·12	231	v.-cl,ho.-fr,slt.-sn : 1, h, f, ho.-fr : 0, h, f	1, fr.-cu, s.-cu : 0, ho.-fr
2	10·3	0·95	9·7	0·90	NE : ENE	E: ENE	1·2	0·05	205	0, ho.-fr : 0, ho.-fr, m : 1, ci	7, ci, ci.-cu, p.-so.-ha : 0, ho.-fr
3	0·0	0·00	0·0	0·00	Calm	Calm	0·2	0·00	55	p.-cl,th.-cl,ho.-fr : th.-cl,lu.-ha,slt.-f,ho.-fr : 9,alt.-cu,tk.-h,f,tk.-f	tk.-h, f : 10, tk.-f, f
4	10·7	1·00	10·7	1·00	NNW : NNE	NE : ENE : Calm	3·5	0·13	265	10 : 10, m.-r : 10, n, s.-cu	10, s.-cu : 1 : 0, ho.-fr
5	0·0	0·00	0·0	0·00	Calm	NNW : NW	1·0	0·03	139	0, ho.-fr : 0,f,ho.-fr,tk.-f : 0,tk.-f,h,ho.-fr,f	3, f, h : 10,m.-r.-shs,slt.-f : 10, slt.-m
6	1·2	0·12	0·4	0·03	NNW	NNW : Calm	1·0	0·04	170	10, m.-r : 10, f : 8, cu, s.-cu, n, h	10, s.-cu, h : 9, f, slt.-f
7	10·7	1·00	10·7	1·00	Calm : ENE	Calm : ESE	0·3	0·02	118	10, slt.-f : 10, s.-cu, slt.-f	1, slt.-h : 0, ho.-fr
8	10·7	1·00	10·7	1·00	Calm : NE	Calm : ENE	0·7	0·03	124	0, ho.-fr : 0, ho.-fr, f	0 : 1, th.-cl, slt.-f : 0,slt.-f,m,ho.-fr
9	10·3	1·00	10·3	1·00	Calm	E : ENE : Calm	0·6	0·01	122	0, m, ho.-fr : 0, f, m, h	1, ci, ci.-s : 0, m, ho.-fr
10	7·0	0·68	3·3	0·32	Calm	NNE : Calm	0·1	0·00	69	0, m, ho.-fr : 1, ci, f, slt.-f, ho.-fr, h	0, h : 0, h, slt.-f, ho.-fr
11	10·3	1·00	4·3	0·42	WSW : Calm	N : Calm : NNW	0·5	0·01	140	0, ho.-fr, slt.-f : 0, h, f	1, ci.-cu, h : 0, d, ho.-fr, f, m
12	0·0	0·00	0·0	0·00	NNW : NE : ENE	E : ENE : NE	1·4	0·06	218	0, m, ho.-fr : 0, slt.-f, m, h	0, m, slt.-h: 10 : 10, slt.-m.-r
13	0·0	0·00	0·0	0·00	ENE : NE	NE : ENE	1·0	0·09	265	10, m.-r : 10, s.-cu, n, slt.-m.-r	10, n : 10
14	0·0	0·00	0·0	0·00	ENE : NE	ENE : NE	1·7	0·09	253	10 : 10, s, n	10, s, n : 10
15	0·0	0·00	0·0	0·00	NE : ENE	ENE	2·0	0·18	315	10 : 10, f, fq.-m.-r	10, s, n, oc.-m.-r : 10, oc.-m.-r
16	4·3	0·44	4·3	0·44	ENE : E	E : ENE	1·6	0·11	231	10 : 10, s, n	10, s, s.-cu : 0, ho.-fr
17	9·7	1·00	9·7	1·00	Calm	NE : E : Calm	0·7	0·03	128	10, m, f : 10, f : tk.-f, f	0, f, m : 0, m, ho.-fr
18	3·9	0·40	3·9	0·40	Calm	E : ENE	0·8	0·03	156	0, m, f, ho.-fr : 0, f, h	0 : 1 : 0, d, ho.-fr
19	0·0	0·00	0·0	0·00	ENE	E : ENE	0·3	0·01	174	10, tk.-f : 10, tk.-f, slt.-f, m	p.-cl, m, h : 10, tk.-f, d
20	4·6	0·47	4·5	0·46	Calm	SSW	0·7	0·02	128	10, tk.-f : 10, tk.-f : 1, th.-cl, ci, f	9, alt.-s, slt.-f : 10, p.-lu.-ha : 0, m, ho.-fr
21	1·6	0·16	0·0	0·00	SSW	SSW	1·8	0·20	288	10 : 10, s, m	10,alt.-s,alt.-cu : 10,fq.-slt.-r.-m.-r : 10, th.-cl, lu.-ha
22	8·0	0·82	7·2	0·74	SSW : SW	W : WSW	1·0	0·08	230	8 : 10, r : 9, s.-cu	9, s.-cu, ci.-cu : 10, th.-cl : th.-cl, lu.-ha
23	9·1	0·98	9·0	0·97	WSW : SW	W : WNW : SW	1·0	0·06	230	1, d : 8, slt.-f	v.-cl, cu, fr.-cu : 0, tk.-h, ho.-fr
24	2·0	0·22	1·5	0·14	SW	SW : SSW	2·0	0·10	228	1, ho.-fr : 1, ho.-fr : 1, ci.-s, ci.-cu, h	9, so.-ha : v.-cl, th.-cl, h
25	0·0	0·00	0·0	0·00	SSW : SW	SW : WSW	2·0	0·16	290	10 : 10, m, sh	8, cu, s.-cu: 10, m.-r, slt.-r : 10
26	8·8	0·95	6·4	0·69	Calm : N	NNE : Calm	0·6	0·01	118	10, m : 10, m, slt.-f : 9 alt.-cu, h	1, ci.-cu, h, so.-ha : 0, h, slt.-f, d
27	9·3	1·00	9·3	1·00	Calm	ENE : Calm	0·6	0·02	87	0,slt.-f,tk.-f,ho.-fr: 0, tk.-f, ho.-fr : 0, slt.-f, h	0, slt.-h : 0, slt.-h : 0, m
28	9·3	1·00	9·3	1·00	Calm : NE	ENE : ESE : Calm	1·9	0·09	163	0, ho.-fr : 1, f : 1, ci	0, slt.-h : 0
29	9·3	1·00	9·3	1·00	Calm : ENE	E : Calm	0·5	0·01	97	0, ho.-fr : 0, m, f, ho.-fr : 1, ci	3, ci, ci.-cu: 0 : 0, ho.-fr
30	8·7	0·99	8·6	0·98	Calm	NNW : Calm : SW	1·0	0·02	109	0, ho.-fr : 0, m, slt.-h	0, h : 0, slt.-h, slt.-m, slt.-d
31	3·0	0·35	1·8	0·21	SW : NNW	NNW : NW	3·3	0·35	325	1 : 9, th.-cl, m: 7, ci, cu, so.-ha	2 : th.-cl
Means	5·6	0·57	5·0	0·51	..	..	..	0·07	183		
Number of Column for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 39°·5, being 0°·1 higher than
The mean *Temperature of the Dew Point* for the month was 34°·4, being 1°·2 lower than
The mean *Degree of Humidity* for the month was 72·5, being 5·6 less than
The mean *Elastic Force of Vapour* for the month was 0·198in., being 0·011in. less than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 4·5.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·451. The maximum daily amount of *Sunshine* was 11·0 hours on March 28.

The highest reading of the *Solar Radiation Thermometer* was 126°·1 on March 29; and the lowest reading of the *Terrestrial Radiation Thermometer* was 9°·4 on March 5.

The *Proportions of Wind* referred to the cardinal points were N. 6, E. 9, S. 3, W. 3. Ten days were calm.

The *Greatest Pressure of the Wind* in the month was 3·5 lbs. on the square foot on March 4. The mean daily *Horizontal Movement of the Air* for the month was 183 miles; the greatest daily value was 325 miles on March 31, and the least daily value was 55 miles on March 3.

Rain (0·005in. or over) fell on 2 days in the month, amounting to 0·038in., as measured by gauge No. 6 partly sunk below the ground; being 1·482in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY 1929.	Barometer.	Temperature.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	Temperature			Rain collected in Gauge No. 6 whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.			
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean	Greatest	Least		Highest in Sun's Rays.	Lowest on the Grass.				
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
April 1	29·707	55·9	40·8	15·1	47·0	+ 1·7	40·8	31·5	15·5	33·9	8·3	54	107·0	31·9	42·1	0·033	6·4	12·9
2	29·785	52·6	37·0	15·6	42·6	− 3·1	38·1	30·9	11·7	27·0	5·1	63	100·7	28·8	42·2	0·002	4·6	12·9
3	29·862	50·2	37·0	13·2	41·9	− 4·1	37·2	29·4	12·5	22·3	4·2	60	99·2	28·1	42·4	0·000	4·6	13·0
4	29·782	50·7	36·2	14·5	42·0	− 4·2	38·8	33·9	8·1	20·9	2·1	73	78·1	27·7	42·5	0·129	0·0	13·1
5	29·677	50·0	32·7	17·3	41·7	− 4·6	39·4	35·9	5·8	12·4	0·8	80	84·4	23·0	42·7	0·068	2·5	13·1
6	30·108	54·8	25·4	29·4	39·5	− 6·8	33·9	23·5	16·0	29·6	1·2	50	111·3	12·2	42·7	0·000	10·7	13·2
7	30·091	61·7	33·0	28·7	46·0	− 0·3	40·0	30·5	15·5	24·0	6·2	54	110·1	25·0	42·6	0·000	10·1	13·3
8	29·969	60·3	35·9	24·4	48·6	+ 2·5	43·6	36·8	11·8	20·3	4·5	64	94·1	24·0	42·6	0·000	0·8	13·3
9	29·854	56·7	38·3	18·4	47·0	+ 1·0	43·7	39·5	7·5	17·7	3·9	75	92·1	24·9	42·7	0·000	1·8	13·4
10	29·850	51·7	38·4	13·3	42·2	− 3·7	39·3	34·9	7·3	18·8	3·1	75	110·1	25·0	42·8	0·018	5·6	13·5
11	29·904	45·9	34·2	11·7	38·6	− 7·2	36·7	33·8	4·8	13·6	0·9	82	91·0	31·5	42·9	0·111	2·2	13·5
12	29·868	38·0	33·6	4·4	36·0	− 9·9	35·2	33·8	2·2	2·4	0·0	92	41·3	32·1	42·8	0·190	0·0	13·6
13	29·761	45·2	36·5	8·7	40·8	− 5·3	40·0	38·8	2·0	2·7	0·0	93	72·3	28·1	42·9	0·028	0·2	13·6
14	29·760	52·3	35·7	16·6	41·9	− 4·5	40·0	37·2	4·7	16·4	0·0	83	90·4	27·1	42·9	0·000	1·9	13·7
15	29·629	54·0	37·9	16·1	45·4	− 1·4	41·7	36·3	9·1	16·1	0·8	71	116·6	25·6	42·9	0·000	10·0	13·8
16	29·899	54·8	36·7	18·1	44·0	− 3·2	41·7	38·5	5·5	14·0	0·0	81	103·0	26·2	42·9	0·000	1·1	13·9
17	30·153	66·8	29·7	37·1	49·3	+ 1·7	43·9	36·5	12·8	27·5	0·0	62	123·8	20·9	43·0	0·000	8·3	13·9
18	30·120	69·4	47·8	21·6	56·6	+ 8·6	51·7	46·7	9·9	17·6	3·6	70	124·9	35·6	43·1	0·000	4·8	14·0
19	29·848	74·1	40·9	33·2	58·5	+10·2	49·5	38·8	19·7	37·9	1·3	49	134·7	27·0	43·3	0·000	12·6	14·0
20	29·941	52·3	36·2	16·1	45·7	− 2·8	40·1	31·4	14·3	27·0	6·5	57	101·8	26·1	43·3	0·000	2·7	14·1
21	30·008	56·0	31·0	25·0	42·0	− 6·7	36·5	27·0	15·0	33·0	4·0	54	122·1	17·0	43·8	0·000	11·6	14·1
22	29·907	52·7	31·6	21·1	41·5	− 7·2	35·8	25·9	15·6	26·1	5·6	52	117·7	21·0	43·9	0·000	10·7	14·2
23	29·786	49·3	37·4	11·9	43·5	− 5·1	39·0	31·8	11·7	17·7	4·5	64	77·7	25·5	43·9	0·000	0·0	14·3
24	29·801	59·6	32·6	27·0	43·5	− 5·1	39·0	31·8	11·7	27·3	2·4	64	116·9	22·8	44·0	0·003	6·8	14·4
25	29·858	53·1	35·0	18·1	42·8	− 5·8	37·4	28·5	14·3	24·2	4·3	56	116·1	24·4	44·0	0·000	3·2	14·4
26	29·661	53·8	36·8	17·0	43·9	− 4·7	39·5	32·5	11·4	15·9	5·7	65	105·1	23·4	44·0	0·000	1·9	14·5
27	29·456	54·7	39·2	15·5	45·9	− 2·8	42·5	37·8	8·1	15·8	2·1	74	102·6	31·6	44·0	0·032	2·7	14·5
28	29·397	60·6	40·8	19·8	48·9	+ 0·1	45·6	41·5	7·4	19·1	1·6	75	128·2	36·1	44·0	0·042	2·0	14·6
29	29·275	52·0	39·6	12·4	45·0	− 4·0	42·9	40·1	4·9	10·0	1·3	83	78·2	39·0	44·0	0·423	0·0	14·6
30	29·472	50·3	36·3	14·0	42·9	− 6·2	39·5	34·5	8·4	17·3	2·1	71	93·6	27·6	44·0	0·080	1·5	14·7
Means	29·806	54·6	36·1	18·5	44·5	− 2·8	40·4	34·3	10·2	20·3	2·9	68·2	101·5	26·6	43·2	Sum 1·159	4·4	13·8
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

The values given in Columns 2, 3, 4, 13, and 14 are derived from eye-readings of self-registering thermometers.
The mean reading of the *Barometer* for the month was 29·806in., being 0·051in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 74°·1 on April 19; the lowest in the month was 25°·4 on April 6; and the range was 48°·7.

The mean of all the highest daily readings in the month was 54°·6, being 2°·6 lower than the average for the 65 years, 1841–1905.

The mean of all the lowest daily readings in the month was 36°·1, being 2°·9 lower than the average for the 65 years, 1841–1905.

The mean of the daily ranges was 18°·5, being 0°·3 greater than the average for the 65 years, 1841–1905.

The mean for the month was 44°·5, being 2°·8 lower than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest	Pressure on the Square Foot. Mean of 24 Hourly Measures	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.		hours.				lbs.	lbs.	miles.		
April 1	2·6	0·30	2·0	0·23	WSW : SW	SW : NW : NNW	10·1	1·28	511	9 : 7 : 10, n, alt.-cu, shs ,w	10, n, w, r, st.-w : 1, st.-w, w : 9
2	3·7	0·43	3·4	0·39	NNW	NW : NNW	4·3	0·24	308	9 : 9, s.-cu	7, fr.-cu : 10 : 5
3	3·7	0·43	2·6	0·30	NNW	NW : NNW	1·3	0·14	277	5 : 9 : 10, s.-cu	10, s.-cu, fr.-s : 9, oc.-shs : 5
4	0·8	0·09	0·8	0·09	NNW : Calm : SW	SW : WNW	2·9	0·11	252	6 : 10, f : 10, s.-cu, alt.-s	10 : 10, r, slt.-r
5	7·9	0·90	7·5	0·86	WSW : W : NNW	N : NE	6·1	0·45	362	10, r, slt.-r : 10 : 9,n,oc.-m.-r.-sh	9,n,cu.-n,oc.-shs: 7 : 5
6	7·9	0·96	7·6	0·93	NE : Calm	SW	2·4	0·08	193	0, ho.-fr : 0 : 1, ci.-cu, h	0, h : 0, h
7	6·6	0·80	5·6	0·68	SW : WSW	WSW : WNW : SW	1·6	0·12	269	1, th.-cl : th-cl : 8, ci.-cu.	th.-cl, ci.-cu, h : v.-cl. th.-cl, alt.-cu
8	6·6	0·80	5·6	0·68	SW : Calm	Calm : WSW	0·3	0·01	164	6, th.-cl : 7, slt.-f : 7, s.-cu, h	9, s.-cu, h : 6, h, m : 3, m
9	2·9	0·35	2·3	0·28	WSW : NNW	N : NNE : Calm	2·7	0·08	214	v.-cl : 10, n, sh, oc.-glm	8, n, fr.-s : 6 : 3, ho.-fr
10	0·0	0·00	0·0	0·00	Calm : NNW	N : NNE	7·2	0·93	399	10 : 9 : 9, fq.-r, w	6, fr.-cu, w: 9, oc.-slt.-m.-r : 10, r
11	0·0	0·00	0·0	0·00	NNE	NE	9·5	1·60	595	10, r, m.-r.-sh : 8 : 9, cu, n, w	10,n,oc.-m.-r,r,st.-w: 10, c.-r : 10, slt.-r, sl.-sh
12	0·0	0·00	0·0	0·00	NNE : NE	NE : NNE	3·8	0·59	433	10, m.-r, slt.-r, w : 10, sl, slt.-r : 10, n, m.-r	10, n, oc.-slt.-r : 10, r, oc.-sl : 10, slt.-r
13	2·1	0·26	0·4	0·05	NNE : NE	NE : NNE : Calm	0·9	0·03	193	10, m.-r : 10 : 10, n, m.-r, slt.-r	10, n : 9 : 5, ho.-fr, slt.-f
14	3·5	0·43	3·3	0·41	Calm	NNE : ENE : E	0·3	0·01	123	10 : 10, f : 10, s.-cu, f	9,fr.-cu,s.-cu,h : 10 h : v.-cl, h
15	2·6	0·33	1·7	0·21	E : ENE : NE	ENE : E : NE	4·9	0·44	350	v.-cl, ho.-fr : v.-cl, f : p.-cl, h	p.-cl, slt.-h : 2 : 8, th.-cl
16	7·6	0·95	5·8	0·72	NE : NNE	NE : E : Calm	1·6	0·12	248	9 : 10 : 10 s.-cu, n,	9, s.-cu, cu : 1, ho.-fr
17	3·5	0·44	3·3	0·42	Calm	SSW	1·5	0·09	172	1, ho.-fr, m: 0, tk.-f : 0, f, h	1, h : 10 : 9, th.-cl, lu.-ha
18	8·0	1·00	8·0	1·00	SSW : SW	SW : SSW	1·9	0·18	271	10 : 10, m : 7, cu, alt.-cu	9 : 0, d, slt.-h
19	5·1	0·64	4·2	0·53	Calm : SSW : SW	SW : WSW : N	2·5	0·20	249	0, ho.-fr, slt.-h : 0	0 : th.-cl, lu.-ha
20	7·2	0·99	6·7	0·92	NNE : NE	NE	4·0	0·60	465	9, w : 10 : 10, alt.-s,ci.-s,w	9, ci.-s, prh, so.-ha : 1 : th.-cl, lu.-ha
21	7·2	1·00	7·2	1·00	NE : NNE	NE : ESE : E	4·9	0·25	280	1, ho.-fr : 0 : 1, cu, slt.-h	3, cu, ci : 9 : 0, d
22	4·0	0·56	2·1	0·29	ENE : NE	NE : N : S	2·0	0·06	211	1, ho.-fr : 5 : 1, cu	1, fr.-cu : 2 : 10, th.-cl,s.-cu
23	3·0	0·41	2·5	0·34	WSW : E : NE	NE	1·0	0·08	196	10 : 10, alt.-s, s.-cu, n, slt.-sh	10, alt.-s, alt.-cu : 10
24	0·6	0·09	0·6	0·09	Calm : WSW : W	NW : NE : Calm	5·2	0·43	312	9, ho.-fr : 8 : 0, w, h	9,s.-cu,m.-r,sh,w : 9, m.-r
25	5·1	0·70	2·6	0·36	NW : SW	W : NW : N	1·2	0·06	205	9 : 8, m : 9, s.-cu, h	8, s.-cu, h : th.-cl
26	4·6	0·63	3·9	0·54	Calm : SW	SW : SSW	1·3	0·08	203	9 : 8, m : 10, n, s, oc.-slt.-r	10, s.-cu : 2 : 3, h
27	1·7	0·25	0·6	0·09	SW : W : NNW	Calm : SE	2·0	0·17	259	5 : 9, slt.-r : 9, fr.-cu, s.-cu	8, cu, alt.-cu, h : 9, oc.-th.-cl : 9, oc.-th.-cl
28	0·0	0·00	0·0	0·00	SSE : SE	E : ENE	2·5	0·13	246	10, m.-r : 10 : 9, cu.-n, ci.-cu	10 : 10, oc.-m.-r : 10, slt.-r
29	0·0	0·00	0·0	0·00	ENE : NNE	NE : NNE	2·6	0·36	359	9, slt.-sh : 10, m.-r	10, n, r : 10, c.-r : 10, c.-r
30	6·3	0·93	6·2	0·92	NNE	NNE : NE	3·8	0·45	366	10, r, m.-r : 10 : 10, n, s.-cu	9, s -cu : 9 : p.-cl
Means	3·8	0·49	3·2	0·41	..	..	..	0·31	289		
Number of Column for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 40°·4, being 3°·5 lower than
The mean *Temperature of the Dew Point* for the month was 34°·3, being 5°·3 lower than
The mean *Degree of Humidity* for the month was 68·2, being 6·3 less than
The mean *Elastic Force of Vapour* for the month was 0·197in., being 0·047in. less than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·317. The maximum daily amount of *Sunshine* was 12·6 hours on April 19.

The highest reading of the *Solar Radiation Thermometer* was 134°·7 on April 19; and the lowest reading of the *Terrestrial Radiation Thermometer* was 12°·2 on April 6.

The *Proportions of Wind* referred to the cardinal points were N. 10, E. 6, S. 4, W. 6. Four days were calm.

The *Greatest Pressure of the Wind* in the month was 10·1 lbs. on the square foot on April 1. The mean daily *Horizontal Movement of the Air* for the month was 289 miles; the greatest daily value was 595 miles on April 11, and the least daily value was 123 miles on April 14.

Rain (0·005in. or over) fell on 11 days in the month, amounting to 1·159in., as measured by gauge No. 6 partly sunk below the ground; being 0·407in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY 1929.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean	Greatest	Least	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 4 ft. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
May 1	29·683	53·0	29·1	23·9	40·4	− 8·9	37·0	31·6	8·8	20·6	0·0	69	112·5	17·4	44·1	0·000	4·9	14·8
2	29·650	53·7	30·9	22·8	42·5	− 7·0	37·3	28·6	13·9	25·2	0·6	57	117·1	18·9	44·2	0·000	13·2	14·8
3	29·824	56·9	34·9	22·0	44·8	− 5·0	39·2	30·3	14·5	29·0	2·2	56	132·8	22·7	44·1	0·000	12·2	14·9
4	29·775	61·8	33·9	27·9	47·9	− 2·1	44·4	39·9	8·0	16·5	2·0	73	110·8	21·2	44·1	0·016	1·3	14·9
5	29·446	55·5	48·8	6·7	51·8	+ 1·5	50·5	49·2	2·6	4·5	0·8	91	76·0	46·1	44·2	0·388	0·0	15·0
6	29·283	57·4	42·0	15·4	51·1	+ 0·6	47·9	44·3	6·8	14·5	1·8	78	85·6	29·7	44·5	0·178	1·9	15·0
7	29·504	60·9	43·0	17·9	49·9	− 0·8	45·8	40·9	9·0	18·1	0·8	71	130·1	32·3	44·8	0·256	8·7	15·1
8	29·644	61·4	44·0	17·4	51·5	+ 0·5	46·5	40·5	11·0	20·1	3·5	66	129·6	34·4	45·0	0·024	9·0	15·2
9	29·932	62·0	42·1	19·9	51·4	+ 0·2	45·9	38·9	12·5	22·7	0·4	63	114·0	29·9	45·0	0·000	6·4	15·2
10	30·001	67·8	40·3	27·5	53·2	+ 1·7	45·8	35·9	17·3	35·1	0·0	52	133·0	30·2	45·2	0·000	12·7	15·3
11	29·938	60·3	42·6	17·7	50·8	− 1·0	48·4	45·7	5·1	9·5	1·4	83	89·0	33·4	45·4	0·029	0·0	15·3
12	29·806	60·5	47·1	13·4	52·5	+ 0·4	50·9	49·3	3·2	8·4	2·0	89	106·4	39·7	45·8	0·220	0·7	15·4
13	29·818	63·0	42·0	21·0	52·5	+ 0·1	48·3	43·7	8·8	17·7	0·9	71	123·3	30·2	46·0	0·026	7·4	15·4
14	29·645	62·6	44·2	18·4	52·2	− 0·4	48·0	43·3	8·9	19·3	3·0	71	124·2	36·1	46·0	0·131	8·5	15·5
15	29·687	65·8	47·2	18·6	53·9	+ 1·1	48·7	43·0	10·9	20·4	3·4	66	125 5	36·1	46·1	0·001	5·9	15·5
16	29·972	65·9	44·0	21·9	54·0	+ 1·0	48·3	41·7	12·3	23·4	2·4	63	118·4	31·6	46·7	0·000	7·4	15·6
17	30·057	62·1	41·2	20·9	51·1	− 2·0	46·4	40·8	10·3	19·1	0·3	68	134·2	27·0	46·9	0·000	10·7	15·6
18	30·032	61·0	44·0	17·0	49·9	− 3·4	46·6	42·7	7·2	15·7	4·1	76	134·0	42·8	46·9	0·000	2·6	15·7
19	29·954	62·9	42·0	20·9	52·8	− 0·7	46·0	37·3	15·5	33·6	2·9	55	135·8	29·0	47·0	0·000	14·7	15·7
20	29·955	67·6	39·1	28·5	52·7	− 1·1	46·7	39·3	13·4	25·5	2·7	60	140·9	26·0	47·2	0·000	14·4	15·8
21	29·862	71·2	37·4	33·8	55·5	+ 1·3	48·8	41·2	14·3	24·8	1·3	58	139·5	23·8	47·5	0·000	13·4	15·8
22	29·754	78·5	45·1	33·4	62·7	+ 8·1	53·8	44·9	17·8	28·6	7·5	52	148·8	28·1	47·8	0·000	9·0	15·8
23	29·668	83·2	53·0	30·2	67·3	+12·4	57·2	48·2	19·1	36·6	7·0	51	152·1	39·5	48·0	0·000	13·6	15·9
24	29·685	78·4	54·0	24·4	62·4	+ 7·1	58·0	54·6	7·8	19·9	2·7	75	130·9	39·5	48·0	0·551	3·0	15·9
25	29·931	76·6	55·0	21·6	63·8	+ 8·3	55·0	46·7	17·1	37·6	2·5	54	140·0	41·8	48·4	0·000	11·2	16·0
26	29·843	72·3	49·3	23·0	62·4	+ 6·6	55·1	48·4	14·0	31·3	5·7	60	138·0	38·1	48·8	0·000	8·9	16·0
27	29·794	78·4	55·7	22·7	65·9	+ 9·9	59·7	54·9	11·0	22·5	3·0	68	133·2	44·1	49·0	0·000	7·4	16·1
28	29·964	73·8	49·5	24·3	60·3	+ 4·1	55·1	50·4	9·9	19·3	3·4	70	140·0	43·1	49·1	0·000	9·9	16·1
29	30·076	62·7	46·8	15·9	51·9	− 4·5	47·7	43·0	8·9	19·1	4·7	71	133·0	45·7	49·2	0·000	5·9	16·1
30	30·073	66·6	44·0	22·6	54·4	− 2·3	49·3	43·8	10·6	21·0	1·6	67	142·7	34·7	49·8	0·000	9·9	16·2
31	30·013	65·8	43·9	21·9	51·5	− 5·6	48·3	44·8	6·7	16·5	2·5	78	139·9	37·2	49·9	0·000	6·1	16·2
Means	29·815	65·5	43·7	21·7	53·7	+ 0·6	48·6	42·8	10·9	21·8	2·5	67·2	126·2	33·2	46·6	Sum 1·820	7·8	15·5
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29·815in., being 0·014in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 83°·2 on May 23; the lowest in the month was 29°·1 on May 1; and the range was 54°·1.
The mean of all the highest daily readings in the month was 65°·5, being 1°·6 higher than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 43°·7, being the same as the average for the 65 years, 1841–1905.
The mean of the daily ranges was 21°·7, being 1°·5 greater than the average for the 65 years, 1841–1905.
The mean for the month was 53°·7, being 0°·6 higher than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.		hours.				lbs.	lbs.	miles		
May 1	6·7	1·00	6·6	0·98	Calm	Calm : SSE	0·2	0·02	109	1, ho.-fr : 0, f : 1, h	9, n, glm : 10 : 2, ho.-fr
2	6·7	1·00	6·7	1·00	SE : Calm : ENE	ENE : NE	4·3	0·38	303	0, ho.-fr, f : 1, h, cu.-n	1, fr.-cu : 0
3	5·8	0·87	5·6	0·83	NNE : NE : ENE	ENE : E : ESE	1·7	0·15	262	0, m : 2, cu, fr.-cu, ci.-cu	4 : 1 : 0, d, ho.-fr
4	0·0	0·00	0·0	0·00	SSE : SSW	SW	5·0	0·74	377	p.-cl, th.-cl, ho.-fr : 10 : 9, n, s.-cu	9, w : 10, m.-r, slt.-r, r
5	0·0	0·00	0·0	0·00	SW : SSW	SW	5·8	1·36	486	10, r, w : 10, r, w : 10, slt.-r, w	10, m.-r, w : 10, m.-r, slt.-r
6	2·0	0·46	2·8	0·44	SSW : SSE	SW : WSW : SSW	23·2	2·05	535	10, r : 10, r : 10, st.-w	10, g, st.-w : 1, d
7	5·9	0·95	5·6	0·89	SSW : SW	SSW	4·7	0·54	354	10, r, sh : v.-cl : v.-cl, shs	9,cl.-s,cl.-cu,cu.-n : th.-cl,oc.-so.-ha : v.-cl
8	2·6	0·41	2·7	0·43	SSW : SW	SW : W : WNW	5·2	0·48	339	v.-cl : v.-cl : v.-cl,cu,cu.-n,shs	v.-cl, cu, alt.-cu : v.-cl : 10, shs
9	2·1	0·34	2·0	0·32	Calm : NNW	NNW : NE : Calm	1·2	0·05	152	9 : 3, cu, fr.-cu, h	7, s.-cu, cu, slt.-shs : 1, d
10	6·2	0·98	6·2	0·98	Calm : SW	SW	2·9	0·22	228	10, f, d : 4, f, h : 2, cu, fr.-cu, h	1, ci : 0
11	0·0	0·00	0·0	0·00	SW	SW	2·7	0·31	308	3 : 10, oc.-m.-r : 10, n, m.-r	10 : 9 : 10, n, s
12	4·7	0·83	4·6	0·81	SW : SSW	SW : NW : WSW	2·1	0·13	237	10 : 10, m.-r	10, r, sh : 8
13	1·8	0·31	1·6	0·29	Calm : SW	SSW	3·8	0·35	292	2, d : 3 : 9, ci, ci.-s	9, alt.-cu : 9, shs : 9, slt.-m.-r
14	4·0	0·70	3·8	0·67	SSW : SW	SW	9·0	1·38	479	2 : 8, s.-cu, shs, w	v.-cl, shs, w : 9, shs : 9
15	5·2	0·90	5·1	0·89	SW : WSW	WSW : NW	2·6	0·34	333	7 : 10, slt.-r : 9, s.-cu, n	v.-cl : v.-cl : 1, d, h
16	5·7	0·99	5·7	0·99	WSW : NNW	NNW : E	1·1	0·07	180	0, h, d : 0, h : p.-cl, cu, s.-cu	9, s.-cu : 3, h : 0, h, d
17	0·0	0·00	0·0	0·00	Calm : ENE : NNE	NE : E : ENE	1·5	0·13	221	1, h, d, ho.-fr : 1, h, f : 8, cu, slt.-h	v.-cl : v.-cl : 10
18	4·0	0·76	3·9	0·75	ENE : NNE	NNE	1·1	0·17	240	10 : 10 : 9, s.-cu	7, fr.-cu : 10 : 5
19	5·3	1·00	5·3	1·00	NNE : ENE	ENE	4·4	0·53	349	0, d, ho.-fr : 1, m : 1	0 : 1 : 0, d
20	5·3	1·00	5·3	1·00	NE : Calm	ENE : E : Calm	1·0	0·05	168	0, ho.-fr : 0 : 1, cu	1, cu : 0 : 0
21	5·3	1·00	5·3	1·00	Calm	E : SSW	1·0	0·07	146	0, d, ho.-fr : 0 : 0, h	1, slt.-h : 0, slt.-h
22	5·3	1·00	5·3	1·00	S : SSW	SW : SSE	2·0	0·17	239	0 : 7, cu, alt.-cu, ci.-cu, slt.-h	6, alt.-cu, ci.-cu : 7 : 3, h, d
23	4·9	0·94	3·3	0·63	SSE : S : Calm	SE : ESE	2·0	0·13	207	1, th.-cl, h, d : th.-cl : th.-cl, ci.-cu, cu	8, ci.-cu, ci.-s, so.-ha : 7 : th.-cl.lu.-ha
24	2·1	0·40	2·0	0·39	ESE : Calm	VAR : Calm	2·7	0·03	122	7, th.-cl : 7, th.-cl : 10, s.-cu, alt.-cu	10, t.-sm, hy.-r, slt.-r : 2 : 9
25	2·7	0·58	2·6	0·54	NNW	Calm : N	0·4	0·03	138	7 : 9, m : p.-cl, cu, h	0, h : 0, h : 1
26	1·9	0·40	1·6	0·33	Calm	ESE : Calm	1·3	0·06	144	8 : 9, m, h : 7, fr.-cu, ci	2, ci, s.-cu, h : 3 : 8, l
27	4·7	1·00	4·7	1·00	NE : E	E : ENE	3·1	0·48	349	9, l, t : 9, m : 6, ci.-cu, h	9, alt.-cu : 7, w : 2, alt.-cu
28	0·2	0·03	0·0	0·00	ENE : NE	NE	2·6	0·50	392	2, d : 10 : 5, s.-cu, h	0, h : 0, h : 6, d, w
29	2·5	0·52	2·2	0·45	NE	NE : ENE	2·9	0·58	400	10, w : 10 : 10, s.-cu	8, ci.-cu, ci : 10, slt.-d
30	3·6	0·75	3·3	0·69	NE : ENE	E : ESE	3·3	0·54	359	3, d : 10, m : 7, s, cu	3, ci.-cu, w : 1 : 1, d
31	0·0	0·00	0·0	0·00	ENE : NE	NE : ESE : E	1·5	0·11	224	10 : 10, m : 10, s, s.-cu	1, cu, h : 1, h : 9, d
Means	3·5	0·62	3·4	0·59	..	..	..	0·39	280		
Number of Column for Reference.	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 48°·6, being 0°·4 lower than
The mean *Temperature of the Dew Point* for the month was 42°·8, being 2°·0 lower than
The mean *Degree of Humidity* was 67·2, being 6·7 less than
The mean *Elastic Force of Vapour* for the month was 0·276in., being 0·022in. less than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 5·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·500. The maximum daily amount of *Sunshine* was 14·7 hours on May 19.

The highest reading of the *Solar Radiation Thermometer* was 152°·1 on May 23; and the lowest reading of the *Terrestrial Radiation Thermometer* was 17°·4 on May 1.

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 8, S. 8, W. 5. Five days were calm.

The *Greatest Pressure of the Wind* in the month was 23·2 lbs. on the square foot on May 6. The mean daily *Horizontal Movement of the Air* for the month was 280 miles; the greatest daily value was 535 miles on May 6, and the least daily value was 109 miles on May 1.

Rain (0·005in. or over) fell on 10 days in the month, amounting to 1·82oin., as measured by gauge No. 6 partly sunk below the ground; being 0·095in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1929.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean	Greatest	Least	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 4 ft. below the Surface of the Soil.	Rain collected in Gauge No. 6 whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine	Sun above Horizon.
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
June 1	30·060	70·4	49·1	21·3	56·1	− 1·3	52·0	47·9	8·2	17·4	4·3	75	140·8	39·2	50·0	0·000	4·9	16·2
2	29·845	71·2	52·0	19·2	59·2	+ 1·4	56·4	54·2	5·0	11·7	2·5	83	134·7	48·0	50·0	0·031	1·1	16·3
3	29·598	71·2	53·2	18·0	60·7	+ 2·6	55·4	50·7	10·0	21·4	2·2	70	128·0	44·8	50·2	0·005	4·0	16·3
4	29·536	65·9	49·0	16·9	55·9	− 2·4	52·0	48·1	7·8	19·5	0·6	75	121·1	42·4	50·2	0·568	5·8	16·3
5	29·513	59·9	43·2	16·7	50·0	− 8·4	48·1	45·9	4·1	14·8	0·6	87	97·0	33·9	50·3	0·141	0·1	16·3
6	29·265	63·2	47·7	15·5	54·4	− 3·9	52·1	49·9	4·5	12·7	1·3	85	95·1	41·7	50·6	0·008	1·1	16·4
7	29·482	67·7	47·9	19·8	55·8	− 2·4	51·3	46·7	9·1	19·1	3·0	71	136·2	39·5	50·6	0·043	11·2	16·4
8	29·648	57·3	45·2	12·1	52·4	− 5·7	50·7	49·1	3·3	9·0	1·2	88	83·0	34·0	50·6	0·042	0·3	16·4
9	29·857	72·8	45·8	27·0	58·2	+ 0·2	51·7	45·0	13·2	27·4	0·9	62	142·1	36·0	50·9	0·000	11·9	16·4
10	30·043	71·5	49·9	21·6	59·8	+ 1·7	51·9	43·7	16·1	27·7	5·6	55	128·3	37·2	51·0	0·000	10·7	16·5
11	30·095	73·0	44·0	29·0	60·1	+ 1·9	52·1	43·9	16·2	31·8	2·7	55	147·0	30·1	51·0	0·000	14·0	16·5
12	29·746	69·0	53·1	15·9	60·8	+ 2·4	57·9	55·6	5·2	11·0	0·7	83	116·1	45·6	51·0	0·143	0·2	16·5
13	29·685	69·5	50·1	19·4	60·8	+ 2·3	55·7	51·2	9·6	22·5	1·2	71	137·7	39·6	51·1	0·105	8·9	16·5
14	29·661	64·2	50·5	13·7	56·2	− 2·5	52·3	48·5	7·7	15·8	1·4	76	123·1	40·2	51·1	0·095	7·0	16·5
15	29·783	71·7	49·1	22·6	58·6	− 0·2	53·3	48·3	10·3	19·1	1·0	69	143·1	40·1	51·6	0·000	8·3	16·5
16	29·838	69·8	53·4	16·4	59·8	+ 0·9	54·5	49·7	10·1	22·0	1·4	69	130·8	42·9	51·8	0·037	5·0	16·5
17	30·090	72·5	48·9	23·6	60·1	+ 1·1	54·1	48·6	11·5	24·5	1·8	65	135·2	35·4	51·9	0·000	8·1	16·6
18	30·083	78·9	44·6	34·3	62·6	+ 3·4	55·0	48·0	14·6	24·6	0·5	59	150·1	30·6	52·0	0·000	10·9	16·6
19	30·026	82·7	48·7	34·0	66·5	+ 7·0	57·7	50·2	16·3	29·8	1·0	55	148·6	34·7	52·2	0·000	14·3	16·6
20	30·083	74·3	53·9	20·4	62·5	+ 2·6	55·6	49·4	13·1	27·7	6·6	62	129·2	39·3	52·3	0·000	6·9	16·6
21	30·237	68·4	50·8	17·6	58·6	− 1·7	50·6	41·7	16·9	23·8	8·9	54	144·7	36·9	52·4	0.000	10·7	16·6
22	30·008	67·3	53·0	14·3	59·7	− 0·9	54·9	50·5	9·2	16·6	4·3	72	121·1	39·0	52·5	0·011	0·4	16·6
23	29·799	73·0	53·7	19·3	62·9	+ 2·0	55·2	48·1	14·8	33·7	3·1	58	142·4	42·8	52·9	0·000	8·8	16·6
24	29·755	66·2	49·3	16·9	56·1	− 5·1	48·9	40·6	15·5	25·8	7·2	56	129·7	37·0	52·7	0·000	4·6	16·6
25	29·853	66·9	47·3	19·6	55·2	− 6·2	48·2	39·9	15·3	25·4	6·0	56	140·1	35·0	52·9	0·000	12·6	16·6
26	29·925	71·1	46·0	25·1	57·0	− 4·5	50·9	44·5	12·5	26·9	2·9	63	141·1	30·6	53·0	0·000	9·6	16·5
27	29·961	60·0	47·1	12·9	53·4	− 8·2	49·2	44·7	8·7	14·3	3·0	72	98·5	36·8	52·7	0·000	0·6	16·5
28	30·037	70·8	46·4	24·4	56·4	− 5·2	51·1	45·6	10·8	26·1	1·9	67	145·0	37·4	53·0	0·000	11·2	16·5
29	29·928	65·1	44·3	20·8	53·5	− 8·1	48·5	43·0	10·5	19·8	3·8	67	144·3	34·1	53·0	0·000	7·2	16·5
30	29·677	56·7	49·0	7·7	52·2	− 9·3	48·6	44·7	7·5	11·3	4·7	75	80·1	44·1	52·8	0·001	0·0	16·5
Means	29·837	68·7	48·9	19·9	57·9	− 1·5	52.5	47·3	10·6	21·1	2·9	68·5	128·5	38·3	51·6	Sum 1·230	6·7	16·5
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29·837in., being 0·015in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 82°·7 on June 19; the lowest in the month was 43°·2 on June 5; and the range was 39°·5.
The mean of all the highest daily readings in the month was 68°·7, being 2°·0 lower than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 48°·9, being 1°·0 lower than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 19°·9, being 0°·9 less than the average for the 65 years, 1841–1905.
The mean for the month was 57°·9, being 1°·5 lower than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Mean of 24 Hourly Measures.	Robinson's, Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.		hours.				lbs.	lbs.	miles.		
June 1	0·0	0·00	0·0	0·00	NE : Calm	WSW : SW	0·8	0·07	176	10 : 10 : 9, h	3, ci : 5, so.-ha, h : 10
2	0·0	0·00	0·0	0·00	SW	WSW : SW	2·9	0·51	379	10 : 10, r : 10, s.-cu, n, slt.-r	9 : 9 : 10
3	3·0	0·67	2·7	0·60	SW : WSW	WNW : W	5·1	1·00	482	10, sh : 10 : 9, alt.-cu, cu.-n	9, ci, cu.-n, w : 9, w, slt.-sh : p.-cl
4	1·9	0·43	1·7	0·39	W : WNW	VAR : Calm	5·1	0·37	298	8 : 9 : 9,alt.-cu,ci,cu.-n,sh	9, cu.-n, s.-cu, hy.-shs, t, l : 9, r, m
5	0·2	0·03	0·2	0·03	W : Calm : WSW	SW : Calm	0·6	0·03	148	7 : 10, m : 10, alt.-s, slt.-sh	10, alt.-s, n, r : 10, r, oc.-hy.-shs : 10
6	4·5	1·00	4·5	1·00	Calm : SW	SW : W	6·3	0·53	362	10, m.-r : 9 : 10, n, slt.-r	10, oc.-slt.-r : 8 : 1, d
7	4·1	0·90	4·1	0·90	W	W : WSW	5·1	0·37	345	1, d : 2 : v.-cl, fr.-n, sh	v.-cl,ci,cu.-n,so.-ha,shs : v.-cl,so.-ha : 6, d
8	4·4	0·98	4·1	0·92	SW : Calm	Calm : WSW	1·0	0·02	130	6, th.-cl, d : 9 : 10, r, m.-r	10, s, n, m.-r : 10, m.-r, sh : 6,ci.-cu,alt.-cu,d
9	1·8	0·40	1·3	0·30	W	NW : N : Calm	1·0	0·13	224	1, d : 2 : 6, cu, fr.-cu	7, cu : 7 : 9, s.-cu
10	4·5	1·00	4·5	1·00	NE : Calm	Calm : NNW : SSW	0·6	0·03	148	7, d : 6, h : 5, cu.-n, cu	7, cu, h : 7 : 0, d
11	2·2	0·48	1·7	0·38	Calm : SE	SE : ESE	3·1	0·16	192	0, d, ho.-fr : 0 : 0	1,ci,ci.-cu,so.-ha : 2 : 8, th.-cl, d
12	0·0	0·00	0·0	0·00	ENE : E	ESE : SSE	1·4	0·09	202	9 : 10, fq.-r : 10, alt.-s,n,oc.-slt.-r	10, alt.-s, n, r, hy.-r : 10, alt.-s, ci.-s, sh
13	1·9	0·43	0·8	0·17	S : SW	SW : SSW	4·1	0·64	395	10, sh : 10, c.-r : v.-cl, cu, fr.-s	v.-cl, cu : p.-cl : 2, th.-cl, lu.-ha
14	1·8	0·40	1·7	0·38	SSW : SW	SW	5·9	0·77	408	9, sh : 7 : 9,alt.-cu,alt.-s,n,w,shs	9,alt.-s,cu.-n,fq.-r,w : 9, shs, r : 9, r, slt.-r
15	0·0	0·00	0·0	0·00	WSW	WSW : SW	4·6	0·59	399	2 : 7, m : 8,ci.-cu,ci,so.-ha	8, cu, w, so.-ha : 9 : 10, slt.-r
16	3·4	0·76	3·3	0·74	SW : W	W	3·6	0·59	417	10, r, w : 10 : 10, s.-cu, w	8, cu, n : 7 : 5, n, s.-cu
17	4·4	0·99	4·2	0·94	W : Calm	Calm : SSW	0·5	0·01	117	7 : 1, m : 9,alt.-cu,cu.-n,h	8, s.-cu, h : 7 : 5
18	4·5	1·00	4·5	1·00	SSW : Calm : WSW	Calm : SSW	0·3	0·02	120	2, d : 0, h : 3, s.-cu, h	6, s.-cu : 5 : p.-cl, h
19	4·5	1·00	4·5	1·00	SSW : Calm	WSW	0·3	0·01	164	0, h, d : 0, h : 0, slt.-h	0, slt.-h : 1 : 2, th.-cl, lu.-ha
20	4·5	1·00	4·5	1·00	WSW : W : WNW	N	1·5	0·11	254	2 : 2, m : 8, cu.-n, h	9, cu.-n, cu, h : 9, h : 2, th.-cl
21	1·4	0·30	1·3	0·28	N	N : NNW	1·4	0·12	261	1 : p.-cl : 7, cu, s.-cu	8, cu : 7, ci
22	2·7	0·61	2·5	0·55	NNW : W : WSW	W	2·0	0·22	330	8 : 10, alt.-s, slt.-r : 10, n, oc.-th.-cl	10, n, s, m.-r : 10 : 9
23	4·0	0·90	3·9	0·87	W : NW	NW : NNW	4·0	1·02	463	p.-cl : 9, n : 6, cu, ci.-cu	3 : 1 : p.-cl
24	4·5	1·00	4·5	1·00	NW : W	NNW : N	2·9	0·24	317	8 : 9 : 9,n,alt.-cu,alt.-s	9,alt.-cu,ci.-s,s.-cu : 2 : 1
25	2·3	0·50	1·9	0·41	N	N : NE	3·0	0·20	288	0 : 0 : 6, cu	9, cu, s.-cu : p.-cl : 3
26	4·4	0·97	4·2	0·94	NE : Calm : N	N : SW	0·5	0·02	154	p.-cl : 3 : 6, cu, fr.-cu, h	7, s.-cu, cu, h : 1, h, d
27	3·3	0·72	3·1	0·69	NNE	NNE : NE	1·6	0·16	260	2, d : 9, m, d : 10, s.-cu, fr.-s	9, s.-cu, fr.-s : 9 : 9
28	4·5	1·00	4·5	1·00	NE	ESE : E	1·2	0·12	236	5 : 10, m : 6, ci, ci.-s, fr.-cu	5,ci,ci.-s,fr.-cu,so.-ha : 2 : 1, hy.-d
29	0·0	0·00	0·0	0·00	ENE	ESE : ENE	2·8	0·44	346	0, d : 8, d : p.-cl, so.-ha	7, alt.-s,so.-ha : 9, so.-ha : 8, alt.-s
30	0·4	0·09	0·2	0·05	ENE	E : NE	2·8	0·50	364	9 : 10 : 10, n, alt.-s	10, alt.-s, c.-m.-r : 10, n
Means	2·6	0·59	2·5	0·55	..	..	..	0·30	279		
Number of Column for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 52°·5, being 2°·4 lower than
The mean *Temperature of the Dew Point* for the month was 47°·3, being 3°·5 lower than
The mean *Degree of Humidity* for the month was 68·5, being 4·7 less than
The mean *Elastic Force of Vapour* for the month was 0·328in., being 0·047in. less than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·9.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·405. The maximum daily amount of *Sunshine* was 14·3 hours on June 19.

The highest reading of the *Solar Radiation Thermometer* was 150°·1 on June 18; and the lowest reading of the *Terrestrial Radiation Thermometer* was 30°·1 on June 11.

The *Proportions of Wind* referred to the cardinal points were N. 7, E. 3, S. 5, W. 11. Four days were calm.

The *Greatest Pressure of the Wind* in the month was 6·3 lbs. on the square foot on June 6. The mean daily *Horizontal Movement of the Air* for the month was 279 miles; the greatest daily value was 482 miles on June 3, and the least daily value was 117 miles on June 17.

Rain (0·005in. or over) fell on 12 days in the month, amounting to 1·230in., as measured by gauge No. 6 partly sunk below the ground; being 0·808in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1929.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean	Greatest	Least	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 4 ft. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
	in.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	in.	hours	hours
July 1	29·700	62·6	49·1	13·5	54·5	− 7·0	50·0	45·3	9·2	15·9	4·3	71	133·3	42·5	52·9	0·000	0·2	16·5
2	29·658	66·5	48·3	18·2	56·2	− 5·4	52·6	49·2	7·0	18·0	1·6	77	122·1	38·6	53·0	0·023	1·1	16·5
3	29·562	76·1	53·7	22·4	62·8	+ 1·0	57·5	53·2	9·6	20·2	1·3	71	146·9	48·1	53·0	0·000	7·4	16·5
4	29·567	73·0	53·1	19·9	61·1	− 1·0	58·0	55·5	5·6	13·1	0·4	82	135·2	42·9	53·0	0·957	5·4	16·4
5	29·722	68·6	51·6	17·0	59·3	− 3·0	53·0	46·9	12·4	21·8	2·8	63	137·1	41·6	53·0	0·056	14·7	16·4
6	29·712	69·9	52·2	17·7	57·9	− 4·5	53·3	49·1	8·8	17·6	2·0	72	134·2	45·1	53·2	0·006	2·7	16·4
7	29·883	64·7	47·0	17·7	55·1	− 7·3	49·8	44·1	11·0	19·8	2·8	66	118·9	35·0	53·0	0·000	1·3	16·4
8	30·028	66·7	45·9	20·8	55·6	− 6·8	48·8	41·1	14·5	22·7	3·9	58	135·2	32·2	53·1	0·000	10·1	16·3
9	30·049	74·4	49·3	25·1	61·0	− 1·4	54·2	47·7	13·3	23·0	4·5	61	149·9	38·4	53·5	0·000	10·2	16·3
10	30·027	79·1	52·9	26·2	64·3	+ 1·8	55·9	48·4	15·9	27·2	5·2	56	148·3	43·0	53·5	0·000	6·4	16·3
11	30·083	85·2	57·2	28·0	69·5	+ 6·8	60·0	52·5	17·0	31·0	6·0	55	151·7	42·3	53·6	0·000	9·1	16·3
12	30·088	88·1	52·0	36·1	67·2	+ 4·3	59·0	52·4	14·8	33·4	1·7	59	144·4	36·5	53·8	0·000	13·0	16·2
13	30·210	75·6	50·0	25·6	62·2	− 0·9	55·0	49·4	12·8	28·2	2·0	60	150·7	36·7	54·0	0·000	14·8	16·2
14	30·220	78·4	46·2	32·2	63·2	− 0·1	55·9	49·4	13·8	27·2	0·8	61	147·4	32·0	54·0	0·000	14·2	16·2
15	30·106	76·8	47·2	29·6	63·6	+ 0·2	56·5	50·3	13·3	27·5	0·2	62	147·9	30·6	54·1	0·000	14·6	16·1
16	29·874	86·0	58·1	27·9	70·3	+ 6·9	63·0	57·9	12·4	28·2	2·3	65	150·1	49·8	54·2	0·014	13·7	16·1
17	29·835	84·7	61·1	23·6	71·4	+ 8·0	62·7	56·5	14·9	28·7	1·0	59	150·5	49·3	54·5	0·000	14·1	16·1
18	29·972	83·0	56·0	27·0	67·1	+ 3·8	59·5	53·5	13·6	25·7	1·6	62	158·1	42·9	54·7	0·000	13·5	16·0
19	29·967	85·7	52·0	33·7	68·6	+ 5·4	59·3	51·7	16·9	32·2	2·2	55	157·3	36·9	54·9	0·000	14·3	16·0
20	29·879	90·3	55·6	34·7	72·2	+ 9·0	64·2	58·7	13·5	23·5	1·8	63	153·3	44·2	55·0	0·233	8·3	15·9
21	29·831	83·8	62·3	21·5	71·4	+ 8·2	65·9	62·5	8·9	17·6	1·0	73	147·9	50·9	55·2	0·022	9·9	15·9
22	29·843	78·8	60·7	18·1	67·8	+ 4·7	61·3	56·6	11·2	20·8	5·5	67	147·9	50·6	55·1	0·000	9·3	15·8
23	29·906	81·2	59·1	22·1	66·8	+ 3·8	61·2	57·1	9·7	23·1	2·3	71	146·2	47·4	55·4	0·008	6·8	15·8
24	29·799	76·4	54·7	21·7	65·4	+ 2·5	59·3	54·6	10·8	22·0	0·4	68	134·2	42·0	55·7	0·000	4·0	15·8
25	29·800	71·0	53·1	17·9	61·0	− 1·7	55·7	51·0	10·0	28·5	4·6	70	148·9	40·7	55·9	0·000	10·2	15·7
26	29·931	73·9	47·9	26·0	61·9	− 0·6	54·8	48·2	13·7	28·9	1·6	60	128·2	32·6	56·0	0·000	5·2	15·7
27	30·055	70·0	50·0	20·0	60·0	− 2·4	55·1	50·6	9·4	15·4	2·8	71	128·1	37·2	56·0	0·000	5·1	15·6
28	29·893	74·0	52·9	21·1	59·7	− 2·6	56·0	52·9	6·8	17·8	0·3	78	136·2	50·9	56·0	0·134	0·8	15·6
29	29·552	75·1	57·6	17·5	66·0	+ 3·7	61·3	57·9	8·1	17·4	0·6	75	121·1	53·8	56·0	0·047	5·1	15·5
30	29·691	74·0	53·0	21·0	62·7	+ 0·4	56·0	50·0	12·7	22·7	2·4	63	133·6	41·0	56·0	0·000	4·1	15·5
31	29·380	68·8	55·2	13·6	59·8	− 2·4	56·6	54·0	5·8	10·6	1·7	81	112·9	49·5	56·0	0·258	2·0	15·4
Means	29·865	76·2	53·1	23·1	63·4	+ 0·8	57·1	51·9	11·5	22·9	2·3	66·3	140·6	42·1	54·4	Sum 1·758	8·1	16·0
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29·865in., being 0·059in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 90°·3 on July 20 ; the lowest in the month was 45°·9 on July 8, and the range was 44°·4.
The mean of all the highest daily readings in the month was 76°·2, being 2°·0 higher than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 53°·1, being 0°·2 lower than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 23°·1, being 2°·2 greater than the average for the 65 years, 1841–1905.
The mean for the month was 63°·4, being 0°·8 higher than the average for the 65 years, 1841-1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	P.M.
	hours.		hours.				lbs.	lbs.	miles.		
July 1	1·9	0·42	0·8	0·18	NE	ESE : Calm	0·7	0·09	170	10 : 10, n	10, n, s.-cu : 9, d
2	0·0	0·00	0·0	0·00	Calm : SE	SE : ESE : ENE	0·6	0·05	143	9 : 10 : 8, s.-cu, cu	10, s.-cu, alt.-cu : 10, m.-r : 10, m.-r
3	0·0	0·00	0·0	0·00	Calm	SSW : Calm	0·6	0·04	125	10, m.-r.-sh : 10, m, h : 5, cu, fr.-cu, h	9,s.-cu,alt.-s,cu.-n,h : 9, th.-cl, h : 9, h
4	4·5	1·00	4·5	1·00	Calm : W	WSW : SW	2·5	0·23	252	10, c.-r, t, l : 10, slt.-f, c.-r	10,n,c.-r,hy.-r,glm : 7,alt.-s,n,ci.-cu,shs,t : 0 : 0, d
5	0·9	0·19	0·7	0·16	SW	SW : WSW	7·8	1·29	498	0 : v.-cl, cu, w	p.-cl : 2 : 7, r
6	3·3	0·69	3·0	0·62	WSW : WNW	NW : NNW	2·0	0·28	344	9 : 8, cu.-n, n, ci.-cu	9, s.-cu, slt.-sh : 8, s.-cu, alt.-cu
7	3·1	0·65	2·9	0·61	NW : W	NNW : NNE	1·0	0·07	208	6 : 9, alt.-cu, s.-cu, n, slt.-r	10 : 10 : 9
8	3·5	0·73	3·4	0·72	N	N : NW : WSW	1·1	0·12	217	5 : 5, s.-cu, fr.-cu	9, cu, s.-cu : 9 : 7
9	3·7	0·77	3·3	0·69	WSW	SW	1·3	0·18	252	6 : 2, th.-cl : 8,ci,ci.-cu,alt.-cu	9,alt.-cu,ci.-s,so.-ha : 8, so.-ha : 7, d
10	1·8	0·39	1·8	0·39	SW	SW	3·2	0·38	301	8 : 8 : 9,alt.-s,alt.-cu,so.-ha	9, alt.-s, alt.-cu : 9 : 8
11	4·7	1·00	4·7	1·00	SW	SW	1·0	0·09	209	7 : 6, alt.-cu	9, alt.-cu, ci.-cu : 1 : 0
12	3·5	0·73	3·5	0·73	WSW : Calm	NW : N : NE	5·3	0·14	201	0, d : 0, m, h : 2, ci, h	2, alt.-cu, h, w : 3, h : 8
13	5·3	1·00	5·3	1·00	NE	NE : Calm	1·3	0·10	210	1, m : 0	1 : 1, d
14	5·3	1·00	5·3	1·00	Calm	ESE : Calm	0·7	0·05	131	0 : 0, slt.-h	0, slt.-h : 0, slt.-h
15	5·3	1·00	5·3	1·00	Calm : ESE	ESE	4·7	0·51	286	0, m : 0, slt.-h	0 : 0, slt.-h, d
16	4·1	0·79	3·9	0·75	ESE	ESE : Calm	1·8	0·17	230	0, m, d : 0, h	1,alt.-cu,s.-cu,h : 3, h : p.-cl, sh
17	4·8	0·90	4·7	0·89	Calm : WSW	WSW	2·0	0·14	270	2, h : 1, h : 1, ci, cu, h	1, cu : 1
18	5·3	1·00	5·3	1·00	WSW	SW	1·9	0·09	211	6 : 7, h : 6, cu, h	p.-cl, cu : 2 : 1, d
19	5·3	1·00	5·3	1·00	WSW : Calm	VAR : Calm	0·5	0·02	126	1, d : 3, m, d : 1, ci.-cu, h	1, ci.-cu, h : 1, h, d
20	0·0	0·00	0·0	0·00	Calm	Calm : VAR	4·2	0·08	125	1, h, d : 2, h, m : 6,ci,alt.-cu,cu.-n,tk.-h	8, cu.-n, h : 10, t.-sm, hy.-sh : 10, l, hy.-sh
21	3·0	0·52	3·0	0·52	Calm : SW	SW : WSW	1·6	0·09	195	10, fq.-r : 9 : 3, alt.-cu, ci.-cu	7, ci, fr.-cu, slt.-sh : 1
22	4·9	0·85	4·6	0·79	WSW : SW	WSW	5·3	0·83	369	9 : 9, s.-cu, alt.-cu	v.-cl, cu, fr.-cu : 2 : 2, th.-cl
23	5·1	0·88	4·9	0·86	SW : WSW	WSW : W	2·1	0·23	287	6 : 8 : 9,s.-cu,n,fq.-shs	9,alt.-s,ci,cu,fr.-cu,so.-ha,sh : 2, d
24	..	..	..	..	W : Calm	Calm : NNE : E	3·0	0·05	142	7, d : 8 : 8,s.-cu,alt.-cu,h	8, s.-cu, h : 9 : th.-cl, h
25	5·7	1·00	5·7	1·00	E : ENE	ESE : E	2·0	0·22	263	9, h : p.-cl, m, h : 8, cu, fr.-cu, h	8,fr.-cu,alt.-s,ci.-cu : 8 : 3
26	5·6	0·98	5·2	0·90	NE : Calm	Calm : SSW : W	0·6	0·02	124	7, d, m : p.-cl, s.-cu, alt.-cu, h	6,s.-cu,alt.-cu,h : 10, h : 5, s.-cu, h
27	1·0	0·16	0·9	0·15	Calm ; NW : N	NE : E : Calm	1·1	0·05	159	4, h : 8, h : 10,s.-cu,alt.-cu,h	10, s.-cu, h : 2, h : 9, h
28	0·0	0·00	0·0	0·00	Calm : SW	WSW : SW	1·8	0·15	228	8 : 9, h, m : 10,alt.-s,alt.-cu,so.-ha	10, c.-r : 10, m.-r, slt.-shs, r
29	3·2	0·51	3·0	0·48	SW : WSW : WNW	NW : NNW	2·9	0·30	328	10, r, oc.-m.-r : 10, n, sh	9, cu, s.-cu : 2 : 9
30	0·3	0·04	0·2	0·03	WSW : W	WSW	3·1	0·44	365	3 : 6 : 9, s.-cu, ci.-s	9,s.-cu,alt.-cu,ci.-cu,cu.-n : 9, s.-cu, alt.-cu, ci.-cu
31	3·6	0·57	3·2	0·52	SW	SW	10·0	1·06	446	10 : 10, n, c.-m.-r	10, n, m.-r, w : v.-cl, hy.-sh, w : p.-cl, s.-cu, w
Means	3·3	0·63	3·1	0·60	..	..	..	0·24	239		
Number of Column for Reference.	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 57°·1, being 0°·8 lower, than
The mean *Temperature of the Dew Point* for the month was 51°·9, being 2°·2 lower than
The mean *Degree of Humidity* for the month was 66·3, being 6·9 less than
The mean *Elastic Force of Vapour* for the month was 0·388in., being 0·033in. less than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·506. The maximum daily amount of *Sunshine* was 14·8 hours on July 13.

The highest reading of the *Solar Radiation Thermometer* was 158°·1 on July 18; and the lowest reading of the *Terrestrial Radiation Thermometer* was 30°·6 on July 15.

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 4, S. 6, W. 11. Seven days were calm.
The *Greatest Pressure of the Wind* in the month was 10·0 lbs. on the square foot on July 31. The mean daily *Horizontal Movement of the Air* for the month was 239 miles; the greatest daily value was 498 miles on July 5, and the least daily value was 124 miles on July 26.

Rain (0·005in. or over) fell on 11 days in the month, amounting to 1·758in., as measured by gauge No. 6 partly sunk below the ground; being 0·641in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1929.	BAROMETER. Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	TEMPERATURE. Of the Air. Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Of Evaporation. Mean of 24 Hourly Values.	Of the Dew Point. Deduced Mean Daily Value.	Difference between the Air Temperature and Dew Point Temperature. Mean	Greatest	Least	Degree of Humidity (Saturation = 100).	TEMPERATURE. Of Radiation. Highest in Sun's Rays.	Lowest on the Grass.	Of the Earth 4 ft. below the Surface of the Soil.	Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine	Sun above Horizon.
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
Aug. 1	29·294	69·0	55·4	13·6	58·7	— 3·5	55·8	53·4	5·3	11·5	1·8	83	124·7	50·1	55·9	0·526	2·5	15·4
2	29·783	63·9	48·3	15·6	56·1	— 6·0	52·3	48·6	7·5	10·6	1·0	76	100·9	36·0	56·0	0·002	0·4	15·3
3	29·751	65·4	45·0	24·0	56·9	— 5·2	52·9	49·1	7·8	15·6	0·3	75	110·9	31·3	56·0	0·000	0·8	15·3
4	29·494	74·5	52·2	22·3	61·3	— 0·8	57·0	53·6	7·7	22·0	1·8	75	140·0	41·0	56·0	0·026	5·7	15·2
5	29·706	71·4	51·7	19·7	59·9	— 2·2	53·5	47·4	12·5	26·1	2·0	63	139·3	44·1	55·9	0·005	7·1	15·1
6	29·582	66·3	53·6	12·7	59·1	— 3·1	57·6	56·4	2·7	4·7	0·5	91	103·5	49·2	55·9	0·359	0·1	15·1
7	29·622	69·0	54·1	14·9	58·3	— 3·9	56·2	54·5	3·8	11·2	0·8	87	117·0	46·1	55·9	0·315	2·6	15·0
8	29·841	69·0	50·3	18·7	59·4	— 2·9	53·2	47·3	12·1	23·1	2·8	64	129·6	39·6	56·0	0·000	8·6	15·0
9	29·857	69·3	52·7	16·6	59·7	— 2·6	56·1	53·1	6·6	12·9	2·2	79	118·1	39·1	56·0	0·000	0·6	14·9
10	29·909	78·7	55·8	22·9	64·6	+ 2·3	59·9	56·4	8·2	21·5	1·2	75	146·1	46·9	56·0	0·000	7·4	14·9
11	29·894	76·4	57·0	19·4	65·2	+ 2·8	59·8	55·7	9·5	18·5	1·5	72	140·4	46·2	56·0	0·000	4·5	14·8
12	30·017	75·3	53·3	22·0	62·9	+ 0·4	55·3	48·4	14·5	23·9	3·6	59	141·2	39·4	56·0	0·000	9·1	14·8
13	30·021	75·0	47·4	27·6	60·8	— 1·7	54·8	49·4	11·4	22·7	0·8	66	144·1	34·8	56·1	0·000	11·5	14·7
14	29·930	75·7	51·5	24·2	63·5	+ 1·0	56·3	50·0	13·5	25·0	2·7	61	141·8	37·1	56·1	0·000	8·7	14·7
15	29·930	75·8	45·4	30·4	60·0	— 2·4	53·4	47·0	13·0	26·0	1·8	62	141·3	31·9	56·1	0·000	8·1	14·6
16	29·757	73·1	47·8	25·3	60·0	— 2·3	55·7	52·0	8·0	22·2	0·2	75	122·8	36·4	56·1	0·758	1·3	14·5
17	29·676	71·2	54·0	17·2	59·8	— 2·3	55·6	52·0	7·8	20·3	0·8	75	136·5	44·6	56·1	0·034	9·1	14·5
18	29·864	69·6	49·9	19·7	56·9	— 5·0	53·6	50·5	6·4	13·9	1·2	79	127·6	37·1	56·0	0·078	3·9	14·4
19	30·072	66·7	50·8	15·9	57·1	— 4·6	53·0	49·2	7·9	16·1	1·0	75	104·1	39·2	56·2	0·000	0·2	14·3
20	30·004	72·8	50·7	22·1	61·0	— 0·5	55·1	49·8	11·2	22·7	1·6	67	136·7	45·2	56·3	0·000	7·6	14·3
21	29·961	74·0	51·3	22·7	60·9	— 0·4	57·4	54·6	6·3	15·9	1·2	80	135·9	37·4	56·2	0·021	2·3	14·2
22	29·897	73·1	56·9	16·2	62·5	+ 1·4	58·4	55·2	7·3	14·1	3·5	77	134·2	52·1	56·2	0·023	1·8	14·2
23	29·900	80·0	58·3	21·7	66·2	+ 5·3	62·3	59·6	6·6	15·0	2·1	79	143·1	53·4	56·4	0·000	9·0	14·1
24	29·910	79·3	59·9	19·4	66·3	+ 5·5	62·5	59·9	6·4	14·3	1·3	80	141·2	51·9	56·4	0·006	5·6	14·0
25	30·011	77·6	53·6	24·0	65·1	+ 4·4	58·5	53·3	11·8	22·3	2·3	66	142·1	40·1	56·5	0·000	10·8	14·0
26	30·002	76·5	48·7	27·8	63·2	+ 2·5	57·4	52·6	10·6	21·4	0·8	69	141·8	35·3	56·8	0·000	12·6	13·9
27	29·741	82·2	49·1	33·1	66·6	+ 6·0	60·2	55·3	11·3	23·4	0·0	67	145·1	33·0	56·9	0·000	10·5	13·9
28	29·722	77·0	57·4	19·6	65·7	+ 5·3	60·2	56·0	9·7	27·2	2·3	71	142·5	47·2	56·9	0·000	7·6	13·8
29	29·888	77·0	54·1	22·9	63·1	+ 2·8	58·0	53·9	9·2	21·6	1·4	72	143·2	42·0	56·9	0·000	11·0	13·7
30	29·870	79·8	49·6	30·2	62·7	+ 2·6	56·8	51·8	10·9	23·8	0·4	68	145·1	36·2	57·0	0·000	6·1	13·7
31	29·676	90·5	51·2	39·3	69·0	+ 9·1	61·5	56·0	13·0	28·4	1·8	63	154·3	38·8	57·0	0·000	9·4	13·6
Means	29·825	74·0	52·2	21·9	61·7	+ 0·1	56·8	52·6	9·0	19·3	1·5	72·6	133·4	41·4	56·3	Sum 2·153	6·0	14·5
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky, which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29·825in., being 0·035in. higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 90°·5 on August 31 ; the lowest in the month was 45°·0 on August 3 ; and the range was 45°·5.
The mean of all the highest daily readings in the month was 74°·0, being 1°·3 higher than the average for the 65 years, 1841–1905.
The mean of all the lowest daily readings in the month was 52°·2, being 0°·8 lower than the average for the 65 years, 1841–1905.
The mean of the daily ranges was 21°·9, being 2°·2 greater than the average for the 65 years, 1841–1905.
The mean for the month was 61°·7, being 0°·1 higher than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours		hours				lbs.	lbs.	miles		
Aug. 1	1·0	0·15	0·8	0·13	SW : WSW	W : NW : N	6·4	1·08	470	8, sh, w : 9, n, m.-r, r	9,s.-cu,cu.-n,sh,hy.-sh,w : 10,hy.-sh,m.-r : 9
2	6·3	1·00	6·3	1·00	N : Calm	Calm : SSE	0·6	0·02	146	9 : 10, s.-cu, n, sh	9, s.-cu : 0
3	3·0	0·44	2·6	0·39	Calm : SSW : SW	SW : SSW	2·2	0·31	302	0, d, m :10,alt.-s,fr.-n,oc.-m.-r,so.-ha	10, alt.-s, n, shs : 8, alt.-s, alt.-cu
4	2·1	0·31	2·0	0·30	SSW : SW	SW : WSW	2·3	0·42	304	7 : 8 : 10,alt.-cu,ci.-s,n,oc.-m.-r	8, alt.-cu, ci.-s : 2 : 9, n, r
5	0·7	0·10	0·7	0·10	W : NW	WNW : SW	2·0	0·22	313	6 : 8 : 6, cu, alt.-cu, ci	8, alt.-s, alt.-cu, so.-ha : 10, alt.-s, n, sh, slt.-r
6	2·4	0·36	2·3	0·34	SSW : SW	SSW : SW	3·0	0·56	356	10, r : 10, n, ci.-cu, c.-r	10, n, fq.-m.-r, hy.-sh : 9, slt.-shs
7	0·0	0·00	0·0	0·00	SW	Calm : NNE	1·0	0·08	210	9 : 6 : 9,ci.-s,s.-cu,n,so.-ha,slt.-sh	10,cu.-n,s.-cu,hy.-r,slt.-r : 10,m.-r,c.-r : 10, n, s.-cu
8	2·7	0·40	2·1	0·31	N : NNE	Calm : NW : W	0·6	0·04	169	10 : p.-cl : 1, alt.-cu, fr.-cu	8, s.-cu, fr.-s, h : 9, alt.-s, alt.-cu : 1, alt.-cu
9	1·1	0·16	1·1	0·16	Calm : WSW	WSW : SW	1·0	0·10	230	10 : 9, s.-cu, fr.-s	9, alt.-cu, alt.-s, n, slt.-sh : 3, d
10	4·0	0·55	4·0	0·55	WSW : Calm	WSW : SW	0·9	0·05	169	10 : 9 : 6,alt.-cu,ci.-cu,fr.-cu	7, cu, fr.-cu : 7, cu, alt.-cu : 0
11	2·8	0·39	1·5	0·21	SW	W : NW : N	1·9	0·27	290	9 : 10 : 9,s.-cu,fr.-cu,slt.-sh	8,cu,s.-cu,m.-r.-sh : 9, sh : 8
12	7·1	0·98	6·8	0·94	N : WSW : W	WNW : NW : SW	1·1	0·06	201	8, d : 2, h, d, so.-ha : p.-cl, ci.-cu, h	8, s.-cu : 1, d
13	4·3	0·60	3·9	0·54	WSW : Calm	SW	1·3	0·12	200	0, d, m : 1 : 3, cu, slt.-h	7,cu,alt.-cu,alt.-s : 3 : 3, ci.-cu, d
14	7·3	1·00	7·3	1·00	WSW : W : WNW	NW : N : Calm	1·5	0·13	236	10 : 10, m.-r.-sh : 8, fr.-s, ci.-s	8,s.-cu,ci,oc.-so.-ha : p.-cl : 0
15	7·1	0·97	6·4	0·88	Calm	WSW : Calm	0·2	0·01	106	0, m, d : 1, h : 6,alt.-cu,fr.-s,h	6,s.-cu,fr.-s,ci,h : 6, so.-ha : 2, d
16	0·9	0·13	0·7	0·10	SW : Calm	Calm : SE : SW	0·2	0·02	138	1,m,d : 6,th.-cl,alt.-cu : 9,alt.-cu,alt.-s,so.-ha,slt.-sh	10, alt.-s : 10,r,hy.-r,t,l,m.-r : 10, m.-r
17	7·3	0·95	7·0	0·90	WSW	SW : WSW	7·5	0·43	351	9, slt.-sh : 3 : p.-cl, s.-cu, fr.-s	9, n, s.-cu, shs : 9, th.-cl : 1, ci, d
18	2·3	0·30	2·0	0·26	WSW : W	NW : NE	2·2	0·19	260	6 : 8 : 9, s.-cu, fr.-s	9, n, shs, r : 10, oc.-m.-r : 5
19	0·0	0·00	0·0	0·00	Calm	NW : W : WSW	0·4	0·01	116	9, m : 10, s.-cu	10,alt.-s,s.-cu,so.-ha : 10 : 10
20	3·8	0·49	3·4	0·44	Calm : WSW	WSW : SW	0·6	0·05	146	10, m 1, ci, alt.-cu, cu, h	9,s.-cu,alt.-cu : 8 : 9
21	0·0	0·00	0·0	0·00	Calm : SW	W : SW	1·1	0·09	217	p.-cl : 9, m.-r : 10	9, cu.-n, s.-cu : 9 : 10
22	0·0	0·00	0·0	0·00	WSW : WNW	W : WSW	1·2	0·18	288	9 : 10, m.-r.-shs : 9,alt.-cu,n,m.-r.-sh	9, alt.-s, s.-cu : 9 : 10, m.-r, r, l
23	7·7	0·99	7·6	0·98	WSW	WSW : SW	3·6	0·51	373	10, m.-r.-shs : 9 : 8,fr.-s,alt.-s,ci.-cu	8, fr.-s, cu, w : 1, fr.-s : 0, d
24	1·1	0·13	0·7	0·08	SW : WSW	WSW : WNW	2·8	0·50	393	0, d : 8, d : 9, fr.-s	9, s.-cu, n : 10, m.-r.-sh : 10, oc.-m.-r
25	8·3	1·00	8·3	1·00	Calm	WNW:VAR:ENE	0·7	0·04	130	9, d : p.-cl : 9, alt.-cu, cu, h	3, s.-cu, slt.-h : 1 : 1, d
26	8·3	1·00	8·3	1·00	Calm : S	SSE : ESE : Calm	0·7	0·05	137	1, d, m : 1, fr.-cu, h	1, cu : 0, d
27	6·5	0·78	5·3	0·64	Calm : SE	SSE : SSW	0·4	0·03	145	0, d, f, m : 1, ci, slt.-h	6,ci,ci.-cu,slt.-h : 10, fq.-th.-cl : 6, oc.-th.-cl, d
28	8·3	1·00	8·3	1·00	SW : WSW	WSW : SW	2·6	0·38	347	7, d, l, t : 7 : 7, cu, fr.-s, ci.-s	8,alt.-s,fr.-cu,so.-ha,w : 8, so.-ha : 1, d
29	8·2	0·99	7·6	0·92	SW : WSW	SW : SSW	1·7	0·18	274	0, m, d : 1 : p.-cl, fr.-s, ci	7, cu, s.-cu : 3, ci, ci.-cu, d
30	8·3	1·00	8·3	1·00	SW : Calm	SW : SSW : S	0·2	0·02	121	10, th.-cl, d: th.-cl, m, f : 8,ci.-cu,alt.-cu,s.-cu	9,oc.-th.-cl,s.-cu,cu,so.-ha : 1 : 1, d
31	7·6	0·89	6·8	0·80	Calm : ESE : SE	SW : WSW	1·3	0·14	221	1, d : 1, alt.-cu, ci.-cu, ci	6, s.-cu, ci, n, slt.-sh : 6, alt.-cu, d, l
Means	4·2	0·55	3·9	0·52	..	..	..	0·20	237		
Number of Column for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 56°·8, being 0°·7 lower than
The mean *Temperature of the Dew Point* for the month was 52°·6, being 1°·7 lower than
The mean *Degree of Humidity* for the month was 72·6, being 4·2 less than
The mean *Elastic Force of Vapour* for the month was 0·398in., being 0·026in. less than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·415. The maximum daily amount of *Sunshine* was 12·6 hours on August 26.

The highest reading of the *Solar Radiation Thermometer* was 154°·3 on August 31; and the lowest reading of the *Terrestrial Radiation Thermometer* was 31°·3 on August 3.

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 1, S. 8, W. 13. Six days were calm.

The *Greatest Pressure of the Wind* in the month was 7·5 lbs. on the square foot on August 17. The mean daily *Horizontal Movement of the Air* for the month was 237 miles; the greatest daily value was 470 miles on August 1, and the least daily value was 106 miles on August 15.

Rain (0·005in. or over) fell on 11 days in the month, amounting to 2·153, in. as measured by gauge No. 6 partly sunk below the ground; being 0·191in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY 1929.	Barometer.	Temperature.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	Temperature.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the ground.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.			
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean	Greatest	Least		Highest in Sun's Rays.	Lowest on the Grass.				
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
Sept. 1	29·801	77·8	58·3	19·5	66·0	+ 6·2	60·8	56·9	9·1	21·0	2·0	73	144·2	45·4	57·0	0·000	7·7	13·5
2	29·959	76·8	55·6	21·2	64·7	+ 5·0	59·2	54·9	9·8	21·6	0·5	71	120·0	40·9	57·0	0·000	8·7	13·5
3	29·875	73·1	57·0	16·1	63·4	+ 3·8	60·2	57·8	5·6	14·1	0·9	82	136·1	47·8	57·0	0·053	8·0	13·4
4	29·748	89·1	58·5	30·6	70·8	+11·3	64·3	59·9	10·9	26·5	0·0	69	144·9	49·8	57·1	0·000	9·2	13·4
5	29·841	83·4	59·2	24·2	70·6	+11·2	65·2	61·8	8·8	19·8	0·5	73	127·8	48·3	57·1	0·000	4·8	13·3
6	30·053	75·8	55·1	20·7	65·9	+ 6·7	60·9	57·2	8·7	18·8	1·1	74	131·6	43·9	57·1	0·000	7·2	13·2
7	30·189	80·5	53·1	27·4	66·0	+ 7·0	60·7	56·7	9·3	21·2	0·0	72	138·6	41·0	57·2	0·000	9·7	13·1
8	30·065	88·0	54·1	33·9	70·1	+11·3	63·2	58·3	11·8	25·5	1·0	67	137·2	42·2	57·4	0·000	11·0	13·1
9	29·865	86·0	57·9	28·1	70·8	+12·2	63·2	57·9	12·9	29·2	1·2	63	141·7	46·9	57·4	0·000	9·1	13·0
10	29·987	72·2	55·5	16·7	63·5	+ 5·1	59·1	55·8	7·7	16·4	3·8	76	133·2	44·3	57·2	0·000	4·7	13·0
11	29·984	75·0	52·9	22·1	62·7	+ 4·6	57·6	53·4	9·3	23·2	0·8	72	129·2	41·0	57·3	0·000	9·8	12·9
12	29·815	83·1	54·3	28·8	66·9	+ 8·9	61·7	58·0	8·9	22·2	1·3	73	144·1	41·8	57·6	0·000	8·3	12·8
13	29·870	77·0	54·5	22·5	65·9	+ 8·1	60·0	55·5	10·4	19·9	2·7	69	130·4	41·8	57·4	0·000	7·7	12·8
14	29·867	76·7	52·0	24·7	63·0	+ 5·3	58·1	54·2	8·8	17·7	1·0	73	130·3	40·0	57·3	0·000	4·7	12·7
15	29·956	74·7	48·9	25·8	62·5	+ 4·9	56·4	51·0	11·5	24·3	2·2	67	123·4	37·0	57·3	0·000	4·2	12·6
16	30·040	73·4	56·5	16·9	63·0	+ 5·5	58·1	54·2	8·8	20·7	2·0	73	128·4	48·1	57·3	0·000	2·2	12·6
17	29·912	72·6	58·0	14·6	63·6	+ 6·4	59·7	56·8	6·8	12·8	2·7	78	113·0	52·6	57·3	0·000	0·9	12·5
18	29·691	65·0	57·3	7·7	60·7	+ 3·8	59·0	57·7	3·0	9·6	1·8	90	78·0	52·9	57·1	0·000	0·0	12·4
19	29·721	68·2	50·7	17·5	59·5	+ 3·0	54·2	49·4	10·1	16·5	2·2	69	114·8	38·0	57·1	0·000	4·9	12·4
20	29·598	68·6	50·4	18·2	60·0	+ 3·8	53·1	46·3	13·7	30·7	3·9	61	126·3	39·4	57·2	0·007	6·2	12·3
21	29·772	70·2	46·7	23·5	56·8	+ 0·9	50·8	44·5	12·3	20·8	5·1	63	120·7	35·1	57·0	0·000	3·0	12·3
22	30·004	68·0	47·0	21·0	58·0	+ 2·4	52·8	47·7	10·3	20·0	2·9	69	127·2	33·7	57·0	0·000	5·3	12·2
23	30·137	72·7	48·3	24·4	59·4	+ 4·0	55·0	51·0	8·4	19·2	0·2	74	124·7	33·0	57·0	0·000	6·1	12·1
24	30·205	69·0	47·7	21·3	57·9	+ 2·6	53·6	49·7	8·2	16·9	0·8	74	114·5	34·7	57·0	0·000	3·6	12·0
25	30·295	71·2	46·7	24·5	57·7	+ 2·5	52·9	48·4	9·3	27·3	0·0	71	136·2	30·6	57·0	0·000	8·4	12·0
26	30·232	75·6	40·6	35·0	56·4	+ 1·2	50·5	44·2	12·2	33·1	0·0	64	141·1	26·7	56·9	0·000	10·2	11·9
27	30·075	78·2	39·9	38·3	58·3	+ 3·2	51·9	45·4	12·9	27·6	1·1	62	137·6	24·9	56·6	0·000	10·1	11·8
28	29·923	78·1	54·0	24·1	63·5	+ 8·6	57·2	52·0	11·5	26·1	2·8	66	135·5	38·8	56·5	0·000	10·1	11·8
29	29·857	73·3	55·9	17·4	61·4	+ 6·7	58·3	55·9	5·5	16·5	1·1	82	118·2	43·1	56·4	0·052	5·1	11·7
30	29·793	70·8	49·6	21·2	59·6	+ 5·2	56·1	53·2	6·4	17·1	1·0	79	117·7	35·2	56·2	0·055	4·4	11·7
Means	29·938	75·5	52·5	22·9	63·0	+ 5·7	57·8	53·5	9·4	21·2	1·6	71·6	128·2	40·6	57·1	Sum 0·167	6·5	12·6
Number of Column for Reference.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29·938in., being 0·120in higher than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 89°·1 on September 4 ; the lowest in the month was 39°·9 on September 27 ; and the range was 49°·2.

The mean of all the highest daily readings in the month was 75°·5, being 8°·2 higher than the average for the 65 years, 1841–1905.

The mean of all the lowest daily readings in the month was 52°·5, being 3°·4 higher than the average for the 65 years, 1841–1905.

The mean of the daily ranges was 22°·9, being 4°·7 greater than the average for the 65 years, 1841–1905.

The mean for the month was 63°·0, being 5°·7 higher than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.		hours.				lbs.	lbs.	miles.		
Sept. 1	6·7	0·79	6·3	0·74	SW	SW	1·4	0·24	284	1 : 6 : 9,fr.-s,cu,alt.-s,so.-ha	8, fr.-s, alt.-s : 1, d
2	6·6	0·78	5·3	0·62	WSW : Calm	Calm : E	0·2	0·00	109	4, d : 4, m : 1, h	0, h : 0, h : 2, d
3	2·8	0·33	2·2	0·25	ENE : E	E : ENE : Calm	2·1	0·23	240	7, d : 7, m : 6,alt.-cu,cu.-n,ci	8,cu.-n,alt.-cu,t,r,hy.-r : 1 : 3
4	7·7	0·91	6·4	0·75	Calm	Calm	0·2	0·01	83	10, f : f, slt.-f : 0, slt.-f, h	0, h : 0, h : 0, m, d
5	7·8	0·92	7·5	0·88	Calm	Calm : N	0·7	0·02	90	2, d, m, tk.-m : 6,alt.-cu, ci, m, h	1, ci.-cu : 5, h : 0, d
6	8·1	0·95	7·9	0·94	N : NNE	NE : ESE : Calm	0·4	0·06	176	1, d : 2, m, d : 6, ci, cu	p.-cl, cu, s.-cu, h : 0, h : 0, d
7	9·0	1·00	9·0	1·00	Calm : W	W : NW : WSW	0·3	0·02	135	2, d, m : 6 : 0	0 : 0, d
8	9·0	1·00	9·0	1·00	WSW : Calm : NW	NW : Calm	0·1	0·00	106	0, d : 0, m : 1, ci, h	0, h : 0, h, d
9	2·0	0·22	1·0	0·11	Calm : SW : NW	NW : N : E	1·2	0·10	196	0, d : 0, m, h	1, alt.-s, cu : 9 : 8
10	9·0	1·00	9·0	1·00	E : ENE	ESE : E	0·9	0·13	223	10 : 10 : 9, s, fr.-s	2, ci.-cu, cu, h : 1, h : 0, d
11	8·9	0·99	8·5	0·94	E : ESE	SE : ESE	1·6	0·18	240	1, d, m : 2, cu, ci.-cu, slt.-h	1, ci.-cu : 0, slt.-h, d
12	6·1	0·67	4·5	0·50	Calm : ESE : SE	SE : SSW : WSW	1·0	0·05	166	0, h, d : 4, ci.-cu, alt.-cu	2, s.-cu, ci.-cu : 1 : 1, d
13	6·9	0·76	6·9	0·76	WSW : NNE	NW : Calm	0·8	0·06	165	6, d : 9, m, d : 3, s, ci, h	1, h : 0, h : 0, h, d
14	9·0	0·95	8·1	0·85	Calm : WSW	SW : Calm	0·2	0·01	117	2 : 8, f : 6, fr.-s, h	2, fr.-s, h : 6, h : 3, ci.-cu, d
15	6·3	0·66	5·1	0·54	Calm	NE : E	0·3	0·01	110	2, d : p.-cl, m, h : 9, s.-cu	3, h : 6, h, d : 7, h, d
16	1·7	0·18	1·7	0·18	ENE : NE	ENE : NE	1·7	0·16	267	7 : 10, f, d : 10, s, fr.-s	10, s.-cu : 4 : 10
17	3·7	0·39	3·1	0·33	NE	NE	0·9	0·12	231	10 : 10, s.-cu, fr.-s	10, s.-cu : 8, d
18	4·6	0·48	2·3	0·25	NNE : N	Calm : NNW	0·2	0·03	137	10 : 10, m : 10, s	10, s : 10, s : 10, oc.-th.-cl
19	2·9	0·30	2·6	0·28	NNW : NW	WSW : SW	1·7	0·18	271	8, th.-cl, d: 7, th.-cl, m : 9,s.-cu,alt.-s,cu,cu.-n	p.-cl, fr.-cu : 3 : 9, alt.-s, lu.-ha
20	8·4	0·89	7·9	0·83	SW : W : NW	NNW : NW	10·1	1·43	547	10 : 10, m.-r : v.-cl,alt.-s,n,sh,w	v.-cl, s.-cu, alt.-cu, w : 2
21	10·0	0·97	9·9	0·97	WSW : SW	NNW : NW : W	7·0	0·63	419	v.-cl : 10, s, ci.-s	6, cu.-n : 1 : 0
22	9·2	0·89	8·7	0·85	WSW : W : WNW	W : WSW	1·1	0·11	277	0, d : 5, alt.-cu, s, ci	9, n : v.-cl, alt.-cu, d
23	10·1	0·99	10·0	0·98	SW : WSW	WSW : WNW	0·9	0·05	195	v.-cl, d : 0 : 3, s.-cu	9, s.-cu : 1, d
24	6·6	0·64	5·8	0·57	W : Calm	Calm	0·1	0·00	110	0, d : 9, d : 7,alt.-cu,s.-cu,h	8, s.-cu, h : 9 : 0, h, d
25	10·2	0·99	10·1	0·98	Calm	E	1·2	0·07	161	6, d, tk.-f : tk.-f : 0, slt.-f	0 : 0, m, d
26	10·3	1·00	10·3	1·00	Calm : SE	S : SSW	0·7	0·03	153	0, ho.-fr : 0, tk.-f : 0	0 : 0, d, ho.-fr
27	10·3	1·00	10·3	1·00	Calm : SW	WSW : SSW	0·8	0·06	162	0, ho.-fr : 0, f, ho.-fr : 1, cu, ci,	2, alt.-cu, ci : 0
28	8·1	0·75	7·1	0·66	SSW : SW	SW : WSW	1·8	0·20	272	0, d : 2, so.-ha : 1, ci.-cu, ci	1, cu : 8, d
29	1·6	0·15	1·1	0·10	SW	SW : W : WSW	4·7	0·60	321	8 : p.-cl : 7,fr.-s,alt.-cu,w	9,n,fr.-s,slt.-sh : 10, r, m, r : 10, n, r
30	2·3	0·21	1·7	0·16	Calm : SW	SW : WSW : W	4·2	0·51	325	9 : p.-cl, th.-cl : 7,ci,ci.-cu,alt.-cu	10,alt.-s,fr.-s,so.-ha : 10, r, m, r : 10, alt.-s, n, r, sh
Means	6·9	0·72	6·3	0·67	..	..	..	0·18	210		
Number of Column for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 57°·8, being 3°·7 higher than
The mean *Temperature of the Dew Point* for the month was 53°·5, being 2°·4 higher than
The mean *Degree of Humidity* for the month was 71·6, being 8·3 less than
The mean *Elastic Force of Vapour* for the month was 0·412in., being 0·033in. greater than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 4·1.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·517. The maximum daily amount of *Sunshine* was 11·0 hours on September 8.

The highest reading of the *Solar Radiation Thermometer* was 144°·9 on September 4; and the lowest reading of the *Terrestrial Radiation Thermometer* was 24°·9 on September 27.

The *Proportions of Wind* referred to the cardinal points were N. 5, E. 5, S. 5, W. 6. Nine days were calm.

The *Greatest Pressure of the Wind* in the month was 10·1 lbs. on the square foot on September 20. The mean daily *Horizontal Movement of the Air* for the month was 210 miles; the greatest daily value was 547 miles on September 20, and the least daily value was 83 miles on September 4.

Rain (0·005in. or over) fell on 4 days in the month, amounting to 0·167in., as measured by gauge No. 6 partly sunk below the ground; being 1·981in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY 1929.	BAROMETER.	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE			Rain collected in Gauge No. 6 whose receiving surface is 5 inches above the Ground	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.			
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean	Greatest	Least		Highest in Sun's Rays.	Lowest on the Grass.				
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	°	hours	hours
Oct. 1	29·738	61·7	47·8	13·9	54·0	− 0·1	48·9	43·3	10·7	24·3	2·1	67	98·8	38·1	56·1	0·159	5·3	11·6
2	29·430	65·6	53·9	11·7	58·3	+ 4·6	54·4	50·9	7·4	20·6	1·6	77	117·2	44·6	56·1	0·267	4·2	11·5
3	29·424	59·9	49·6	10·3	54·4	+ 1·1	51·1	47·8	6·6	13·0	3·6	79	99·1	39·9	56·1	0·046	0·5	11·5
4	29·582	58·2	44·5	13·7	50·7	− 2·3	46·9	42·5	8·2	17·4	1·7	73	81·7	31·9	56·0	0·000	0·1	11·4
5	29·462	63·8	41·7	22·1	52·9	+ 0·1	48·9	44·6	8·3	20·9	1·2	73	123·5	27·6	56·0	0·000	6·0	11·3
6	29·089	58·6	45·1	13·5	52·5	− 0·0	48·8	44·8	7·7	13·0	2·4	75	109·0	38·3	55·8	0·352	3·9	11·3
7	29·544	63·2	43·0	20·2	52·0	− 0·3	48·1	43·7	8·3	17·9	3·8	73	116·7	31·0	55·8	0·016	7·4	11·2
8	29·312	61·5	47·1	14·4	54·5	+ 2·5	52·7	50·9	3·6	9·5	1·3	88	101·1	43·3	55·6	0·527	2·0	11·1
9	29·815	56·2	40·1	16·1	48·5	− 3·1	44·2	38·5	10·0	19·0	4·2	69	93·2	32·1	55·1	0·000	5·1	11·1
10	30·095	59·3	44·4	14·9	52·0	+ 0·7	48·2	44·0	8·0	14·0	3·0	74	98·2	38·2	55·1	0·057	1·2	11·0
11	30·049	64·8	51·9	12·9	57·1	+ 6·2	54·6	52·5	4·6	9·0	2·2	85	96·4	42·8	55·1	0·023	1·4	10·9
12	30·179	66·9	45·5	21·4	56·1	+ 5·5	53·4	50·9	5·2	11·2	0·8	83	108·5	33·1	55·0	0·000	3·5	10·9
13	30·178	63·3	51·2	12·1	57·1	+ 6·8	53·8	50·7	6·4	13·3	0·8	79	100·1	45·8	55·0	0·000	0·3	10·8
14	30·209	64·1	46·0	18·1	54·9	+ 4·8	51·9	49·1	5·8	12·4	0·0	80	101·2	30·7	55·0	0·000	3·8	10·7
15	30·191	60·6	44·6	16·0	52·6	+ 2·7	50·6	48·7	3·9	8·6	0·7	86	74·0	31·6	55·0	0·000	0·0	10·7
16	29·873	67·1	49·8	17·3	56·5	+ 6·7	52·9	49·5	7·0	17·7	1·6	77	111·4	36·8	55·0	0·000	6·7	10·6
17	29·845	63·6	48·4	15·2	54·5	+ 4·9	51·6	48·9	5·6	12·2	2·0	81	101·3	39·8	55·0	0·000	5·0	10·6
18	29·646	54·2	42·0	12·2	50·5	+ 1·2	47·3	43·7	6·8	14·7	1·8	77	79·2	29·4	54·6	0·012	2·3	10·5
19	29·568	53·0	33·8	19·2	42·7	− 6·4	40·4	36·9	5·8	15·3	0·5	80	82·0	21·7	54·6	0·000	5·4	10·4
20	29·318	51·9	33·0	18·9	44·2	− 4·6	42·6	40·6	3·6	8·7	0·2	87	66·0	20·9	54·4	0·240	0·2	10·4
21	29·531	57·6	36·0	21·6	48·5	− 0·1	45·6	42·0	6·5	17·3	0·5	78	107·8	24·8	54·1	0·000	8·7	10·3
22	29·632	57·9	35·0	22·9	46·1	− 2·2	44·0	41·4	4·7	11·8	0·5	84	102·1	24·0	54·0	0·000	3·8	10·2
23	29·525	57·5	40·5	17·0	50·1	+ 2·0	47·2	43·9	6·2	13·6	1·4	80	99·1	27·9	53·9	0·000	1·1	10·2
24	29·123	59·6	44·0	15·6	53·5	+ 5·6	51·6	49·8	3·7	9·0	1·4	87	78·1	43·2	53·7	0·796	0·1	10·1
25	29·185	54·6	36·1	18·5	44·3	− 3·4	41·9	38·6	5·7	16·5	0·3	80	102·1	25·0	53·3	0·010	5·8	10·1
26	29·437	49·0	34·0	15·0	40·6	− 7·0	38·2	34·5	6·1	15·0	0·0	78	80·9	23·4	53·1	0·000	4·2	10·0
27	29·676	48·6	29·0	19·6	39·3	− 8·2	36·5	31·8	7·5	16·3	0·0	75	83·0	18·8	53·0	0·000	6·9	9·9
28	29·589	54·9	33·0	21·9	45·3	− 2·1	43·6	41·4	3·9	8·0	1·0	86	61·4	21·0	51·8	0·060	0·0	9·9
29	29·222	56·3	46·3	10·0	51·2	+ 3·9	48·0	44·5	6·7	14·8	1·8	78	78·4	38·1	52·5	0·008	4·9	9·8
30	29·646	53·0	44·1	8·9	48·4	+ 1·2	45·1	41·1	7·3	14·8	2·4	75	83·0	34·9	52·4	0·000	2·8	9·7
31	30·153	53·4	40·0	13·4	46·3	− 0·8	43·6	40·2	6·1	10·1	2·6	79	88·9	31·0	52·2	0·000	1·9	9·7
Means	29·654	58·7	42·6	16·1	50·6	+ 0·6	47·6	44·2	6·4	14·2	1·5	78·8	94·3	32·6	54·5	Sum 2·573	3·4	10·6
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

The mean reading of the *Barometer* for the month was 29·654in., being 0·074in. lower than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 67°·1 on October 16 ; the lowest in the month was 29°·0 on October 27 ; and the range was 38°·1.

The mean of all the highest daily readings in the month was 58°·7, being 1°·2 higher than the average for the 65 years, 1841–1905.

The mean of all the lowest daily readings in the month was 42°·6, being 0°·6 lower than the average for the 65 years, 1841-1905.

The mean of the daily ranges was 16°·1, being 1°·8 greater than the average for the 65 years, 1841–1905.

The mean for the month was 50°·6, being 0°·6 higher than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	δ Ursæ Minoris. Duration.	δ Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's. Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.		hours.				lbs.	lbs.	miles.		
Oct. 1	0·0	0·00	0·0	0·00	NW : NNW	SW	2·4	0·22	247	6 : 0 : p.-cl,s.-cu,ci.-s,so.-ha	9,alt.-s,alt.-cu,so.-ha : 10, shs : 10, n, r
2	0·0	0·00	0·0	0·00	SW : WSW	W : WSW	4·0	0·78	418	10 : 10, r : 7, n, r, m.-r	v.-cl,ci,ci.-s,so.-ha,w : th.-cl : 10
3	3·8	0·36	2·7	0·25	SW : WSW	WSW	1·8	0·25	284	10, sh : 10, r, m.-r : 10,n,alt.-s,r,m.-r,sh	10, alt.-s : 8 : 9, th.-cl, d
4	7·8	0·73	5·7	0·53	WSW : Calm	Calm : SW	0·2	0·00	145	9, d : 9, th.-cl : 10,alt.-s,alt.-cu,so.-ha	10, alt.-s, fr.-s, h : 9, m : 2, d
5	2·9	0·26	1·0	0·09	SSW	SW : SSW	5·0	0·91	411	3, ho.-fr : 5 : 6,ci.-s,fq.-so.-ha	7, cu, fr.-cu, w : v.-cl, oc.-m.-r, w : 8, w
6	9·3	0·84	9·1	0·83	SSW : WSW	SW : WSW	13·6	1·92	526	8, w : 10, r, hy.-r : 9, n, alt.-s, shs	9,n,fr.-s,oc.-slt.-r,w : 9,slt.-shs,st.-w : 0, w
7	0·7	0·07	0·4	0·04	WSW	SW : S	2·7	0·22	278	1, w : 0, m : p.-cl,s.-cu,cu.-n	8, n, sh : 0 : 10, s, s.-cu
8	3·9	0·36	3·7	0·34	SSW : SW	SW : W : NNW	4·6	0·45	348	10, c.-r : 10, c.-r : 8,n,alt.-cu,cu.-n,sh,t	10,cu.-n,alt.-s,r,hy.-r : 10, r, m.-r, w : 10, w
9	3·3	0·30	2·3	0·21	NW : W	NNW : NW : WNW	4·1	0·65	423	p.-cl, w : 2, m : 7, s.-cu, ci	8, cu.-n, slt.-sh : 8
10	0·0	0·00	0·0	0·00	W	WNW : WSW	3·6	0·50	406	8 : 9,n,alt.-s,alt.-cu,m.-r,w	9, ci, fr.-cu, w : 10 : 10, r
11	8·4	0·77	7·6	0·69	WSW	W : WNW : NW	3·0	0·55	398	10, sh : 10, slt.-sh : 10,n,m.-r	9, fr.-s, ci, cu : v.-cl, hy.-d
12	5·4	0·47	4·4	0·39	NW : WSW : W	WNW : WSW	0·8	0·07	203	v.-cl, d : v.-cl, m : 9, s.-cu, fr.-s	8,s.-cu,n,alt.-cu,slt.-shs : 7 : p.-cl, m, d
13	3·7	0·33	3·6	0·29	Calm	W : WSW : Calm	1·1	0·03	120	9, d : 10, m, d : 10, s.-cu, fr.-s	9, s : 10 : 9, s.-cu
14	7·3	0·63	6·7	0·59	WSW : Calm	W : WNW : WSW	1·2	0·07	197	2, d : 2, m : p.-cl,alt.-cu,ci,s.-cu	10,s.-cu : 9 : 3, alt.-cu, d
15	1·6	0·14	1·4	0·13	WSW : Calm	Calm	0·1	0·00	92	4 : 9, d : 9,s.-cu,m,slt.-m	10, s, slt.-m : 10, slt.-m : 8, slt.-m
16	11·0	0·96	10·9	0·95	Calm : S : SW	W	6·7	0·44	324	9, d : 8, m, d : 5, fr.-s, s.-cu	5,s.-cu,cu,ci,w : 0, w : 2, d
17	2·2	0·19	1·9	0·16	WSW	WSW : SW	2·0	0·20	298	2, d : 4 : 5, ci.-s	8,ci,s.-cu,ci.-cu : p.-cl : 9, d
18	7·3	0·64	5·9	0·52	W : WNW : NW	N : Calm	1·0	0·05	179	10, r : 8, sh, m : 8,ci.-s,s.-cu,so.-ha	9, ci.-s, s.-cu : 7, f, d
19	9·3	0·78	6·5	0·55	Calm	N : Calm	0·2	0·00	105	4, ho.-fr : 0, f : 0, f, h	2, cu, h : 0, h, f : 0, f, ho.-fr
20	2·4	0·20	1·8	0·15	SW	SW : S : SSE	4·6	0·47	321	3, ho.-fr : 10 : 9,alt.-cu,alt.-s,fr.-s	10, n, r, hy.-r : 10, n, r
21	10·7	0·89	9·5	0·79	SE : E	E : Calm	2·5	0·19	247	10, slt.-sh : 6 : 1, cu.-n, fr.-s	1, fr.-cu : 0, slt.-f : 3, f, ho.-fr
22	3·2	0·27	2·0	0·17	Calm : SW	W : Calm	0·2	0·00	142	8, ho.-fr : 4, f, ho.-fr : 6,alt.-cu,ci,f,h	8, s.-cu, s, h : 8, s.-cu, m, d, m.-r.-sh
23	4·3	0·36	3·5	0·29	W : WSW	WSW : SW	3·0	0·27	296	8, slt.-ho.-fr : 7 : 9, s.-cu	10, s.-cu, alt.-s : 10 : 3, d
24	5·9	0·49	5·5	0·46	SW	SW : NW : WSW	10·5	1·55	489	8, lu.-ha, m.-r : 10, sh : 10,n,ci.-cu,shs,w	10,n,fq.-r.-m.-r,w : 10, r, hy.-r, w : 10, n, r
25	6·9	0·58	3·6	0·30	WSW	SW	1·5	0·11	209	1, ho.-fr : 0 : 2,ci.-cu,cu,s.-cu	8,ci.-s,alt.-s,cu.-n : 10 : 7, r
26	12·5	1·00	9·4	0·75	Calm : N	NNW : NW : WSW	1·3	0·08	201	th.-cl, ho.-fr : th.-cl, f : 2,ci.-s,cu,h,so.-ha	6, cu, s.-cu, h : 0, slt.-f, ho.-fr
27	7·7	0·62	0·0	0·00	WSW : W : N	N : NNW : WSW	1·5	0·08	211	0, ho.-fr : 0, f, h	3, cu, h : 2, ho.-fr, slt.-f : 1, f, ho.-fr
28	1·9	0·15	1·1	0·09	SW : SSW	SW : WSW	5·0	0·37	318	8, th.-cl : 10 : 10, n, s, m.-r	10, n, s, m.-r, w : 9 : 10
29	2·8	0·22	1·8	0·14	WSW : W	W	6·4	0·92	475	10 : 8, sh : 6, fr.-s, s.-cu, w	9,s.-cu,fr.-s,slt.-sh,w : v.-cl : 9, d
30	5·1	0·41	4·1	0·32	NW : N : NNE	NNE : N	5·5	0·95	435	9 : 9 : v.-cl,ci.-cu,s.-cu,n,slt.-sh	v.-cl,alt.-cu,s.-cu,n,slt.-sh : p.-cl : 8, s.-cu, s
31	8·6	0·69	6·3	0·50	N : NNE	NNE : NE	4·0	0·30	287	8 : p.-cl : 8,alt.-cu,s.-cu,ci.-cu	8, s.-cu, alt.-cu : 9 : 1, d
Means	5·2	0·44	3·9	0·34	..	..	..	0·41	291		
Number of Column for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 47°·6, being 0°·3 lower than
The mean *Temperature of the Dew Point* for the month was 44°·2, being 1°·4 lower than
The mean *Degree of Humidity* for the month was 78·8, being 6·1 less than
The mean *Elastic Force of Vapour* for the month was 0·291in., being 0·017in. less than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·317. The maximum daily amount of *Sunshine* was 8·7 hours on October 21.

The highest reading of the *Solar Radiation Thermometer* was 123°·5 on October 5; and the lowest reading of the *Terrestrial Radiation Thermometer* was 18°·8 on October 27.

The *Proportions of Wind* referred to the cardinal points were N. 4, E. 1, S. 7, W. 14. Five days were calm.

The *Greatest Pressure of the Wind* in the month was 13·6 lbs. on the square foot on October 6. The mean daily *Horizontal Movement of the Air* for the month was 291 miles; the greatest daily value was 526 miles on October 6 and the least daily value was 92 miles on October 15.

Rain (0·005in. or over) fell on 14 days in the month, amounting to 2·573in., as measured by gauge No. 6 partly sunk below the ground; being 0·209in. less than the average fall for the 65 years, 1841–1905.

MONTH and DAY, 1929.	BAROMETER.	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation.	Of the Dew Point.					Of Radiation.		Of the Earth 4 ft below the Surface of the Soil.			
	Means of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest	Lowest	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean	Greatest	Least		Highest in Sun's Rays.	Lowest on the Grass.				
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	in.	hours	hours
Nov. 1	30·212	51·1	36·0	15·1	41·6	− 5·4	40·5	39·0	2·6	9·0	0·0	90	81·5	26·0	52·0	0·000	1·5	9·6
2	30·132	49·8	33·5	16·3	43·9	− 2·9	41·3	37·3	6·6	13·8	0·3	79	82·9	22·0	52·0	0·018	4·5	9·6
3	30·114	52·0	38·3	13·7	46·9	+ 0·3	43·7	39·7	7·2	15·7	1·7	75	83·1	27·5	51·9	0·000	5·9	9·5
4	30·241	50·7	33·1	17·6	43·5	− 2·9	41·2	37·9	5·6	9·9	1·5	81	68·0	24·1	51·7	0·000	0·0	9·5
5	29·847	54·9	45·6	9·3	49·5	+ 3·4	45·9	41·5	8·0	13·8	4·9	74	76·0	35·7	51·3	0·000	0·4	9·4
6	29·502	49·1	42·4	6·7	47·2	+ 1·4	46·1	44·7	2·5	6·0	0·8	91	56·0	34·6	51·1	0·070	0·0	9·3
7	29·710	52·0	36·4	15·6	45·8	+ 0·4	43·9	41·5	4·3	8·9	1·3	85	70·7	26·6	51·1	0·005	0·1	9·3
8	29·540	60·0	42·0	18·0	52·6	+ 7·6	50·0	47·3	5·3	11·7	1·0	82	66·9	31·2	51·1	0·399	0·0	9·2
9	29·810	54·0	34·4	19·6	44·6	− 0·0	41·7	37·5	7·1	14·5	1·1	76	89·0	22·3	51·0	0·004	7·3	9·2
10	29·676	50·3	39·1	11·2	45·8	+ 1·5	42·4	37·7	8·1	13·4	4·7	74	67·2	29·8	51·0	0·068	1·5	9·1
11	29·565	56·1	39·2	16·9	47·4	+ 3·4	45·7	43·7	3·7	7·8	2·2	87	56·6	30·9	51·0	0·360	0·0	9·0
12	29·179	56·9	34·0	22·9	44·2	+ 0·5	41·5	37·7	6·5	15·0	2·4	78	80·7	24·5	50·6	0·449	5·5	9·0
13	29·296	40·7	30·3	10·4	36·6	− 6·9	34·8	31·8	4·8	8·2	0·0	82	45·0	19·9	50·5	0·006*	0·0	8·9
14	29·399	40·1	27·8	12·3	34·4	− 8·9	33·1	31·0	3·4	8·2	0·2	86	44·4	17·2	50·1	0·002*	0·0	8·9
15	29·384	40·5	25·9	14·6	32·6	−10·5	31·9	30·8	1·8	3·1	0·0	92	42·8	14·0	50·0	0·082	0·7	8·9
16	28·976	42·8	37·4	5·4	40·3	− 2·5	39·4	38·0	2·3	5·3	0·8	95	44·0	35·0	49·9	0·948	0·0	8·8
17	29·589	44·2	35·0	9·2	39·0	− 3·6	37·3	34·8	4·2	8·1	1·3	85	60·9	28·2	49·3	0·000	0·2	8·7
18	29·881	43·3	31·0	12·3	34·6	− 7·8	34·1	33·1	1·5	6·6	0·0	95	41·1	24·0	49·0	0·050	0·0	8·7
19	29·531	52·7	42·5	10·2	49·4	+ 7·1	47·5	45·3	4·1	6·7	1·9	86	53·7	38·2	49·0	0·203	0·0	8·6
20	29·501	57·8	43·1	14·7	48·8	+ 6·6	45·4	41·3	7·5	11·8	2·4	75	90·2	28·8	48·9	0·000	4·8	8·6
21	29·504	55·0	38·9	16·1	47·5	+ 5·4	45·3	42·8	4·7	9·6	1·1	83	87·0	26·1	48·8	0·001*	6·6	8·5
22	29·382	60·0	48·3	11·7	52·1	+10·0	49·1	45·9	6·2	13·5	3·3	79	97·9	37·2	48·9	0·045	4·4	8·5
23	29·250	53·3	45·3	8·0	49·8	+ 7·8	47·4	44·7	5·1	9·0	3·2	83	65·9	37·6	48·7	0·250	0·4	8·5
24	29·475	51·5	44·1	7·4	48·1	+ 6·1	45·7	43·1	5·0	10·5	2·1	82	69·8	32·5	48·7	0·231	3·3	8·4
25	29·308	56·5	48·1	8·4	53·0	+11·1	50·4	47·7	5·3	11·4	2·6	83	63·1	38·0	48·8	0·160	0·0	8·4
26	29·498	51·7	43·5	8·2	47·9	+ 6·1	45·1	41·7	6·2	9·2	4·0	79	71·0	34·7	48·6	0·118	0·8	8·3
27	29·738	49·8	39·2	10·6	44·4	+ 2·7	42·0	38·7	5·7	9·6	2·2	80	76·0	29·0	48·6	0·061	4·6	8·3
28	29·288	55·3	46·1	9·2	51·0	+ 9·5	50·0	49·0	2·0	5·3	1·0	93	56·2	43·1	48·6	0·772	0·0	8·3
29	29·331	55·8	49·0	6·8	51·7	+10·5	50·3	48·9	2·8	6·2	1·0	90	70·7	41·0	48·6	0·128	1·2	8·2
30	29·125	55·0	44·1	10·9	50·7	+ 9·7	49·5	48·3	2·4	7·1	0·5	91	84·1	30·7	48·5	0·304	1·6	8·2
Means	29·566	51·4	39·1	12·3	45·5	+ 2·0	43·4	40·7	4·8	9·6	1·7	83·6	68·1	29·7	50·0	Sum 4·734	1·8	8·8
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

*Rainfall (Column 16). The amounts entered on November 13, 14 and 21 are derived from frost.

The mean reading of the *Barometer* for the month was 29·566in., being 0·199in. lower than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 60°·0 on November 8 and 22; the lowest in the month was 25°·9 on November 15; and the range was 34°·1.

The mean of all the highest daily readings in the month was 51°·4, being 2°·4 higher than the average for the 65 years, 1841–1905.

The mean of all the lowest daily readings in the month was 39°·1, being 1°·2 higher than the average for the 65 years, 8141–1905.

The mean of the daily ranges was 12°·3, being 1°·2 greater than the average for the 65 years, 1841–1905.

The mean for the month was 45°·5, being 2°·0 higher than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky.				Wind as Deduced from Self-registering Anemometers.					Clouds and Weather.	
	Polaris.		δ Ursæ Minoris.		Osler's.				Robinson's.		
					General Direction.		Pressure on the Square Foot			A.M.	P.M.
	Duration.	Fraction of Total Exposure.	Duration.	Fraction of Total Exposure.	A.M.	P.M.	Greatest.	Mean of 24 Hourly Measures.	Horizontal Movement of the Air.		
	hours.		hours.				lbs.	lbs.	miles.		
Nov. 1	4·8	0·38	3·9	0·31	Calm	Calm	0·0	0·00	90	5, ho.-fr : tk.-f, f	5, alt.-cu, s.-cu : p.-cl, slt.-f : 10, s.-cu, slt.-f
2	3·3	0·26	2·7	0·21	Calm : SSW	SW : WSW	0·8	0·05	184	8, slt.-f, ho.-fr : 7, f : 8, ci.-s, s.-cu	6, ci.-s, s.-cu, m: 10 : 10, n, s, m.-r, r
3	13·0	1·00	13·0	1·00	WSW : NW : NNW	NNW : NW	2·8	0·17	278	9, slt.-f : 1, m : 1, cu, h	1, cu, h : 0, m : 0, ho.-fr, m
4	4·5	0·34	3·6	0·28	WSW : SW	SW	1·3	0·07	220	0, ho.-fr, m : 9, ci, alt.-s, m, f, so.-ha	10, alt.-s, n, m.-r : 10, alt.-s, ci
5	0·0	0·00	0·0	0·00	SW	SW	6·1	0·50	383	8 : 10, alt.-s, alt.-cu, ci, fr.-s	9, ci, alt.-cu, fr.-s, w : 9
6	9·4	0·72	8·8	0·68	SSW : S	S : NW : WNW	1·7	0·10	228	10 : 10, n, alt.-s, sh, oc.-m.-r	10, n, m.-r, slt.-f, glm : 5, d
7	0·0	0·00	0·0	0·00	W : WSW	SW	2·7	0·17	259	1, ho.-fr : 8, s.-cu, alt.-cu,m	10,ci.-s,alt.-cu,s.-cu,alt.-s : 10, slt.-sh, r
8	12·5	0·96	12·0	0·93	SW : W : NW	N : NNW	3·6	0·49	336	10, r : 10, hy.-r : 10, s, fr.-s, s.-cu	10, s.-cu, alt.-cu, fr.-s : 0, h, slt.-d
9	7·7	0·59	5·5	0·43	WSW : SW	WSW : SW	2·6	0·13	278	0, ho.-fr : 0 : 1, cu, ci.-cu	1 : 1 : 8, slt.-sh
10	12·5	0·96	12·3	0·95	SW : NNW	NW : W : SW	4·1	0·47	395	8 : 9 : 10, n, slt.-r, m.-r	6, s.-cu : 1, m : 1, ho.-fr
11	0·1	0·01	0·0	0·00	WSW : SSW	SW	18·1	2·61	636	2 : 3 : 10, alt.-s, n, w, r	10,n,r,slt.-r,w,st.-w,g : 10,fq.-sq.-r,g,st.-w : 10,r,st.-w
12	12·1	0·93	9·8	0·75	SW : NNW : W	W : WSW : SW	8·1	0·95	447	1, r, hy.-r, st.-w : 6, w : p.-cl, alt.-cu, fr.-s, w	8, s.-cu, fr.-s, w: 0 : 1, ho.-fr
13	6·5	0·50	5·2	0·40	Calm : N	N : NNW : W	0·6	0·03	171	1, ho.-fr : 7, ho.-fr : 10,s,alt.-s,f,slt.-f	10,alt.-s,s,slt.-f : 10,fq.-th.-cl,m : 2,ci.-s,lu.-ha,m,ho.-fr
14	9·5	0·73	4·4	0·34	W : NW : Calm	Calm	0·9	0·02	158	p.-cl, m, ho.-fr : 10, m, ho.-fr, f : p.-cl, f, ho.-fr, h	3,s.-cu,ho.-fr,f,slt.-f,h : 0,f,tk.-f,ho.-fr : 0,tk.-f,f,ho.-fr
15	0·0	0·00	0·0	0·00	WSW	Calm : SE	1·7	0·05	184	0, ho.-fr : tk.-f, ho.-fr	8,alt.-s,alt.-cu,f : 10, f, m.-r : 10, m.-r
16	0·8	0·06	0·8	0·06	SE : E : NE	NNE : N	4·9	1·01	469	10, m.-r, r : 10, n, r, w	10, n, r, w : 10, oc.-m.-r : 10, s
17	6·3	0·47	5·2	0·38	N : NW : Calm	N : NNE	1·2	0·11	213	9 : 7 th.-cl : 9,ci.-s,alt.-cu,f,m	9, ci.-s, s.-cu, m: 8, th.-cl, m: 8, slt.-m, ho.-fr
18	0·0	0·00	0·0	0·00	Calm : WSW	Calm : S : SSW	3·2	0·06	171	8, f : 9, f : 10, tk.-f	10 tk.-f : 10, r
19	8·2	0·61	6·7	0·50	SSW	SW : SSW	7·2	1·86	582	10, s h : 10, r, fq.-m.-r : 10, n, m.-r, w	10,fr.-s,n,m.-r,w : 10, w : 8, th.-cl, lu.-ha
20	12·7	0·94	12·0	0·89	SSW : S	SSW : S	2·6	0·24	263	8, th.-cl, lu.-ha : 8, ci.-cu, ci.-s, alt.-s, alt.-cu	8, ci : 7, ci.-s, d
21	8·8	0·65	6·2	0·46	S : SSW	S	1·2	0·09	230	3,lu.-ha,d,ho.-fr: 0 : 1, alt.-cu	p.-cl, ci.-cu : 1 : 8, th.-cl, d
22	5·3	0·39	3·9	0·29	SSE : S	S : SSW	4·0	0·56	361	8, d : 8, s.-cu, alt.-cu, ci.-cu, ci	8,alt.-cu,s.-cu,w: 10, r, m.-r : v.-cl,s.-cu,fr.-s,n,sh
23	8·4	0·62	7·0	0·52	SSW	SW	9·8	1·57	525	v.-cl, r : v.-cl : 10, n, r, m.-r, w	v.-cl, n, s.-cu, r, hy.-r, st.-w, w : v.-cl, shs, w : 1
24	2·1	0·15	1·9	0·14	SSW : SW : W	WSW : SSW	3·0	0·26	349	p.-cl : 10, sh, r, hy.-r : 7,s,s.-cu,alt.-cu,n,sh	1, slt.-h : 6 : 10, m.-r, r
25	8·2	0·60	7·1	0·52	SSW	SW	10·8	2·20	665	10, r, m.-r, w : 10, m.-r, w : 10, n, m.-r, w	10,n,oc.-m.-r,shs,st.-w,w : 5, d, sh, slt.-sh
26	12·5	0·92	11·9	0·88	SW	SW : WSW	3·4	0·49	419	9, w : 3 : 8, s, ci, n, r	7,ci.-s,alt.-s,n,r,prh: p.-cl, sh : 0
27	0·0	0·00	0·0	0·00	WSW	SW	1·8	0·09	253	0, ho.-fr : 0, m : 0	5,ci.-cu,alt.-s,ci.-s,so.-ha,prha: 10 : 10, m.-r
28	4·3	0·31	3·3	0·24	S : SSW	SW : WSW	6·2	0·95	486	10, m.-r, c.-r : 10, c.-r : 10, n, c.-r, r	10, n, r, m.-r, w : 9, oc.-m.-r, sh
29	2·8	0·21	2·4	0·18	WSW : SW : SSW	SW : SSW	4·8	0·26	277	8, w : 10 : 10, n, s, r, shs	6, alt.-cu, s.-cu : v.-cl : 9, r
30	4·0	0·29	3·3	0·24	SSW : SW	SW : SSW : Calm	1·8	0·11	226	9, r, hy.-r : 8, s, n, alt.-cu, s.-cu, fq.-shs	8,alt.-s,alt.-cu,s.-cu,m.-r: 9, m.-r : p.-cl, sh
Means	6·0	0·45	5·1	0·39	..	..	..	0·52	325		
Number of Column for Reference.	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 43°·4, being 1°·5 higher than
The mean *Temperature of the Dew Point* for the month was 40°·7, being 1°·0 higher than
The mean *Degree of Humidity* for the month was 83·6, being 3·0 less than
The mean *Elastic Force of Vapour* for the month was 0·254in., being 0·008in. greater than
} the average for the 65 years, 1841–1905.

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

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·208. The maximum daily amount of *Sunshine* was 7·3 hours on November 9.

The highest reading of the *Solar Radiation Thermometer* was 97°·9 on November 22; and the lowest reading of the *Terrestrial Radiation Thermometer* was 14°·0 on November 15.

The *Proportions of Wind* referred to the cardinal points were N. 3, E. 1, S. 12, W. 11. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 18·1 lbs. on the square foot on November 11. The mean daily *Horizontal Movement of the Air* for the month was 325 miles; the greatest daily value was 665 miles on November 25, and the least daily value was 90 miles on November 1.

Rain (0·005in. or over) fell on 21 days in the month, amounting to 4·734in., as measured by gauge No. 6 partly sunk below the ground; being 2·514in. greater than the average fall for the 65 years, 1841–1905.

MONTH and DAY 1929.	BAROMETER.	TEMPERATURE.							Difference between the Air Temperature and Dew Point Temperature.			Degree of Humidity (Saturation = 100).	TEMPERATURE.			Rain collected in Gauge No. 6, whose receiving surface is 5 inches above the Ground.	Daily Duration of Sunshine.	Sun above Horizon.
		Of the Air.					Of Evaporation	Of the Dew Point.					Of Radiation.		Of the Earth 4 ft. below the Surface of the Soil.			
	Mean of 24 Hourly Values (corrected and reduced to 32° Fahrenheit).	Highest.	Lowest.	Daily Range.	Mean of 24 Hourly Values.	Excess above Average of 65 Years.	Mean of 24 Hourly Values.	Deduced Mean Daily Value.	Mean.	Greatest.	Least.		Highest in Sun's Rays.	Lowest on the Grass.				
	in.	°	°	°	°	°	°	°	°	°	°		°	°	°	ins.	hours	hours
Dec. 1	29·228	49·3	40·9	8·4	46·4	+ 5·5	45·4	44·1	2·3	4·1	0·2	92	56·0	29·3	48·8	0·308	0·0	8·1
2	29·248	54·0	40·0	14·0	48·4	+ 7·5	46·6	44·5	3·9	6·0	1·2	86	53·5	28·0	48·7	0·131	0·0	8·1
3	29·448	51·5	36·2	15·3	44·1	+ 3·0	42·4	40·2	3·9	6·5	0·4	86	69·1	23·6	48·7	0·004*	0·5	8·1
4	29·398	53·7	46·5	7·2	50·3	+ 9·0	48·1	45·7	4·6	10·2	1·4	84	61·6	37·2	48·7	0·148	1·0	8·0
5	29·006	50·9	46·7	4·2	48·7	+ 7·2	46·3	43·7	5·0	9·6	3·2	82	54·0	37·6	48·5	0·771	0·0	8·0
6	29·093	50·4	41·6	8·8	46·5	+ 5·0	43·3	39·1	7·4	12·5	2·8	75	73·1	29·9	48·3	0·471	3·9	8·0
7	28·962	49·6	41·8	7·8	46·1	+ 4·8	41·8	35·7	10·4	17·2	5·9	67	54·0	32·5	48·2	0·071	0·3	8·0
8	29·171	51·8	43·1	8·7	47·2	+ 6·2	44·0	40·0	7·2	13·6	3·2	76	55·9	35·1	48·1	0·381	0·6	7·9
9	29·261	52·4	38·9	13·5	45·0	+ 4·4	42·0	37·7	7·3	11·4	2·6	76	56·0	31·8	48·0	0·299	0·0	7·9
10	29·453	44·1	36·2	7·9	41·1	+ 0·7	38·6	34·8	6·3	10·6	1·8	78	61·8	29·1	48·0	0·171	3·7	7·9
11	29·342	53·8	44·2	9·6	50·7	+10·5	46·7	41·9	8·8	13·3	1·4	72	66·0	41·0	48·0	0·030	1·2	7·9
12	29·792	51·7	40·4	11·3	45·5	+ 5·2	42·5	38·3	7·2	13·7	2·9	77	55·5	33·5	47·8	0·212	0·8	7·8
13	30·099	54·1	45·3	8·8	49·6	+ 9·1	47·6	45·3	4·3	7·6	2·4	86	66·0	37·1	47·8	0·000	1·3	7·8
14	30·012	57·0	53·3	3·7	55·4	+14·7	53·8	52·4	3·0	4·9	2·6	90	65·0	48·1	47·8	0·002	0·0	7·8
15	30·208	56·1	42·3	13·8	46·9	+ 6·1	45·0	42·8	4·1	8·6	1·2	85	52·0	34·6	47·7	0·232	0·0	7·8
16	30·427	42·3	32·0	10·3	38·6	− 2·1	36·5	33·0	5·6	9·5	1·3	84	50·0	19·1	47·7	0·007*	2·7	7·8
17	30·529	40·5	30·9	9·6	35·5	− 4·9	34·0	31·5	4·0	6·4	0·7	85	40·6	20·1	47·6	0·006*	0·5	7·8
18	30·509	37·6	27·8	9·8	31·9	− 8·1	30·5	28·1	3·8	9·3	0·0	85	35·1	15·2	47·4	0·004*	2·9	7·8
19	30·294	40·6	28·7	11·9	33·6	− 5·9	31·4	27·2	6·4	12·9	1·9	78	59·9	12·0	47·0	0·001*	6·5	7·8
20	29·795	36·8	26·1	10·7	32·0	− 7·0	30·2	26·8	5·2	9·5	0·4	81	51·0	13·0	47·0	0·002*	2·9	7·8
21	29·195	39·0	33·8	5·2	37·2	− 1·5	35·8	33·6	3·6	10·1	1·6	87	40·3	27·5	46·7	0·199	0·0	7·8
22	29·086	40·9	34·7	6·2	37·9	− 0·5	37·2	36·0	1·9	2·6	0·9	93	59·2	28·4	46·1	0·159	0·0	7·8
23	29·094	43·1	31·9	11·2	38·6	+ 0·4	38·0	37·0	1·6	4·2	0·2	94	49·9	23·8	46·0	0·053	0·2	7·8
24	29·174	46·2	39·9	6·3	42·9	+ 4·7	41·2	38·7	4·2	8·8	0·8	85	60·7	27·2	45·8	0·232	5·0	7·8
25	29·075	51·9	45·3	6·6	48·5	+10·1	45·0	40·7	7·8	17·1	2·5	74	65·8	37·5	45·8	0·393	2·5	7·8
26	29·579	45·6	38·3	7·3	42·6	+ 4·0	39·4	34·7	7·9	10·5	3·7	73	62·9	28·0	45·6	0·000	4·1	7·8
27	29·533	49·1	38·5	10·6	44·9	+ 6·1	43·2	41·0	3·9	7·5	1·8	86	64·0	31·4	45·5	0·137	2·1	7·8
28	29·453	53·9	33·0	20·9	42·3	+ 3·4	41·2	39·7	2·6	5·0	1·3	91	50·9	23·1	45·5	0·076	0·0	7·8
29	29·271	53·9	41·7	12·2	48·7	+ 9·7	45·3	41·1	7·6	14·2	2·8	75	61·9	33·1	45·4	0·132	2·3	7·8
30	29·486	47·5	38·8	8·7	44·4	+ 5·5	42·3	39·5	4·9	8·0	2·0	83	54·3	31·5	45·3	0·163	0·1	7·8
31	29·790	41·3	34·3	7·0	38·3	− 0·4	36·9	34·8	3·5	4·7	2·0	87	47·0	24·9	45·2	0·001*	2·1	7·8
Means	29·549	48·1	38·5	9·6	43·5	+ 3·6	41·4	38·4	5·2	9·4	1·8	82·4	56·5	29·2	47·2	Sum 4·796	1·5	7·9
Number of Column for Reference	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19

The results apply to the civil day, except Columns 20 to 23 (Record of the Night Sky), which relate to the period extending from dusk on the civil day named, to dawn of the following day.

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

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

*Rainfall (Column 16). The amounts entered on December 3, 16, 17, 18, 19, 20 and 31 are derived from frost.

The mean reading of the *Barometer* for the month was 29·549in., being 0·243in. lower than the average for the 65 years, 1841–1905.

TEMPERATURE OF THE AIR.

The highest in the month was 57°·0 on December 14; the lowest in the month was 26°·1 on December 20; and the range was 30°·9.

The mean of all the highest daily readings in the month was 48°·1, being 3°·9 higher than the average for the 65 years, 1841–1905.

The mean of all the lowest daily readings in the month was 38°·5, being 3°·5 higher than the average for the 65 years, 1841–1905.

The mean of the daily ranges was 9°·6, being 0°·4 greater than the average for the 65 years, 1841–1905.

The mean for the month was 43°·5, being 3°·6 higher than the average for the 65 years, 1841–1905.

MONTH and DAY, 1929.	Record of the Night Sky. Polaris. Duration.	Polaris. Fraction of Total Exposure.	Ursæ Minoris. Duration.	Ursæ Minoris. Fraction of Total Exposure.	Wind as Deduced from Self-registering Anemometers. Osler's. General Direction. A.M.	General Direction. P.M.	Pressure on the Square Foot. Greatest.	Pressure on the Square Foot. Mean of 24 Hourly Measures.	Robinson's Horizontal Movement of the Air.	Clouds and Weather. A.M.	Clouds and Weather. P.M.
	hours.		hours.				lbs.	bs.	miles.		
Dec. 1	9·8	0·71	4·5	0·33	Calm : NW	NW : WSW	0·7	0·07	204	7,slt.-f,r,hy.-r : 10,r,hy.-r,m.-r,m	10,s.-cu,n,m,m.-r.-sh : 10, s.-cu, s, m : 2, m : 0, m, hy.-d
2	13·0	0·94	12·9	0·93	SW : SSW	SSW ; WSW	8·8	1·14	500	0, d : 6, w	: 10, alt.-s, n, fq.-m.-r, w : 10,n,m.-r,st.-w,w : 0
3	3·3	0·24	2·9	0·21	SW : S : SSE	SSE	1·0	0·07	231	0, ho.-fr : 0	: 9, ci, alt.-s, alt.-cu : 10, s.-cu, alt.-cu : 1 : 9, th.-cl, d
4	7·2	0·52	6·3	0·46	SSE : S : SW	SW : SSW	4·3	0·42	374	10, r : 10, m.-r	: 10, alt.-s : p.-cl, ci, cu : 1, slt.-sh : v.-cl, sh, w
5	13·0	0·95	11·9	0·86	S : SSW	SW	18·8	3·25	676	v.-cl, r, w : 10,st.-w,hy.-sq.-r,g	: 10,n,r,g,st.-w : 8,n,alt.-cu,alt.-s,r,sh,m.-r,w : 1, w : 1, w
6	1·5	0·11	1·3	0·10	SW	SW : SSW	12·7	1·34	490	1, d : 0	: 0 : 7,alt.-s,n,shs,w : 10,c.-r,w,st.-w : 10,t,l,hy.-hl,st.-w
7	5·1	0·37	4·2	0·30	SW : WSW	W : WSW : SW	22·7	4·92	847	9,fq.-shs,st.-w,g,l : 9, oc.-shs, g	: 10, n, oc.-shs, g : 10,s,alt.-s,g,oc.-m.-r : 0, st.-w, w : th.-cl
8	8·8	0·63	7·3	0·52	SW	SW : WSW	22·2	4·00	825	9, fq.-r, w, st.-w : 10, r, st.-w, g	: 10, n, hy.-r, r, w : v.-cl,alt.-s,n,slt.-shs,st.-w,g : v.-cl,sqs,r,m.-r,st.-w,g : 8,st.-w
9	11·7	0·84	11·2	0·80	WSW : SW	SW : WSW	14·0	2·77	704	1, st.-w, sh : p.-cl	: 10, n, r, w, st.-w : 10,m,s,-cu,r,st.-w,g : v.-cl,hy.-sh,slt.-sh,st.-w : 2,st.-w,w
10	1·6	0·11	0·8	0·05	WSW	WSW : SW : SSW	4·0	0·57	419	2, w : 1, ho.-fr	: 2,alt.-cu,ci.-cu,w : 3, s.-cu, w : 10, r : 10, r, m.-r
11	12·2	0·87	11·3	0·80	SW : WSW	W : WSW	17·8	3·50	817	9, r, m.-r, w : 8, st.-w	: 8, s.-cu, st.-w : 8, ci, g, st.-g : 8, g, w : th.-cl, w
12	10·3	0·73	9·4	0·67	W : WSW	WNW : W : WSW	16·5	2·24	683	5, r, st.-w : p.-cl, st.-w	: 9, n, r, hl, sh, w : 6,ci,alt.-s,n,slt.-sh,w,g : v.-cl,w,lu.-ha : 7
13	0·8	0·05	0·5	0·04	WSW	SW : WSW	4·7	0·81	458	p.-cl, d, w : th.-cl, w	: th.-cl, ci, ci.-s, s : 10, s, n, oc.-th.-cl, m.-r : 10, oc.-m.-r : 10
14	0·3	0·02	0·2	0·01	SW : WSW	WSW	4·5	1·00	495	10 : 10	: 10, s, n, m.-r, slt.-m.-r, w : 10, s, fr.-s, w : 10, slt.-m.-r, w : 10, w
15	3·5	0·25	2·0	0·14	WSW : Calm : NW	NW : NNW	2·0	0·13	217	10, c.-r,-m.-r : 10, n, fq.-r,-m.-r	8, fr.-s : 8, lu.-ha : 7, lu.-ha
16	13·3	0·95	10·5	0·75	N	N : Calm : NW	0·5	0·03	175	10 : 5, slt.-f, ho.-fr	: 0, slt.-f, m : 0, ho.-fr : 0, f, slt.-f, tk.-ho.-fr
17	5·8	0·42	0·0	0·00	W	NNW : Calm	0·6	0·04	211	0, f, slt.-f, ho.-fr : 0, slt.-f, f, ho.-fr	0, m, slt.-ho.-fr : 9, slt.-f, ho.-fr
18	9·9	0·71	9·5	0·68	Calm : WSW	Calm : S	0·0	0·00	154	9, slt.-f, ho.-fr : 0, f, ho.-fr	0, slt.-f, ho.-fr : 0, slt.-f, ho.-fr : 3, slt.-f
19	14·0	1·00	14·0	1·00	S	S : Calm : SE	1·6	0·06	205	8, ho.-fr : 0, ho.-fr	: 0, ho.-fr : 0, ho.-fr : 0, ho.-fr
20	6·2	0·44	1·5	0·11	SE : SSE	S	3·3	0·21	257	0, ho.-fr : 0, ho.-fr	: th.-cl,ci,ci.-s,alt.-cu,ho.-fr : th.-cl,ci,ci.-s,alt.-cu,ho.-fr : th.-cl : 8,th.-cl,ci.-s,ho.-fr
21	0·0	0·00	0·0	0·00	S	S : SE	4·4	0·70	346	9, sh : 10, slt.-sh, r	: 10, n, slt.-r, r : 10,n,r,oc.-m.-r : 10 : 10
22	3·9	0·28	0·0	0·00	SE	Calm	0·3	0·01	112	10, sh : 10, m.-r	: 10, r, m.-r : 10, s : 10, s slt.-f
23	0·0	0·00	0·0	0·00	Calm : SSE	SSE : SE	1·9	0·12	224	7, f : 6, ho.-fr	: 9, ci.-cu, s : 10,s,n,slt.-m,m.-r : 10 : 10, r, m.-r
24	0·3	0·02	0·0	0·00	ESE : WNW : W	W : SW : SSE	4·9	0·49	394	10, r, w, m.-r : 2, th.-cl, w	1, th.-cl : 8 : 10, r, m.-r, w
25	13·6	0·97	13·2	0·94	S : SW	SW	16·1	2·95	657	10, r, m.-r, hy.-shs, w : v.-cl, ma.-cu, w	7, n, sh, st.-w, g : 0, st.-w, w : 1, w
26	5·8	0·42	5·4	0·38	SW : WSW	WSW : SW	2·4	0·49	401	1, d : 0	1, cu : 2, s, ho.-fr
27	8·1	0·58	6·1	0·43	SSW : WSW	SW : W	3·9	0·38	368	9, r : 10, r	: p.-cl, s.-cu, alt.-s : 7, fr.-s : 10, r : 9
28	0·0	0·00	0·0	0·00	WSW : SSW	SSW : SW	5·7	0·60	372	1, ho.-fr : 1	: 10, ci.-s, s, so.-ha : 10,n,slt.-sh,slt.-r,r : 10,m.-r,w,oc.-m.-r : 10, w
29	12·7	0·91	12·0	0·86	SW : W	W : WSW	25·0	4·05	813	10, slt.-sh, r, w : 10, r, st.-w, g	: v.-cl, st.-g : p.-cl, sh, g, w : 1, w : 1, w
30	10·5	0·75	0·7	0·05	WSW : SW	SW : W : NW	4·2	0·75	461	0, w : 7	: 10,n,m.-r,r,sh,w : 9,s.-cu,n,oc.-shs,w : 10, shs : 3, th.-cl, d
31	12·6	0·90	5·4	0·39	W : WSW	W : WSW	0·8	0·08	308	0, ho.-fr : 1, ci, ci.-cu, m	0, m : 6, f : 0, slt.-f, ho.-fr
Means	7·1	0·51	5·3	0·38	..	..	..	1·20	432		
Number of Column for Reference	20	21	22	23	24	25	26	27	28	29	30

The mean *Temperature of Evaporation* for the month was 41°·4, being 2°·9 higher than
The mean *Temperature of the Dew Point* for the month was 38°·4, being 2°·0 higher than
The mean *Degree of Humidity* for the month was 82·4, being 5·1 less, than
The mean *Elastic Force of Vapour* for the month was 0·234in., being 0·018in. greater than
} the average for the 65 years, 1841–1905.

The mean amount of *Cloud* for the month (a clear sky being represented by 0 and an overcast sky by 10) was 6·3.

The mean proportion of *Sunshine* for the month (constant sunshine being represented by 1) was 0·194. The maximum daily amount of *Sunshine* was 6·5 hours on December 19.

The highest reading of the *Solar Radiation Thermometer* was 73°·1 on December 6; and the lowest reading of the *Terrestrial Radiation Thermometer* was 12°·0 on December 19.

The *Proportions of Wind* referred to the cardinal points were N. 2, E. 1, S. 12, W. 13. Three days were calm.

The *Greatest Pressure of the Wind* in the month was 25·0 lbs. on the square foot on December 29. The mean daily *Horizontal Movement of the Air* for the month was 432 miles; the greatest daily value was 847 miles on December 7, and the least daily value was 112 miles on December 22.

Rain (0·005in. or over) fell on 23 days in the month, amounting to 4·796in., as measured by gauge No. 6 partly sunk below the ground; being 2·969in. greater than the average fall for the 65 years, 1841–1905.

HIGHEST and LOWEST READINGS of the BAROMETER, reduced to 32° FAHRENHEIT, as extracted from the PHOTOGRAPHIC RECORDS.

MAXIMA.		MINIMA.	
Greenwich Mean Time, 1929.	Reading	Greenwich Mean Time, 1929.	Reading.
January.		**January.**	
d. h. m.	in.	d h. m.	in.
3. 20. 25	30·266	6. 7. 0	29·926
8. 22. 5	30·633	10. 15. 30	30·269
12. 20. 40	30·527	15. 15. 0	29·649
19. 18. 0	30·152	21. 16. 0	29·960
23. 20. 40	30·155	26. 4. 30	29·835
26. 22. 15	29·999	29. 7. 10	29·818
30. 11. 0	29·989		
February.		**February.**	
		1. 8. 10	29·529
2. 0. 50	29·759	2. 14. 20	29·658
7. 12. 30	30·204	10. 8. 55	29·639
11. 8. 55	29·860	11. 21. 10	29·735
12. 19. 50	29·983	15. 16. 30	29·459
21. 0. 40	30·337	24. 15. 0	29·463
March.		**March.**	
1. 10. 35	30·631	5. 15. 0	29·887
7. 11. 40	30·308	10. 18. 0	30·006
13. 9. 20	30·362	22. 3. 50	29·869
29. 7. 30	30·388		
April.		**April.**	
		1. 15. 45	29·553
4. 0. 25	29·881	5. 3. 55	29·544
6. 23. 35	30·155	9. 6. 25	29·801
9. 20. 20	29·931	10. 12. 30	29·794
11. 20. 40	29·952	13. 3. 15	29·736
14. 5. 55	29·829	15. 4. 30	29·577
17. 9. 30	30·188	19. 19. 0	29·718
20· 22. 5	30·069	23. 4. 30	29·739
23. 23. 20	29·856	24. 15. 10	29·715
25. 7. 30	29·908	29. 12. 35	29·237
May.		**May.**	
1. 8. 20	29·704	2. 15. 30	29·622
3. 21. 40	29·926	6. 11. 10	29·167
10. 8. 20	30·043	12. 16. 0	29·764
13. 7. 40	29·878	14. 15. 45	29·586

MAXIMA.		MINIMA.	
Greenwich Mean Time, 1929.	Reading.	Greenwich Mean Time, 1929.	Reading.
May.		**May.**	
d. h. m.	in.	d. h. m.	in.
17. 22. 40	30·084	24. 4. 0	29·604
25. 11. 30	29·978	27. 2. 10	29·764
30. 6. 10	30·117	31. 15. 0	29·991
June.		**June.**	
1. 9. 30	30·099	4. 11. 45	29·502
5. 6. 55	29·624	6. 17. 30	29·131
11. 6. 40	30·165	13. 2. 5	29·536
13. 21. 0	29·798	14. 20. 45	29·579
15. 14. 45	29·841	16. 5. 0	29·740
17. 11. 15	30·122	19· 18. 0	29·980
21. 9. 30	30·264	24. 16. 50	29·716
28. 7. 20	30·062	30. 17. 40	29·630
July.		**July.**	
1. 22. 10	29·749	4. 5. 20	29·481
5. 7. 15	29·743	6. 7. 0	29·661
14. 7. 25	30·249	17. 1. 0	29·788
19. 7. 15	30·012	20. 18. 48	29·803
20. 19. 56	29·879	21. 16. 55	29·807
23. 9. 0	29·939	24. 18. 40	29·744
27. 13. 20	30·080	29. 5. 30	29·490
30. 8. 15	29·728		
August.		**August.**	
		1. 3. 10	29·094
2. 21. 35	29·888	4. 15. 10	29·443
5. 20. 5	29·790	6. 19. 0	29·506
10. 22. 5	29·955	11. 16. 40	29·854
13. 0. 0	30·066	17. 2. 5	29·619
19. 9. 50	30·111	24. 15. 45	29·874
26. 9. 40	30·050	28. 2. 45	29·632
29. 21. 5	29·925	31. 13. 35	29·595
September.		**September.**	
2. 9. 40	29·986	4. 16. 0	29·718
7. 8. 50	30·236	9. 16. 0	29·802
11. 0. 0	30·046	12. 13. 30	29·775
16. 10. 0	30·062	18. 18. 0	29·648
19. 9. 45	29·773	20. 10. 55	29·472

MAXIMA.		MINIMA.	
Greenwich Mean Time, 1929.	Reading	Greenwich Mean Time, 1929.	Reading
September.		**September.**	
d. h. m	in.	d h. m.	in.
21. 2. 50	29·836	21. 14. 25	29·651
25. 10. 0	30·321	30. 23. 0	29·665
October.		**October.**	
1. 11. 10	29·849	2. 3. 40	29·359
2. 19. 32	29·487	3. 6. 10	29·359
4. 8. 45	29·625	6. 13. 10	28·962
7. 11. 0	29·608	8. 15. 0	29·232
10. 9. 35	30·146	11. 3. 10	29·996
15. 8. 35	30·251	16. 14. 15	29·786
17. 7. 30	29·889	20. 20. 25	29·021
21. 21. 40	29·703	24. 16. 30	28·923
27. 22. 50	29·840	29· 4. 15	29·137
31. 19. 45	30·243		
November.		**November.**	
		3. 2. 10	29·992
4. 9. 0	30·300	6. 12. 30	29·439
7. 11. 10	29·781	8. 6. 20	29·407
9. 9. 55	29·861	10. 8. 45	29·501
11. 2. 0	29·862	12. 2. 25	28·845
15. 8. 25	29·522	16. 9. 0	28·803
18. 10. 25	29·953	23. 13. 42	29·115
24. 17. 50	29·644	25. 14. 30	29·195
27. 9. 27	29·804	28. 16. 25	29·078
29. 3. 50	29·379		
December.		**December.**	
		1. 3. 0	29·047
1. 22. 58	29·459	2. 15. 10	29·034
3. 20. 30	29·495	4. 6. 15	29·286
4. 19. 0	29·486	5. 12. 40	28·820
6. 10. 30	29·279	7. 4. 0	28·540
7. 21. 25	29·450	8. 12. 45	29·015
9. 3. 30	29·529	9. 13. 10	28·967
10. 16. 10	29·595	11. 4. 45	29·157
13. 8. 50	30·150	14. 6. 0	29·974
17. 9. 55	30·559	22. 5. 40	29·040
23. 6. 45	29·175	24. 0. 40	28·822
24. 17. 10	29·366	25. 5. 5	28·887
26. 20. 40	29·726	27. 6. 30	29·479
28. 8. 50	29·616	29. 6. 40	28·873
30. 2. 35	29·668	30. 16. 0	29·331

The readings in the above table are accurate, but the times are occasionally liable to uncertainty, as the barometer will sometimes remain at its extreme reading without sensible change for a considerable interval of time. In such cases the time given is the middle of the stationary period.
The time is Greenwich Mean Time.
The height of the barometer cistern above mean sea level is 152 feet; no correction has been applied to the reading to reduce to sea level.

HIGHEST and LOWEST READINGS of the BAROMETER in each MONTH for the YEAR 1929.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Highest.....	30·633	30·337	30·631	30·188	30·117	30·264	30·249	30·111	30·321	30·251	30·300	30·559
Lowest	29·649	29·459	29·869	29·237	29·167	29·131	29·481	29·094	29·472	28·923	28·803	28·540
Range	0·984	0·878	0·762	0·951	0·950	1·133	0·768	1·017	0·849	1·328	1·497	2·019

The highest reading in the year was 30·633in. on Jan. 8. The lowest reading in the year was 28·540in. on Dec. 7. The range of reading in the year was 2·093in.

MONTHLY RESULTS OF METEOROLOGICAL ELEMENTS for the YEAR 1929.

MONTH, 1929.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.								Mean Temperature of Evaporation.	Mean Temperature of the Dew Point.	Mean Degree of Humidity. (Saturation = 100.)
		Highest.	Lowest.	Range in the Month.	Mean of all the Highest.	Mean of all the Lowest.	Mean of the Daily Ranges.	Monthly Mean.	Excess of Mean above the Average of 65 years.			
	in.	°	°	°	°	°	°	°	°	°	°	
January	30·095	51·0	23·0	28·0	38·9	31·1	7·8	34·8	−3·8	33·4	30·8	85·1
February	29·910	53·2	12·0	41·2	37·8	26·3	11·5	31·9	−7·6	30·3	26·4	80·5
March	30·158	70·3	20·6	49·7	55·4	32·7	22·7	42·9	+1·0	39·5	34·4	72·5
April	29·806	74·1	25·4	48·7	54·6	36·1	18·5	44·5	−2·8	40·4	34·3	68·2
May	29·815	83·2	29·1	54·1	65·5	43·7	21·7	53·7	+0·6	48·6	42·8	67·2
June	29·837	82·7	43·2	39·5	68·7	48·9	19·9	57·9	−1·5	52·5	47·3	68·5
July	29·865	90·3	45·9	44·4	76·2	53·1	23·1	63·4	+0·8	57·1	51·9	66·3
August	29·825	90·5	45·0	45·5	74·0	52·2	21·9	61·7	+0·1	56·8	52·6	72·6
September	29·938	89·1	39·9	49·2	75·5	52·5	22·9	63·0	+5·7	57·8	53·5	71·6
October	29·654	67·1	29·0	38·1	58·7	42·6	16·1	50·6	+0·6	47·6	44·2	78·8
November	29·566	60·0	25·9	34·1	51·4	39·1	12·3	45·5	+2·0	43·4	40·7	83·6
December	29·549	57·0	26·1	30·9	48·1	38·5	9·6	43·5	+3·6	41·4	38·4	82·4
		Highest	Lowest	AnnualRange								
Means	29·835	90·5	12·0	78·5	58·7	41·4	17·3	49·5	−0·1	45·7	41·4	74·8

MONTH, 1929.	Mean Elastic Force of Vapour.	Mean Temperature of the Earth 4 feet below the surface of the soil.	Mean Amount of Cloud (0-10).	RAIN.		WIND.										
				Number of Rainy Days (0·005 in. or over).	Amount collected in Gauge No. 6, whose receiving Surface is 5 inches above the Ground.	From Osler's Anemometer. Number of Hours of Prevalence of each Wind referred to different Points of Azimuth.								Number of Calm or nearly Calm Hours	Mean Daily Pressure on the Square Foot.	From Robinson's Anemometer. Mean Daily Horizontal Movement of the Air.
						N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
	in.	°			in.	h	h	h	h	h	h	h	h	h	lbs.	miles.
January	0·170	43·2	8·1	13	0·734	120	127	45	43	75	67	26	57	184	0·13	237
February	0·139	40·9	7·1	9	0·507	19	117	153	65	64	48	11	15	180	0·21	246
March	0·198	40·0	4·5	2	0·038	38	135	134	11	28	98	22	35	243	0·07	183
April	0·197	43·2	7·2	11	1·159	121	179	43	19	20	132	48	66	92	0·31	289
May	0·276	46·6	5·9	10	1·820	33	144	102	37	64	190	25	25	124	0·39	280
June	0·328	51·6	6·9	12	1·230	92	62	55	23	30	157	146	47	108	0·30	279
July	0·388	54·4	6·0	11	1·758	36	57	61	33	13	228	113	37	166	0·24	239
August	0·398	56·3	6·8	11	2.153	31	12	1	20	39	298	145	47	151	0·20	237
September	0·412	57·1	4·1	4	0·167	60	68	74	30	19	149	79	35	206	0·18	210
October	0·291	54·5	7·0	14	2·573	65	12	15	5	43	234	190	59	121	0·41	291
November	0·254	50·0	7·4	21	4·734	55	7	3	21	141	281	94	38	80	0·52	325
December	0·234	47·2	6·3	23	4·796	23	3	2	42	121	281	175	36	61	1·20	432
Sums	..	..	..	141	21·669	693	923	688	349	657	2163	1074	497	1716	..	..
Means	0·274	48·7	6·4	..	..	..	..	..	..	..	..	..	..	..	0·35	271

The greatest recorded pressure of the wind on the square foot in the year was 25·0 lbs. on December 29.

The greatest recorded daily horizontal movement of the air in the year was 847 miles on December 7.

The least recorded daily horizontal movement of the air was 55 miles on March 3.

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

1929.

Hour, Greenwich Mean Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Midnight	30·099	29·903	30·173	29·882	29·819	29·852	29·882	29·828	29·948	29·643	29·592	29·552	29·843
1h	30·097	29·901	30·171	29·817	29·817	29·850	29·879	29·824	29·946	29·644	29·582	29·538	29·839
2	30·098	29·898	30·166	29·812	29·813	29·845	29·873	29·819	29·945	29·641	29·576	29·538	29·835
3	30·097	29·895	30·159	29·809	29·811	29·842	29·870	29·812	29·942	29·638	29·569	29·532	29·831
4	30·093	29·894	30·156	29·805	29·810	29·842	29·869	29·812	29·938	29·636	29·566	29·522	29·829
5	30·089	29·897	30·159	29·806	29·813	29·845	29·871	29·815	29·940	29·639	29·566	29·515	29·830
6	30·087	29·895	30·162	29·812	29·818	29·849	29·874	29·821	29·944	29·645	29·565	29·513	29·832
7	30·091	29·900	30·169	29·816	29·822	29·856	29·876	29·826	29·948	29·654	29·569	29·516	29·837
8	30·098	29·907	30·177	29·818	29·822	29·856	29·876	29·831	29·951	29·665	29·574	29·525	29·842
9	30·105	29·913	30·180	29·819	29·822	29·853	29·876	29·833	29·954	29·672	29·574	29·542	29·845
10	30·110	29·916	30·180	29·817	29·820	29·850	29·873	29·834	29·952	29·671	29·576	29·549	29·846
11	30·108	29·919	30·175	29·812	29·819	29·845	29·869	29·829	29·946	29·670	29·571	29·550	29·843
Noon	30·099	29·915	30·169	29·806	29·814	29·840	29·865	29·826	29·937	29·661	29·561	29·541	29·836
13h	30·089	29·908	30·158	29·801	29·810	29·834	29·860	29·821	29·930	29·652	29·553	29·535	29·829
14	30·086	29·902	30·147	29·793	29·805	29·827	29·855	29·818	29·921	29·646	29·550	29·540	29·824
15	30·087	29·901	30·137	29·784	29·801	29·821	29·850	29·817	29·914	29·641	29·550	29·550	29·821
16	30·089	29·903	30·131	29·784	29·798	29·815	29·847	29·815	29·910	29·641	29·552	29·557	29·820
17	30·091	29·909	30·131	29·783	29·801	29·810	29·845	29·815	29·912	29·646	29·558	29·563	29·822
18	30·094	29·918	30·138	29·786	29·804	29·811	29·847	29·817	29·917	29·657	29·564	29·569	29·827
19	30·093	29·924	30·144	29·797	29·810	29·815	29·849	29·823	29·928	29·664	29·567	29·576	29·833
20	30·095	29·929	30·151	29·807	29·821	29·822	29·858	29·836	29·939	29·665	29·569	29·582	29·840
21	30·096	29·930	30·155	29·814	29·829	29·833	29·865	29·842	29·945	29·666	29·567	29·588	29·844
22	30·095	29·933	30·156	29·814	29·832	29·838	29·869	29·845	29·949	29·666	29·562	29·588	29·846
23	30·095	29·934	30·154	29·815	29·834	29·839	29·869	29·847	29·949	29·666	29·557	29·588	29·846
24	30·092	29·935	30·152	29·813	29·832	29·838	29·866	29·846	29·948	29·662	29·552	29·582	29·843
Means 0h.–23h.	30·095	29·910	30·158	29·806	29·815	29·837	29·865	29·825	29·938	29·654	29·566	29·549	29·835
Means 1h.–24h.	30·095	29·911	30·158	29·806	29·815	29·837	29·864	29·826	29·938	29·654	29·564	29·550	29·835
No. of Days Employed	31	28	31	30	31	30	31	31	30	31	30	31	..

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

1929.

Hour, Greenwich Mean Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	34·1	30·4	37·6	40·2	47·7	52·7	56·6	56·1	57·2	48·3	44·7	42·8	45·7
1h	33·9	30·0	37·0	39·7	46·7	51·7	55·9	55·3	56·4	47·7	44·2	42·8	45·1
2	33·8	29·8	36·4	39·1	45·8	50·9	55·1	54·7	55·7	47·2	43·8	42·7	44·6
3	33·2	29·6	36·0	38·6	45·2	50·4	54·5	54·1	55·0	46·7	43·0	42·4	44·1
4	33·1	29·3	35·5	38·2	44·8	49·9	53·8	53·7	54·6	46·4	42·7	42·1	43·7
5	32·9	28·8	35·6	38·0	45·4	50·7	54·4	53·7	54·7	46·3	42·6	42·4	43·8
6	33·1	28·8	35·5	38·7	47·4	52·8	56·5	54·9	55·0	46·0	42·7	42·6	44·5
7	33·1	29·2	36·0	40·8	50·3	55·3	59·9	57·6	56·9	46·8	42·9	42·5	45·9
8	33·4	29·7	38·4	43·2	53·5	57·5	63·2	60·7	60·3	48·6	43·5	42·3	47·9
9	33·8	31·2	41·7	46·0	55·9	59·6	66·0	63·7	64·2	50·8	45·3	42·5	50·1
10	34·5	33·0	44·8	47·9	58·0	61·1	68·3	65·8	67·1	53·4	46·6	43·5	52·0
11	35·6	34·1	47·8	49·1	59·3	62·8	69·9	67·6	70·0	54·9	47·6	44·8	53·6
Noon	36·6	35·4	50·3	50·5	61·2	64·0	71·2	69·4	71·9	56·2	48·6	45·9	55·1
13h	37·2	35·9	52·3	51·2	62·2	64·3	72·0	70·3	72·8	56·6	48·9	46·4	55·8
14	37·5	36·3	53·8	51·5	62·8	64·9	72·6	70·4	73·3	56·4	49·2	46·4	56·3
15	37·4	36·0	53·6	51·5	62·1	65·4	72·9	69·9	73·1	56·0	48·5	45·6	56·0
16	36·7	35·3	52·8	51·1	61·6	65·1	71·6	69·3	72·0	55·0	47·5	44·8	55·2
17	36·0	34·0	50·6	50·0	60·2	63·8	70·4	67·4	69·8	53·5	46·5	44·1	53·9
18	35·6	32·9	47·4	48·1	58·5	62·6	68·7	65·8	67·2	51·7	46·0	43·6	52·3
19	35·2	32·2	44·7	45·9	56·0	60·4	66·2	63·6	64·4	50·7	45·7	43·2	50·7
20	35·0	31·5	42·7	44·1	53·6	58·1	63·2	61·4	62·1	49·9	45·7	43·0	49·2
21	34·9	31·0	41·2	42·5	51·5	56·1	60·9	59·7	60·3	49·2	45·5	42·9	48·0
22	34·7	30·8	39·8	41·2	50·2	54·7	59·4	58·3	59·0	48·6	45·4	42·9	47·1
23	34·5	30·4	39·1	40·4	49·2	53·7	58·1	57·1	58·0	48·2	45·1	42·6	46·4
24	34·3	29·8	38·1	39·9	48·1	52·6	56·9	56·3	57·0	47·7	44·9	42·5	45·7
Means 0h.–23h.	34·8	31·9	42·9	44·5	53·7	57·9	63·4	61·7	63·0	50·6	45·5	43·5	49·5
Means 1h.–24h.	34·8	31·9	43·0	44·5	53·8	57·9	63·4	61·7	63·0	50·6	45·5	43·5	49·5
No. of Days Employed	31	28	31	30	31	30	31	31	30	31	30	31	..

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

1929.

Hour, Greenwich Mean Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	32·8	29·2	36·2	37·8	45·3	49·8	54·0	54·0	55·0	46·2	43·0	40·9	43·7
1h	32·5	28·8	35·9	37·5	44·6	49·2	53·6	53·4	54·5	45·9	42·6	40·9	43·3
2	32·5	28·7	35·4	37·0	44·0	48·8	53·1	52·9	53·9	45·5	42·2	41·0	42·9
3	32·1	28·4	35·0	36·8	43·6	48·4	52·8	52·6	53·4	45·2	41·6	40·6	42·5
4	31·9	28·2	34·4	36·5	43·3	48·1	52·2	52·2	53·1	44·9	41·2	40·4	42·2
5	31·8	27·8	34·5	36·5	43·7	48·8	52·7	52·2	53·3	44·9	41·2	40·7	42·3
6	32·0	27·8	34·4	37·1	45·1	50·2	54·1	53·2	53·6	44·6	41·3	40·7	42·8
7	32·1	28·2	34·9	38·5	46·9	51·5	56·0	55·0	55·2	45·2	41·6	40·7	43·8
8	32·3	28·7	36·7	40·2	48·9	52·5	57·5	56·7	57·4	46·6	42·2	40·7	45·0
9	32·6	29·8	39·3	41·9	50·2	53·5	58·7	58·2	59·3	48·1	43·6	40·8	46·3
10	33·2	31·2	41·3	42·9	51·4	54·4	59·5	58·9	60·4	49·7	44·5	41·6	47·4
11	34·2	32·0	43·1	43·5	51·8	55·1	60·2	59·5	61·3	50·3	45·1	42·3	48·2
Noon	35·0	32·9	44·3	44·1	52·7	55·6	60·8	60·1	61·7	50·8	45·6	43·0	48·9
13h	35·3	33·2	45·2	44·5	52·9	55·8	61·1	60·4	62·0	50·7	45·8	43·4	49·2
14	35·5	33·4	45·9	44·3	53·2	56·1	61·3	60·9	62·2	50·6	45·7	43·2	49·4
15	35·3	33·2	45·7	44·2	52·8	56·1	61·3	60·8	62·2	50·4	45·1	42·5	49·1
16	34·7	32·6	45·2	43·8	52·6	56·0	60·9	60·4	61·9	49·9	44·5	42·2	48·7
17	34·3	31·9	44·1	43·4	51·5	55·6	60·1	59·9	60·9	49·5	43·8	41·7	48·1
18	34·0	31·2	42·3	42·4	51·0	54·8	59·4	59·0	60·1	48·4	43·6	41·2	47·3
19	33·8	30·7	40·8	41·3	49·7	53·7	58·3	58·2	59·2	48·0	43·5	41·1	46·5
20	33·7	30·0	39·7	40·4	48·7	52·9	56·9	57·3	57·9	47·4	43·5	41·0	45·8
21	33·6	29·7	38·8	39·4	47·9	52·1	55·9	56·5	57·0	47·0	43·5	41·0	45·2
22	33·5	29·4	37·8	38·6	47·2	51·3	55·4	55·5	56·1	46·6	43·5	40·8	44·6
23	33·2	29·2	37·4	38·0	46·5	50·6	54·8	54·8	55·4	46·2	43·3	40·6	44·2
24	33·1	28·7	36·7	37·6	45·7	49·7	54·3	54·2	54·7	45·7	43·1	40·5	43·7
Means 0h.–23h.	33·4	30·3	39·5	40·4	48·6	52·5	57·1	56·8	57·8	47·6	43·4	41·4	45·7
Means 1h.–24h.	33·4	30·3	39·5	40·4	48·6	52·5	57·1	56·8	57·8	47·6	43·4	41·4	45·7
No. of Days Employed	31	28	31	30	31	30	31	31	30	31	30	31	..

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

1929.

Hour, Greenwich Mean Time.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Means.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Midnight	30·7	26·8	34·1	34·1	42·5	46·7	51·7	52·3	53·2	43·9	40·8	38·1	41·2
1h	30·1	26·2	34·1	34·2	42·0	46·5	51·6	51·7	53·0	43·9	40·6	38·1	41·0
2	30·2	26·4	33·6	33·7	41·7	46·5	51·1	51·1	52·4	43·5	40·1	38·5	40·7
3	29·9	25·8	33·0	34·1	41·5	46·1	51·1	51·1	52·0	43·5	39·6	37·9	40·5
4	29·7	25·9	32·4	34·0	41·4	46·1	50·6	50·7	51·7	43·2	39·0	37·9	40·2
5	29·7	25·6	32·5	34·3	41·5	46·7	51·0	50·7	52·1	43·3	39·2	38·2	40·4
6	29·9	25·6	32·4	34·8	42·4	47·5	52·1	51·6	52·4	42·9	39·3	37·9	40·7
7	30·6	26·2	32·8	35·0	43·0	47·7	52·7	52·8	53·9	43·3	39·8	38·0	41·3
8	30·6	26·7	34·2	35·9	43·9	47·6	52·8	53·4	55·0	44·3	40·5	38·4	41·9
9	30·7	27·4	35·6	36·1	44·1	47·7	52·8	53·8	55·5	45·1	41·4	38·3	42·4
10	31·2	27·8	36·1	35·9	44·5	48·1	52·6	53·4	55·3	45·8	41·9	38·9	42·6
11	31·8	27·9	36·6	35·8	43·9	48·0	52·6	53·1	54·8	45·5	42·1	38·8	42·6
Noon	32·3	28·6	36·1	35·3	44·0	48·0	52·7	52·8	54·1	45·2	41·9	39·2	42·5
13h	32·1	28·6	35·7	35·4	43·3	48·1	52·6	52·6	53·9	44·5	41·9	39·5	42·3
14	32·2	28·3	35·3	34·5	43·3	48·1	52·5	53·7	54·0	44·5	41·5	39·0	42·2
15	31·8	28·3	35·1	34·1	43·1	47·6	52·3	53·9	54·1	44·5	40·9	38·2	42·0
16	31·4	27·8	34·8	33·5	43·3	47·7	52·6	53·6	54·3	44·5	40·8	38·5	41·9
17	31·5	27·8	35·1	34·1	42·1	48·2	51·9	54·1	54·1	45·3	40·5	38·4	41·9
18	31·4	28·1	35·1	34·3	43·0	47·5	51·9	53·6	54·7	44·8	40·6	37·7	41·9
19	31·5	28·2	35·0	34·6	42·9	47·3	51·8	53·9	55·1	45·0	40·7	38·0	42·0
20	31·5	27·5	35·3	34·9	43·3	47·9	51·5	54·1	54·6	44·7	40·7	38·0	42·0
21	31·5	27·4	35·1	34·8	43·9	48·1	51·6	53·9	54·3	44·5	41·0	38·2	42·0
22	31·6	26·8	34·8	34·6	43·7	47·9	52·0	53·2	53·8	44·3	41·1	37·6	41·8
23	31·1	26·8	34·9	34·3	43·5	47·4	51·9	52·9	53·2	43·9	41·0	37·6	41·5
24	31·2	26·4	34·6	34·1	43·0	46·6	52·1	52·5	52·8	43·5	40·8	37·5	41·3
Means 0h.–23h.	31·0	27·2	34·6	34·7	43·0	47·5	52·0	52·8	53·8	44·3	40·7	38·3	41·7
Means 1h.–24h.	31·1	27·2	34·6	34·7	43·0	47·5	52·0	52·8	53·8	44·3	40·7	38·3	41·7

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

Hour, Greenwich Mean Time.	1929.												Yearly Means.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Midnight	86	85	87	78	82	80	84	87	86	84	86	84	84
1h	85	85	89	80	84	82	85	87	88	86	87	84	85
2	86	86	90	81	86	85	87	88	88	87	87	85	86
3	88	85	90	83	87	86	89	90	89	88	88	84	87
4	87	86	89	84	88	87	89	90	90	88	87	85	87
5	89	86	89	86	86	87	89	90	91	89	88	85	88
6	89	86	89	85	82	82	85	89	91	89	88	84	87
7	90	87	89	79	76	76	77	84	89	87	89	84	84
8	89	87	84	75	70	70	69	77	83	85	89	86	80
9	87	84	79	68	64	64	63	70	74	81	86	85	75
10	86	83	72	63	61	62	57	64	66	75	84	84	71
11	86	78	65	60	57	58	54	59	59	70	81	80	67
Noon	84	75	59	56	53	56	52	55	53	66	78	77	64
13h	82	73	53	55	50	56	51	54	51	64	77	77	62
14	81	71	49	51	49	54	49	55	51	64	74	75	60
15	80	72	49	51	50	53	48	56	51	65	75	76	61
16	80	73	51	51	51	53	51	57	53	68	77	79	62
17	83	78	56	55	52	57	52	62	57	74	79	80	65
18	84	83	62	59	56	58	55	65	64	77	81	80	69
19	86	84	69	65	61	62	60	71	72	81	83	83	73
20	86	84	74	70	68	69	66	76	76	82	83	83	76
21	86	85	79	74	75	75	71	81	81	84	84	84	80
22	87	84	82	78	79	78	77	83	83	85	85	83	82
23	86	85	85	78	80	79	80	85	84	85	86	83	83
24	87	86	87	79	82	80	84	87	85	85	85	83	84
Means 0h.–23h.	86	82	74	69	69	69	68	74	74	79	83	82	76
Means 1h.–24h.	86	82	74	69	69	69	68	74	74	79	83	82	76

TOTAL AMOUNT OF SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN EACH MONTH, AS DERIVED FROM THE RECORDS OF THE CAMPBELL-STOKES SELF-REGISTERING INSTRUMENT FOR THE YEAR 1929.

Month, 1929.	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.
	5h	6h	7h	8h	9h	10h	11h	Noon.	13h	14h	15h	16h	17h	18h	19h	20h				
	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h		°
January ..	—	—	—	—	1·9	3·8	4·1	4·5	4·8	5·2	4·1	2·1	—	—	—	—	30·5	259·3	0·118	18
February ..	—	—	—	1·1	3·9	5·8	5·2	7·3	7·0	6·9	7·1	4·1	0·7	—	—	—	49·1	267·7	0·183	26
March	—	—	1·0	8·3	12·0	14·2	16·6	17·8	18·9	22·4	19·9	18·1	13·1	2·8	—	—	165·1	366·2	0·451	37
April	—	1·2	3·5	9·6	12·1	12·1	11·9	14·7	12·5	11·1	13·4	12·9	9·7	6·3	0·3	—	131·3	414·1	0·317	48
May	0·9	9·2	13·9	17·5	14·6	17·3	18·3	18·5	20·6	20·9	19·9	18·8	17·9	16·8	13·9	1·9	240·9	481·8	0·500	57
June	3·6	10·4	12·2	13·7	14·5	14·3	13·5	15·2	14·0	15·2	15·7	15·4	14·6	13·8	12·0	2·3	200·4	494·4	0·405	62
July	2·7	13·4	17·0	19·3	19·3	19·8	19·9	17·4	17·1	17·0	16·4	15·2	18·2	19·0	16·8	3·1	251·6	497·4	0·506	60
August	—	3·6	11·3	14·7	16·6	17·0	16·1	18·5	19·7	16·9	15·2	10·3	11·8	11·4	3·4	—	186·5	449·9	0·415	52
September	—	—	2·9	12·9	18·6	18·0	19·8	21·0	20·1	21·5	21·4	19·0	15·1	4·9	0·1	—	195·3	378·0	0·517	41
October ..	—	—	0·1	4·1	12·3	13·9	15·2	13·4	13·7	12·1	10·0	7·0	2·7	—	—	—	104·5	329·4	0·317	30
November..	—	—	—	—	4·0	6·5	7·4	8·6	9·3	10·5	7·7	1·3	—	—	—	—	55·3	265·4	0·208	20
December ..	—	—	—	—	0·3	6·0	10·1	10·0	9·1	7·6	3·9	0·2	—	—	—	—	47·2	243·9	0·194	16
For the Year	7·2	37·8	61·9	101·2	130·1	148·7	158·1	166·9	166·8	167·3	154·7	124·4	103·8	75·0	46·5	7·3	1657·7	4447·5	0·373	..

The hours are reckoned from " apparent " midnight.

READINGS OF THERMOMETERS ON THE ORDINARY STAND IN THE MAGNETIC PAVILION ENCLOSURE IN THE YEAR 1929.

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

JANUARY.

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°
1	40·0	34·9	35·7	37·8	39·6	38·2	33·8	35·9	37·0	36·6
2	40·1	34·4	35·1	39·1	37·9	35·1	33·2	36·6	33·7	32·2
3	36·8	34·0	35·0	36·4	35·7	34·4	32·0	33·0	31·4	30·8
4	35·2	33·5	34·5	35·2	34·8	34·7	32·1	31·7	31·8	32·9
5	34·7	29·1	29·7	29·4	30·2	30·4	27·9	28·6	28·3	29·0
6	31·2	30·0	30·2	30·6	31·0	30·6	29·0	29·8	30·1	28·0
7	32·9	29·3	29·8	31·1	32·2	32·6	29·0	30·3	30·8	31·7
8	34·4	29·1	33·1	33·6	31·8	32·5	32·0	32·8	31·3	32·3
9	36·7	30·1	33·9	35·6	34·9	31·4	33·4	35·1	34·4	31·2
10	37·9	30·2	35·6	37·7	35·8	35·2	35·1	36·8	35·2	34·6
11	35·4	30·4	33·2	31·8	31·5	31·3	30·8	29·8	29·8	29·6
12	33·9	29·2	31·3	32·6	33·6	29·9	29·2	30·8	31·8	28·8
13	37·0	23·3	30·6	35·9	36·7	36·6	29·8	35·1	35·7	34·1
14	39·0	34·1	36·5	37·8	38·7	35·2	35·4	36·4	36·9	34·3
15	40·0	33·2	34·4	35·7	39·4	35·2	32·8	34·9	36·2	32·7
16	35·2	28·1	28·6	32·7	30·8	28·6	26·7	30·7	28·4	26·1
17	35·2	25·1	27·8	33·7	34·5	31·0	26·5	31·5	32·5	30·8
18	43·7	26·8	34·3	38·7	43·6	42·3	33·2	36·8	41·4	41·5
19	46·3	33·3	38·3	44·8	44·9	34·0	36·8	40·9	40·5	33·8
20	45·9	29·0	31·4	42·4	44·8	32·5	30·8	39·6	40·4	31·8
21	40·2	26·3	32·6	35·1	39·8	37·4	31·8	34·6	39·2	37·1
22	37·8	34·6	36·6	36·3	37·2	35·2	36·4	36·0	36·6	34·9
23	38·5	34·7	36·5	38·2	37·8	37·2	35·9	35·9	35·8	35·8
24	38·5	34·0	34·6	36·6	38·0	35·9	33·8	35·0	36·2	34·7
25	37·0	30·0	31·8	35·0	34·5	35·3	31·0	33·4	33·6	32·8
26	38·2	29·5	32·9	37·6	35·0	30·0	31·6	34·2	31·7	28·0
27	34·7	23·0	28·2	31·6	34·2	30·6	26·8	29·8	31·9	28·9
28	42·4	29·0	30·6	38·0	40·2	39·1	30·0	36·0	38·1	38·4
29	43·1	34·0	36·7	39·4	40·5	43·1	35·9	38·6	39·9	42·7
30	51·0	43·0	46·6	49·2	49·8	43·6	46·5	48·1	48·1	42·9
31	49·1	42·0	43·0	46·3	48·6	42·3	42·7	45·6	47·0	41·8
Means	38·8	31·2	33·8	36·6	37·4	34·9	32·6	35·0	35·3	33·6

FEBRUARY.

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°
1	52·7	41·8	47·2	51·3	50·6	48·5	46·8	49·6	48·6	47·0
2	48·8	40·3	40·8	42·3	43·1	42·6	40·6	41·8	42·5	41·9
3	42·9	27·6	33·8	37·7	36·6	27·6	30·0	31·8	31·0	25·8
4	35·6	22·9	25·3	31·9	34·6	26·6	24·8	29·9	31·6	26·6
5	42·6	26·1	36·3	40·6	42·6	39·1	35·2	38·8	40·2	37·2
6	42·5	35·1	38·8	41·7	41·2	37·8	37·8	39·0	39·2	37·0
7	37·9	30·0	33·0	35·1	35·9	31·3	31·4	32·8	33·8	29·8
8	42·7	29·3	36·2	40·0	41·3	30·6	34·1	37·0	37·7	30·1
9	43·8	27·9	36·4	42·3	42·1	41·5	34·4	40·5	40·8	40·9
10	41·9	32·8	36·4	37·2	37·6	32·8	35·7	36·4	36·5	31·8
11	32·8	21·1	24·0	25·4	24·8	21·3	22·7	23·6	21·2	18·5
12	27·3	18·1	22·4	25·6	25·5	20·6	20·8	22·9	22·7	19·6
13	26·2	18·5	23·5	24·9	24·8	19·2	22·5	23·0	21·7	18·1
14	27·1	17·1	22·5	25·7	26·2	20·4	21·6	22·8	22·8	19·3
15	27·9	12·0	16·7	26·7	25·6	23·3	15·4	24·9	24·6	22·9
16	28·7	22·8	25·3	26·7	28·5	28·6	24·5	25·1	24·9	26·2
17	29·3	21·1	28·0	27·6	29·2	21·4	26·5	25·9	26·8	20·8
18	37·0	16·0	20·5	34·1	35·6	29·7	19·1	31·0	31·8	28·9
19	33·2	27·8	28·8	30·6	32·2	27·8	27·6	29·0	30·2	26·7
20	41·8	24·0	31·4	40·6	39·1	29·9	30·0	36·7	36·0	28·9
21	48·9	23·7	35·5	44·9	46·8	32·8	32·7	38·8	39·5	30·6
22	53·2	24·0	35·0	49·3	51·2	36·7	32·5	41·8	42·8	32·6
23	46·8	33·9	41·2	46·3	46·0	44·4	39·1	43·5	44·6	43·8
24	44·8	36·2	38·3	40·7	44·5	36·9	38·3	40·5	42·8	35·8
25	36·9	29·5	31·0	31·4	31·5	30·0	30·3	30·8	30·4	29·0
26	30·3	29·0	29·5	29·6	29·5	30·3	29·0	28·9	28·5	29·1
27	30·3	25·3	26·2	26·7	27·1	25·8	24·7	24·2	24·3	23·9
28	36·5	25·7	29·7	33·3	34·6	30·5	26·7	29·7	30·8	29·1
Means	38·2	26·4	31·2	35·4	36·0	31·0	29·8	32·9	33·2	29·7

MARCH.

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°
1	40·7	25·1	31·2	38·1	39·1	30·5	29·0	32·5	33·4	29·0
2	41·0	23·1	30·8	38·6	40·1	28·1	28·3	33·3	33·7	26·5
3	42·7	21·2	31·7	34·8	39·7	38·8	30·2	31·9	35·1	34·5
4	40·4	28·2	37·1	37·9	39·5	29·2	35·0	34·0	35·7	28·1
5	44·5	20·6	25·6	30·8	43·6	40·5	25·2	30·8	37·8	38·4
6	51·6	38·1	40·7	48·6	48·1	42·4	37·3	42·9	42·3	39·6
7	50·2	32·8	40·3	46·4	47·7	32·8	38·7	42·0	41·7	32·1
8	61·0	26·0	40·3	53·6	58·8	37·8	37·7	46·7	49·0	36·0
9	67·7	31·4	43·1	60·5	67·0	41·5	40·0	50·1	52·0	38·3
10	65·0	31·0	46·8	62·6	64·6	44·2	42·8	51·1	49·6	39·1
11	65·1	30·2	44·5	56·6	63·6	45·2	39·4	47·8	50·4	39·8
12	48·5	35·8	41·4	48·4	46·6	39·7	38·5	43·8	43·6	39·3
13	43·3	37·9	40·3	41·4	43·2	38·4	38·8	39·7	40·8	37·5
14	38·4	32·5	34·2	36·6	37·8	33·4	33·8	35·4	36·8	32·8
15	38·3	31·4	35·2	37·5	37·0	36·6	34·6	36·7	36·3	35·8
16	43·4	33·1	37·8	39·5	40·1	33·4	35·7	36·8	36·8	31·8
17	56·2	29·1	32·4	42·0	55·4	38·0	32·2	39·0	47·8	36·0
18	62·3	28·0	40·6	55·6	60·7	39·2	38·4	47·0	47·9	37·8
19	43·4	30·6	31·9	36·6	43·1	34·2	31·8	35·9	39·9	34·1
20	69·0	30·0	34·4	55·8	65·3	45·0	34·0	49·0	52·8	42·2
21	63·0	40·9	50·5	57·6	59·0	52·3	49·0	53·8	54·0	50·4
22	62·0	49·2	51·9	57·6	61·5	50·6	50·8	52·8	53·1	47·8
23	58·3	38·0	44·0	51·7	54·7	44·6	42·8	46·3	46·7	40·7
24	62·0	34·0	48·6	58·5	59·6	44·7	45·2	50·4	50·6	43·5
25	64·2	44·0	51·6	56·2	59·6	51·4	49·4	51·8	52·4	49·6
26	62·8	44·8	51·6	59·6	61·4	44·8	47·8	50·7	51·7	44·1
27	66·7	35·6	43·5	62·6	65·6	51·4	42·8	52·3	53·9	45·1
28	68·7	34·2	54·6	65·9	64·3	43·9	48·8	52·4	53·6	41·7
29	68·5	33·4	52·6	63·8	67·1	48·6	47·8	52·8	55·4	44·8
30	70·3	37·0	50·3	66·1	70·0	48·5	46·4	54·2	54·5	43·9
31	58·9	42·5	52·2	58·0	57·4	46·5	46·3	48·8	47·7	41·0
Means	55·4	33·2	41·7	50·3	53·6	41·2	39·3	44·3	45·7	38·8

APRIL.

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
d	°	°	°	°	°	°	°	°	°	°
1	55·9	42·0	48·6	48·9	51·6	44·4	43·9	44·7	42·8	38·9
2	52·6	37·0	42·3	45·7	49·3	39·5	39·1	40·0	40·4	36·9
3	50·2	37·3	43·8	46·6	46·5	40·8	38·0	38·9	38·4	38·2
4	50·7	36·2	40·1	47·5	48·8	40·8	38·0	41·8	41·6	39·8
5	50·0	34·8	45·7	45·6	45·5	36·2	43·8	43·8	41·0	32·8
6	54·8	25·4	42·9	48·7	52·4	36·8	37·4	40·7	41·4	31·8
7	61·7	33·0	46·9	55·5	59·6	46·7	41·8	47·2	49·6	40·2
8	60·3	35·9	49·9	58·2	59·3	46·1	45·5	49·0	50·2	43·1
9	56·7	41·2	47·6	48·5	55·3	44·6	45·6	45·8	48·5	41·7
10	51·7	38·3	44·4	45·2	47·7	40·8	39·3	42·5	41·0	37·6
11	45·9	36·1	41·4	45·5	38·6	36·6	37·9	39·8	36·8	35·4
12	38·0	33·6	37·3	37·4	37·9	34·8	36·6	36·3	36·8	34·6
13	45·2	34·7	40·7	42·5	43·6	39·8	39·9	41·5	41·8	39·6
14	52·3	35·7	38·6	45·8	50·0	44·1	38·0	43·0	44·9	41·6
15	54·0	37·9	49·7	50·8	50·4	43·8	44·9	44·9	43·8	40·8
16	54·8	39·1	42·8	47·6	53·8	40·2	40·9	44·1	47·8	39·2
17	66·8	29·7	51·4	63·6	65·5	50·4	46·8	52·7	52·9	46·0
18	69·4	47·1	59·7	67·7	68·2	52·7	54·8	58·7	58·9	49·9
19	74·1	40·9	64·6	70·8	73·5	56·2	54·8	54·5	55·9	48·8
20	56·3	39·6	44·8	49·6	50·0	39·8	40·5	41·6	41·3	35·2
21	56·0	31·0	46·4	51·7	51·6	38·7	38·9	41·8	40·8	36·1
22	52·7	31·6	43·6	47·6	48·8	41·4	38·0	39·4	40·3	36·1
23	49·3	37·4	45·2	47·6	48·6	43·2	40·5	42·0	41·8	37·7
24	59·6	32·6	47·6	55·7	53·3	37·3	41·6	45·2	45·0	35·0
25	53·1	35·0	43·5	49·9	48·4	41·7	37·4	41·7	40·8	37·7
26	53·8	36·8	43·4	47·7	49·2	44·2	38·8	42·7	43·8	41·9
27	54·7	39·2	48·4	49·2	51·6	44·5	43·9	44·6	45·5	41·7
28	60·6	40·8	49·3	59·7	52·4	48·0	46·8	50·6	47·9	46·0
29	52·0	39·8	46·2	50·6	45·0	40·3	43·7	45·9	44·2	39·4
30	50·3	39·6	42·0	44·5	48·4	42·0	39·0	40·1	41·4	38·1
Means	54·8	36·6	46·0	50·5	51·5	42·5	41·9	44·1	44·2	39·4

READINGS OF THERMOMETERS ON THE ORDINARY STAND IN THE MAGNETIC PAVILION ENCLOSURE—*continued.*
(The readings of the maximum and minimum thermometers apply to the twenty-four hours ending 21h.)

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
MAY.										
d	°	°	°	°	°	°	°	°	°	°
1	53·0	29·1	47·2	49·0	46·1	38·7	40·1	41·6	39·9	36·6
2	53·7	30·9	48·5	52·4	51·3	40·6	41·6	42·8	41·5	36·1
3	56·9	36·7	50·2	55·4	52·6	39·4	41·0	44·8	43·4	37·0
4	61·8	33·9	50·8	54·2	57·9	50·6	47·0	49·5	51·3	48·6
5	55·5	48·8	51·6	53·4	53·8	52·9	50·2	51·7	52·6	52·5
6	57·4	44·1	55·2	52·1	51·6	44·8	51·4	46·8	46·4	42·6
7	60·9	42·0	52·1	56·6	56·6	46·6	46·8	49·3	49·7	43·9
8	61·4	44·0	53·6	58·5	58·2	49·4	47·6	49·6	50·1	45·2
9	62·0	42·1	55·4	57·1	60·4	47·0	47·9	47·8	50·0	45·0
10	67·8	40·3	59·7	65·6	65·4	49·1	49·9	52·0	50·6	42·6
11	60·3	42·6	51·6	54·2	56·8	52·0	47·9	50·9	52·3	50·4
12	60·5	50·6	53·7	53·6	55·2	51·5	51·9	52·7	52·8	49·8
13	63·0	42·0	56·6	59·6	61·4	50·4	49·4	51·3	52·7	48·9
14	62·6	44·2	54·2	59·6	58·2	51·3	48·8	52·7	52·0	47·7
15	65·8	47·2	55·3	58·5	61·6	52·0	51·2	50·9	52·7	47·4
16	65·9	44·0	59·1	61·6	61·6	49·8	50·7	50·9	52·5	46·9
17	62·1	41·2	51·5	61·6	59·0	49·6	48·0	52·9	50·2	44·9
18	61·0	44·0	45·6	54·7	58·8	50·2	43·8	49·0	51·6	48·2
19	62·9	42·0	57·4	60·4	61·0	48·6	50·1	49·6	47·5	44·1
20	67·6	39·1	55·5	63·1	66·9	48·2	48·9	52·7	55·0	44·2
21	71·2	37·4	60·2	69·3	69·1	53·2	51·8	57·1	57·3	47·7
22	78·5	45·1	67·2	75·1	72·6	64·3	56·7	60·8	59·8	56·8
23	83·2	53·0	70·7	80·7	81·7	61·8	60·3	63·9	62·6	55·5
24	78·4	54·0	66·4	71·6	63·2	59·3	59·8	61·8	59·0	57·9
25	76·6	55·0	62·1	69·6	75·0	61·6	56·3	56·8	57·8	51·8
26	72·3	49·3	65·4	71·0	70·9	63·2	58·6	59·6	58·3	57·7
27	78·4	55·7	64·0	75·0	77·0	66·6	60·0	65·8	64·8	60·7
28	73·8	51·6	59·4	67·8	71·9	53·9	56·0	60·9	61·9	51·7
29	62·7	46·8	49·6	52·7	61·6	50·7	46·9	48·5	52·4	47·4
30	66·6	44·0	54·1	66·6	63·2	49·8	50·9	57·3	53·8	46·8
31	65·8	43·9	48·1	56·1	63·6	49·3	45·8	50·9	55·8	48·0
Means	65·5	44·0	55·9	61·2	62·1	51·5	50·2	52·7	52·8	47·9
JUNE.										
d	°	°	°	°	°	°	°	°	°	°
1	70·4	49·1	52·6	62·5	65·5	54·6	49·6	54·7	57·6	51·9
2	71·2	52·0	57·7	61·7	68·5	60·6	56·5	58·7	61·9	57·8
3	71·2	55·1	61·3	70·0	67·6	55·6	57·3	61·2	56·6	51·6
4	65·9	49·5	59·7	62·3	62·6	50·6	53·3	54·6	54·6	50·6
5	59·9	43·2	50·6	57·2	52·7	48·8	48·4	50·6	51·0	48·4
6	63·2	47·5	56·1	58·1	59·0	53·9	53·4	55·3	56·5	50·7
7	67·7	47·9	59·8	59·6	65·6	55·4	52·8	52·0	55·8	52·0
8	57·3	45·2	55·6	54·2	54·3	53·6	51·4	52·6	52·8	52·6
9	72·8	45·8	59·5	66·9	70·4	58·7	54·0	56·0	55·9	52·8
10	71·5	49·9	61·8	67·6	67·0	56·3	52·5	55·9	54·3	53·2
11	73·0	44·0	67·7	72·6	70·4	57·5	56·5	56·8	56·1	52·8
12	69·0	53·1	58·7	65·8	68·0	63·5	56·6	59·8	61·9	62·8
13	69·5	52·7	63·0	64·6	68·9	52·9	56·7	57·8	57·5	49·2
14	64·2	50·1	59·5	61·7	60·2	52·6	53·9	53·9	54·0	51·5
15	71·7	49·1	61·5	69·7	64·0	55·8	55·8	58·9	55·7	52·2
16	69·8	54·7	56·7	59·9	66·6	60·0	51·8	54·1	56·4	54·5
17	72·5	49·4	64·0	64·9	70·7	57·2	54·8	56·2	57·8	52·7
18	78·9	44·6	68·0	72·8	77·8	63·6	58·0	60·8	63·3	56·8
19	82·7	48·7	71·7	77·6	80·1	64·9	60·0	63·3	64·3	57·5
20	74·3	54·6	65·8	71·0	69·6	58·7	59·5	62·2	60·8	51·0
21	68·4	50·8	62·0	64·2	63·2	57·0	53·0	52·8	52·6	50·0
22	67·3	53·0	59·2	61·5	63·6	62·3	52·8	55·9	60·7	59·1
23	73·0	56·6	63·2	70·1	71·0	57·0	58·9	60·7	54·8	48·1
24	66·2	49·3	56·2	58·6	61·6	52·6	49·0	50·4	50·7	46·8
25	66·9	47·3	56·1	60·6	61·7	53·0	48·1	49·9	50·8	47·7
26	71·1	46·0	57·9	64·6	66·8	54·9	51·8	54·8	53·8	51·6
27	60·0	47·1	52·8	53·9	59·9	54·7	47·3	48·8	52·6	50·9
28	70·8	46·4	60·8	66·6	67·6	51·7	53·8	54·9	56·8	49·1
29	65·1	44·3	55·8	63·3	62·8	51·1	50·0	53·8	53·2	47·6
30	56·7	49·0	52·6	54·7	55·6	52·5	48·9	49·8	50·9	48·7
Means	68·7	49·2	59·6	64·0	65·4	56·1	53·5	55·6	56·1	52·1

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
JULY.										
d	°	°	°	°	°	°	°	°	°	°
1	62·6	49·1	53·2	60·6	60·6	53·4	49·0	52·9	54·2	50·3
2	66·5	48·3	60·6	63·1	62·5	54·1	53·2	55·0	55·8	53·3
3	76·1	53·7	64·7	69·2	72·7	60·4	58·0	58·8	62·1	56·9
4	73·0	56·7	59·2	64·5	70·6	56·9	58·7	62·3	62·8	53·3
5	68·6	51·6	63·6	66·0	67·2	55·4	55·6	55·8	56·2	51·4
6	69·9	52·2	60·2	67·7	60·6	56·6	54·8	57·8	55·1	50·6
7	64·7	47·0	57·4	57·5	62·2	54·4	51·8	49·9	52·1	49·2
8	66·7	45·9	55·1	60·0	63·5	56·6	47·8	49·8	52·4	50·2
9	74·4	49·3	65·9	71·6	69·4	58·0	56·3	59·4	58·7	53·4
10	79·1	52·9	69·1	74·3	73·7	61·1	59·9	62·3	59·9	54·1
11	85·2	57·2	71·8	81·4	82·3	66·5	60·4	65·8	66·1	60·3
12	88·1	52·0	75·6	82·6	84·7	58·6	63·2	64·4	65·0	55·3
13	75·6	50·0	64·8	72·1	74·8	58·4	55·9	58·0	60·2	53·0
14	78·4	46·2	69·6	74·4	75·8	60·8	57·7	62·8	63·6	54·8
15	76·8	47·2	70·5	74·5	75·0	61·3	59·4	60·8	61·1	57·9
16	86·0	58·1	72·1	81·5	83·6	67·0	64·3	67·5	67·1	64·1
17	84·7	61·1	73·6	82·6	82·4	67·2	65·0	66·9	65·4	59·2
18	83·0	56·0	68·1	75·0	79·5	63·5	60·6	63·7	64·0	56·5
19	85·7	52·0	69·6	79·6	82·8	67·7	59·8	62·8	64·2	61·6
20	90·3	55·6	77·4	86·8	86·0	67·5	65·6	70·8	71·0	63·6
21	83·8	63·2	74·8	80·6	82·2	66·1	68·4	70·5	70·8	60·6
22	78·8	62·1	69·8	69·6	76·1	64·7	62·0	64·6	65·1	59·7
23	81·2	59·1	66·5	67·7	78·8	64·0	61·8	62·6	66·3	58·9
24	76·4	54·7	68·8	73·1	75·0	62·7	61·8	62·8	62·8	56·8
25	71·0	54·6	64·5	66·8	67·8	56·9	58·2	59·5	59·8	52·5
26	73·9	47·9	61·7	71·4	71·8	65·6	55·9	58·7	59·8	56·3
27	70·0	50·0	63·6	64·0	64·6	59·4	57·6	57·4	57·4	55·2
28	74·0	52·9	65·5	68·2	63·1	56·7	58·2	58·8	57·6	55·4
29	75·1	56·1	66·2	69·5	74·5	66·2	62·9	64·9	65·0	59·8
30	74·0	53·0	64·6	69·6	69·6	60·9	58·8	57·5	59·9	53·7
31	68·8	55·2	58·7	62·6	66·5	58·6	57·6	60·8	60·1	55·3
Means	76·2	53·3	66·0	71·2	72·9	60·9	58·7	60·8	61·3	55·9
AUGUST.										
d	°	°	°	°	°	°	°	°	°	°
1	69·0	56·0	57·8	62·6	60·5	57·6	55·4	57·8	58·3	55·4
2	63·9	50·8	56·9	58·8	61·6	51·0	51·8	54·1	54·9	50·3
3	65·4	45·0	59·7	62·6	63·6	58·8	54·7	54·8	57·0	55·4
4	74·5	52·2	61·8	68·0	71·6	57·9	57·9	60·7	61·3	56·8
5	71·4	51·7	59·9	67·2	67·2	57·5	53·4	55·4	55·2	52·9
6	66·3	53·6	60·3	65·1	62·7	59·0	58·9	62·7	61·7	57·2
7	69·0	54·1	62·3	65·4	59·6	56·4	58·4	59·8	58·1	54·8
8	69·0	50·3	59·4	67·2	64·9	58·9	52·9	56·8	55·4	52·3
9	69·3	52·7	60·9	64·6	68·1	58·7	56·4	59·4	62·4	57·2
10	78·7	55·8	66·3	73·6	74·5	62·0	60·6	63·6	63·6	59·7
11	76·4	57·0	65·2	70·7	74·1	63·9	61·4	62·3	64·6	56·7
12	75·3	53·6	64·8	72·7	72·6	57·3	57·3	59·9	59·5	52·7
13	75·0	47·4	66·6	72·3	71·6	58·5	58·8	60·1	60·3	54·5
14	75·7	54·4	67·0	70·6	72·6	60·6	60·7	59·7	59·0	52·3
15	75·8	45·4	64·5	67·4	74·6	58·4	55·8	56·0	60·0	53·6
16	73·1	47·8	65·6	70·4	70·6	58·1	57·4	59·6	60·4	57·8
17	71·2	54·3	61·8	67·1	64·8	56·6	55·8	57·5	57·5	53·7
18	69·6	52·6	60·7	61·6	61·8	55·7	54·9	55·0	56·2	54·0
19	66·7	49·9	56·4	61·2	63·6	57·5	53·0	52·9	56·2	53·8
20	72·8	50·7	63·9	70·6	68·5	60·3	56·8	59·0	56·8	55·8
21	74·0	51·3	61·4	66·6	68·6	61·2	59·1	61·0	60·9	56·5
22	73·1	56·9	62·5	67·3	68·5	62·7	58·8	60·4	61·3	59·8
23	80·0	58·3	65·4	75·6	74·4	64·6	61·7	67·5	67·7	62·4
24	79·3	59·9	65·6	69·6	76·9	65·0	61·4	63·8	68·1	63·1
25	77·6	53·6	66·7	69·7	75·6	61·1	59·7	59·1	62·8	59·8
26	76·5	48·7	68·5	75·6	75·0	59·4	62·9	64·8	63·0	57·0
27	82·2	49·1	70·3	79·6	81·1	66·9	63·1	65·8	68·6	62·4
28	77·0	60·1	71·2	74·6	69·9	60·6	64·0	60·8	60·7	57·8
29	77·0	54·1	64·6	71·6	71·7	59·5	58·1	60·9	61·0	57·0
30	79·8	49·6	64·5	73·8	74·8	59·0	58·8	61·4	62·8	55·4
31	90·5	51·2	73·1	86·5	81·3	66·6	63·8	70·9	68·4	62·2
Means	74·0	52·5	63·7	69·4	69·9	59·7	58·2	60·1	60·8	56·5

READINGS OF THERMOMETERS ON THE ORDINARY STAND IN THE MAGNETIC PAVILION ENCLOSURE—*concluded.*

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

Days of the Month.	Dry-Bulb Thermometers, 4 ft. above the Ground.						Wet-Bulb Thermometers, 4 ft. above the Ground.			
	Maximum.	Minimum.	9h	Noon.	15h	21h	9h	Noon.	15h	21h
SEPTEMBER.										
d	°	°	°	°	°	°	°	°	°	°
1	77·8	59·3	67·3	72·0	76·1	62·0	61·0	62·4	63·8	60·0
2	76·8	55·6	64·5	72·0	74·9	61·9	60·8	61·8	61·9	58·2
3	73·1	57·0	69·6	70·7	70·7	60·8	63·6	63·3	64·2	59·9
4	89·1	58·5	66·2	83·7	89·1	67·6	63·7	68·6	71·9	63·8
5	83·4	59·2	71·0	81·6	82·5	71·0	66·0	71·2	71·0	63·6
6	75·8	59·0	68·1	72·6	73·8	60·7	61·1	63·1	63·8	59·2
7	80·5	53·1	66·5	75·6	80·3	63·3	61·1	65·8	67·1	60·8
8	88·0	54·1	71·5	83·9	85·9	66·7	63·5	68·4	70·1	64·3
9	86·0	57·9	72·0	83·5	84·4	68·9	65·8	66·8	66·8	62·4
10	72·2	57·3	64·6	69·4	69·7	58·5	60·8	62·3	61·3	55·8
11	75·0	52·9	66·6	74·9	71·5	60·8	58·8	61·9	61·5	58·2
12	83·1	54·3	69·8	79·8	78·0	64·6	62·9	67·3	66·8	62·4
13	77·0	59·0	63·7	73·5	75·6	61·6	60·2	63·3	63·4	56·8
14	76·7	52·0	64·8	71·8	73·5	60·6	60·1	61·8	64·7	58·3
15	74·7	48·9	62·5	70·0	74·2	62·6	57·7	60·0	61·4	59·7
16	73·4	56·5	61·8	67·6	71·4	59·7	59·9	61·0	60·3	55·7
17	72·6	58·0	61·9	68·5	71·2	61·8	58·5	62·9	64·4	60·0
18	65·0	57·3	59·2	61·6	64·3	60·7	58·0	59·7	60·8	59·8
19	68·2	50·7	61·0	64·6	66·6	57·0	54·9	57·9	57·3	51·9
20	68·6	53·9	62·5	67·0	62·5	54·3	57·8	54·2	52·3	47·3
21	70·2	46·7	54·6	63·3	69·2	57·4	49·0	58·0	57·8	50·0
22	68·0	47·0	58·3	66·6	65·6	60·2	51·9	56·5	57·6	56·7
23	72·7	48·3	62·3	67·6	67·8	57·5	57·8	57·9	58·6	53·6
24	69·0	47·7	62·4	67·8	67·7	54·5	56·2	57·9	58·3	52·2
25	71·2	49·0	59·3	70·6	68·8	50·8	58·1	59·6	57·4	48·7
26	75·6	40·6	58·8	71·8	74·8	50·6	55·8	57·6	57·8	47·6
27	78·2	39·9	62·0	75·6	75·6	55·7	55·0	61·0	61·8	51·2
28	78·1	53·7	66·9	74·6	75·6	57·9	60·2	62·3	62·8	55·8
29	73·3	55·8	64·7	68·9	65·4	59·6	59·8	60·8	61·7	57·7
30	70·8	49·6	61·6	65·8	66·1	60·7	57·6	57·1	58·6	59·6
Means	75·5	53·1	64·2	71·9	73·1	60·3	59·3	61·7	62·2	57·0
OCTOBER.										
d	°	°	°	°	°	°	°	°	°	°
1	61·7	47·8	53·4	58·2	57·7	51·6	47·1	49·2	47·6	49·0
2	65·6	50·1	54·2	62·5	61·9	55·6	52·4	54·6	52·2	51·0
3	59·9	49·6	53·9	57·6	57·2	51·3	52·4	53·5	51·5	48·5
4	58·2	45·7	51·4	57·1	56·6	46·6	47·6	49·8	50·2	45·3
5	63·8	41·7	51·6	61·4	60·6	55·9	48·6	53·3	53·1	52·0
6	58·6	45·1	47·8	55·8	56·0	51·0	46·8	52·2	50·0	46·6
7	63·2	43·0	55·0	59·4	54·3	51·7	49·1	50·9	51·7	49·7
8	61·5	49·0	58·8	59·9	56·6	49·4	56·7	56·4	54·6	46·8
9	56·2	40·1	47·3	52·3	55·6	49·2	43·5	46·8	47·4	45·6
10	59·3	44·4	52·4	56·6	58·6	53·6	49·0	50·8	51·1	50·0
11	64·8	51·0	56·6	60·6	64·0	56·6	54·8	57·8	58·7	55·0
12	66·9	45·5	58·9	62·1	62·5	55·6	56·6	57·7	58·3	54·8
13	63·3	51·2	56·9	62·0	61·0	56·4	53·5	55·8	54·1	54·8
14	64·1	46·0	54·6	62·2	60·1	53·4	51·8	55·8	54·5	50·9
15	60·6	44·6	54·6	59·6	57·6	53·8	53·0	54·8	54·4	51·3
16	67·1	46·8	58·6	65·2	64·8	53·3	56·8	57·8	56·2	50·8
17	63·6	48·4	55·6	59·9	61·4	54·6	52·5	54·3	55·0	52·4
18	54·6	42·0	51·6	53·0	53·6	42·8	47·8	47·8	47·4	42·1
19	53·0	36·2	39·3	51·2	50·4	36·6	38·8	45·2	45·0	35·9
20	51·9	33·0	49·5	50·6	49·0	46·5	45·9	46·9	46·3	45·6
21	57·6	39·6	50·9	55·6	56·0	39·6	48·5	50·8	48·5	39·4
22	57·9	35·0	46·2	56·5	54·8	48·4	44·8	50·8	49·7	46·9
23	57·5	40·5	50·5	54·3	54·1	52·2	46·1	49·8	48·1	49·8
24	59·6	44·0	56·3	58·6	56·6	44·8	54·7	54·9	54·8	44·0
25	54·6	36·1	46·2	50·6	49·8	42·8	42·7	44·8	45·6	41·7
26	49·0	34·0	36·6	47·6	47·8	39·6	36·5	42·3	42·5	36·9
27	48·6	29·0	37·3	47·2	47·0	39·8	35·9	41·8	41·5	36·6
28	54·9	33·0	41·3	47·0	53·1	54·6	39·5	45·9	51·8	52·8
29	56·3	48·0	52·2	54·4	53·9	48·5	47·9	47·8	48·1	46·8
30	53·0	44·7	50·2	51·6	51·6	45·1	47·8	47·2	45·8	41·0
31	53·4	40·0	45·2	51·7	51·2	44·6	42·8	47·8	46·9	43·0
Means	58·7	42·7	50·8	56·2	56·0	49·2	48·1	50·8	50·4	47·0

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

AMOUNT OF RAIN COLLECTED IN EACH MONTH OF THE YEAR 1929.

Gauges partly sunk in the Ground in the Magnetic Pavilion Enclosure.	Number of Gauge.	Monthly Amount of Rain collected in each Gauge.												Height of Receiving Surface.	
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Sums.	Above the Ground.	Above Mean Sea Level.
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	ft. in	ft. in.
	6	0·734	0·507	0·038	1·159	1·820	1·230	1·758	2·153	0·167	2·573	4·734	4·796	21·669	0 5	149 6
	8	0·734	0·522	0·043	1·060	1·823	1·205	1·758	2·173	0·160	2·607	4·744	4·700	21·529	1 0	150 1
Number of Rainy Days (0·005in. or over).	..	13	9	2	11	10	12	11	11	4	14	21	23	141	..	..

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

Hour Ending	1929.												
	January.	February	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Mean for the Year.
h	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1	10·3	9·7	6·2	10·6	9·9	10·9	7·7	8·6	7·1	12·1	14·2	17·4	10·4
2	9·6	9·7	6·4	10·0	9·6	10·0	7·3	8·1	7·2	11·2	14·4	18·0	10·1
3	9·1	9·8	6·4	9·8	9·0	9·3	7·7	8·0	7·0	10·9	13·3	18·2	9·9
4	9·5	9·3	6·2	10·3	8·9	9·0	6·9	8·4	7·4	10·6	12·7	18·2	9·8
5	9·6	9·4	6·4	9·9	9·1	9·3	7·0	8·5	6·7	10·5	12·4	18·2	9·7
6	9·6	9·5	5·5	9·4	8·6	10·2	7·2	8·6	7·0	10·5	11·8	17·5	9·6
7	9·6	9·6	5·9	10·0	9·6	10·9	8·0	9·0	7·3	10·4	11·8	18·5	10·1
8	9·4	9·9	6·4	10·7	10·0	11·2	8·5	8·9	7·1	9·8	11·7	17·9	10·1
9	9·2	10·1	7·3	11·7	11·1	11·4	9·5	10·1	7·9	10·0	12·2	18·3	10·7
10	9·4	9·6	7·6	13·0	12·5	12·5	9·8	10·5	8·8	10·9	13·3	18·4	11·4
11	9·8	11·3	8·5	13·6	13·2	12·4	10·6	11·0	9·4	12·7	13·6	19·6	12·1
Noon	10·4	12·3	9·2	14·0	13·9	12·1	11·8	11·7	10·3	13·9	14·7	20·5	12·9
13h	9·9	10·4	8·5	15·1	15·3	13·7	11·8	12·6	10·7	15·2	15·4	20·6	13·3
14	10·6	11·1	9·6	15·0	15·5	13·3	12·3	12·7	10·4	15·5	15·2	20·6	13·5
15	10·5	10·9	9·9	14·8	15·6	13·4	12·1	12·0	10·9	14·7	15·4	19·8	13·3
16	11·0	10·9	9·6	14·9	15·1	13·3	13·5	11·7	10·9	15·3	13·9	17·8	13·2
17	10·8	11·3	9·2	14·6	15·2	13·5	13·1	11·4	10·7	13·8	13·7	17·3	12·9
18	10·4	10·9	9·0	14·6	14·1	13·2	12·6	11·1	10·4	12·9	13·3	16·5	12·4
19	9·9	10·9	8·5	13·4	12·7	12·9	11·7	10·2	10·0	12·2	13·5	16·7	11·9
20	10·2	11·2	7·9	12·8	11·1	12·7	11·7	9·7	9·3	12·7	13·5	16·5	11·6
21	10·1	9·7	7·4	12·0	10·0	11·4	10·3	9·7	9·0	11·5	13·6	16·4	10·9
22	9·5	9·2	7·5	10·0	9·8	10·3	10·0	8·4	8·6	11·3	13·4	16·2	10·3
23	9·5	9·3	7·2	9·9	10·2	11·1	9·5	8·5	8·1	11·5	13·4	16·3	10·4
Midnight	9·1	9·6	6·8	9·5	9·7	11·3	8·5	8·0	7·3	11·2	14·0	16·7	10·1
Means	9·9	10·2	7·6	12·1	11·7	11·6	10·0	9·9	8·7	12·1	13·5	18·0	11·3
Greatest Hourly Measures (1)	25	37	22	36	43	30	30	30	35	34	42	51	..
Greatest Hourly Measures (2)	21	29	19	28	33	24	24	24	29	27	32	38	

(1) Deduced by the motion of the cups by the formula $V=3v$;
(2) ,, ,, ,, ,, ,, ,, $V=2v+4$;
where v is the hourly motion of the cups in miles. *See* Introduction.

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